

TAKING THE LEAD IN ANTITRUST ENFORCEMENT: EVALUATING INNOVATION AND TECHNOLOGY

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I. Introduction

Innovation and technology have not only changed our daily lives, but they have also evolved and transformed competition law and its enforcement. Innovations have the extraordinary and almost unimaginable potential to deliver important benefits both to competition and to consumers, in terms of newer, cheaper, and better services. Moreover, they have the ability to stimulate further developments and spark new business models, once again to the immense benefit of consumers. In other words, disruptive innovations disrupt, which is to say that they drastically alter existing markets.¹ Such innovations lead to the breakthroughs that bring about radical changes, which are unforeseen by markets and occur irregularly.² These so-called “disruptive innovations,” driven by technology-focused undertakings such as Apple, Google, Uber, Airbnb, and Amazon, have brought their disruptive effects not only on the products or services they have created or contributed to, but also on how the global competition law enforcement authorities respond to this brand new world.³

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¹ Jeremy West, *Hearing on Disruptive Innovation*, 123rd meeting of the Organization for Economic Cooperation and Development (“OECD”) Competition Committee, 16-18, June 2015, 2, [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP\(2015\)3&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP(2015)3&docLanguage=En) (last visited Nov. 27, 2018).

² *Ibid.*

³ Wei Hsin-Fang, *Does Disruptive Innovation “Disrupt” Competition Law Enforcement? The Review and Reflection*, 2, <https://www.ftc.gov.tw/upload/636d4e6f-2570-4b26-b746-d0904c18e2db.pdf> (last visited Nov. 26, 2018).

Accordingly, it is easy to see that competition law regulations should not be stuck in a rut, but rather endeavor to change and adapt to the new digital world. This brings us to the crucial question of when, how, and to what extent competition authorities should react to these radical changes. I believe that any intervention should only be undertaken after an optimum amount of observation and careful consideration, and any such intervention also has to be positive for and in support of innovation. On the other hand, there is a fine line between promoting innovation and shutting one's eyes to "innovative" wrongdoings for the so-called "greater good." Therefore, even though there is broad consensus among practitioners and regulators that innovation is one of the most significant benefits of market competition, and that paving the way for innovation and technology is of great importance both for competition and for consumers, fostering innovation does not justify and should not be used as an excuse for lowering the standards of competition law enforcement. In this regard, competition authorities should welcome, embrace and adapt to ever-developing innovations and ever-changing conditions. Otherwise, as a branch that is constantly facing and deep-diving into various fast-moving sectors, competition law enforcement would not be able to keep up with the changing circumstances in the market and would thus fail to internalize and react to the actual dynamics of these markets. Simply put, this requires competition authorities to take the necessary steps to be able to respond both to new technologies in markets and to the development of new markets. As Bruno Lasserre once stated, "*with new players and new forms of trade come new challenges for competition authorities.*"⁴

The main issues that competition authorities are faced with or asked to resolve generally stem from (i) market definition, (ii) market power and dominance, and (iii) the sharing of data among undertakings that are active in vertical or horizontal markets. Even though these concepts might seem to comprise the typical/standard concerns of competition law enforcement, it is fair to say that they can undergo radical changes due to innovation and may diverge significantly from their traditional conceptions in the context of innovative markets. For instance, "market definition" is particularly important within the context of innovations, since such innovations have the ability/capacity to alter existing markets. Therefore, competition authorities should

⁴ Bruno Lasserre, *Competition Authorities and Digital Markets: The Need for an All-Around Resolute Action*, 7 JECLAP 7 (2016).

carefully consider the relevant innovation effects when determining the market definition in a particular case, in order not to fall short of conducting a proper competitive assessment.

Moreover, innovations are of great importance when determining whether an undertaking is in a dominant position with market power in a relevant market. The dynamic structure of innovative markets and the evolving nature of technological advancements enable new, unexpected and powerful entrants into the relevant markets, which can cause the market power to shift easily and quickly to other undertakings. In other words, innovation can either lead to the replacement of incumbent undertakings, expand the market size, or create new markets by introducing brand new ideas; in sum, the alteration of markets caused by innovations is dramatic and fundamental, though irregular.⁵

Furthermore, competition enforcement authorities must be aware that two-sided markets⁶ differ significantly from traditional markets in various important aspects. Accordingly, any competitive analysis pertaining to two- or multi-sided platforms should take care to consider all sides of the market, and thus acknowledge that it is impossible to address the question of market power in multi-sided platforms without giving due consideration to the combined and interrelated effects of a platform on all of its customer groups.⁷ Moreover, the growing importance and increasing usage of data could play a key role in the assessment of mergers and acquisitions,⁸ superseding traditional parameters such as the combined market share of the relevant undertakings. Therefore, competition authorities will need to consider the value and

⁵ Hsin-Fang, *supra* note 3, 4.

⁶ “A two-sided market is a platform which enables the interaction between two (or more) distinct types of affiliated customers.” See Andrei Hagiu & Julian Wright, *Multi-Sided Platforms*, Harvard Business School, Working Paper No. 12-024, 7; Marc Rysman, *The Economics of Two-Sided Markets*, *Journal of Economic Perspectives*, Vol. 23, No. 3, 126; Jean-Charles Rochet & Jean Tirole, *Two-Sided Markets: A Progress Report*, 2006, *The RAND Journal of Economics*, Vol. 37(3), 645-646.

⁷ David S. Evans, *The Antitrust Economics of Multi-Sided Platform Markets*, 20 *Yale J. Reg.* (2003), 360, <https://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?referer=https://www.google.com.tr/&httpsredir=1&article=1144&context=yjreg> (last visited Nov. 27, 2018).

⁸ For instance, Lasserre and Mundt have noted that, “For companies a merger can be a possible strategy to obtain access to new data by acquiring or merging with a – often small and innovative – company that possesses large amounts of relevant data. In data-related markets such a merger could increase the concentration of relevant data and restrict entry and expansion for new companies.” (Bruno Lasserre & Andreas Mundt, *Competition Law And Big Data: The Enforcers’ View*, *Italian Antitrust Review*, N. 1 (2017), 92, https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Fachartikel/Competition_Law_and_Big_Data_The_enforcers_view.pdf?__blob=publicationFile&v=2 (last visited Dec. 4, 2018).

content of transferred/shared data in innovative markets in order to enable and facilitate an accurate assessment of market power for the relevant undertakings.

In addition, unlike in most traditional economic sectors, the digital economy is increasingly interconnected. Therefore, some coordination and cooperation between firms may be unavoidable and may, in fact, be pro-competitive.⁹ Surveying the new terminology and innovations that have been introduced by the digital era, we observe that blockchain technology, to take one illustrative example, requires wide distribution of information among blockchain members concerning their transactions on the platform.¹⁰ Even though blockchain technology might raise certain anti-competitive concerns and might even lead to collusion allegations, it would be prudent to evaluate these matters on a case-by-case basis, given that information exchanges on blockchain technology can also generate substantial efficiencies by improving contractibility.¹¹ Therefore, although direct competitors using shared blockchains or collaborating in blockchain consortia¹² are especially likely to be susceptible to antitrust scrutiny,¹³ competition authorities should not put aside or overlook the question of whether the efficiencies created by the relevant blockchain technology outweighs its damage to the market. In addition, algorithm-driven computer programs have increasingly become key instruments for market success in a digitalized economy.¹⁴ Similarly, even though algorithms have the potential to enable tacit collusion and adversely affect consumer choice, they can certainly generate positive effects on consumer welfare and welfare in general as well.

⁹ OECD, *The Digital Economy, Innovation and Competition*, <http://www.oecd.org/daf/competition/OECDwork-Digital-Economy-Innovation-Competition2017-web.pdf> (last visited Nov. 26, 2018).

¹⁰ Lin William Cong & Zhiguo He, *Blockchain Disruption and Smart Contracts* (2018), 20, <http://www.zhiguohe.com/uploads/1/0/6/9/106923057/bdsc.pdf> (last visited Dec. 2, 2018).

¹¹ *Ibid.*

¹² Peter Gratzke, David Schatsky & Eric Piscini, *Banding together for blockchain* (16 August 2017), <https://www2.deloitte.com/insights/us/en/focus/signals-for-strategists/emergence-of-blockchain-consortia.html> (last visited Nov. 26, 2018).

¹³ Michael Ristaniemi & Klaudia Majcher, *Blockchains in competition law – friend or foe?* (21 July 2018), <http://competitionlawblog.kluwercompetitionlaw.com/2018/07/21/blockchains-competition-law-friend-foe/?print=pdf> (last visited Dec. 2, 2018).

¹⁴ Peter Georg Picht & Benedikt Freund, *Competition (Law) in the Era of Algorithms*, Max Planck Institute for Innovation and Competition Research Paper No. 18-10 (2018), 2, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3180550 (last visited Dec. 2, 2018).

Yet another topic that is relevant to this discussion is “*the extensive collection, storage, and linking of data triggered by increasing digitalization*,”¹⁵ which is known as the phenomenon of “big data.” Big data can generate economic efficiencies and can have certain pro-competitive effects; however, under certain circumstances, the collection and analysis of data can also be a factor contributing to justifiable competition concerns. For example, (i) data can be a factor contributing to market power,¹⁶ (ii) data can increase market transparency among suppliers and thereby facilitate collusion,¹⁷ and (iii) data can be an instrument for certain anti-competitive conducts.¹⁸¹⁹

That being said, the ball is once again in the competition authorities’ court to assess and find the proper balance between the efficiencies and the harms associated with such innovations. All of these developments and/or modifications concerning the interpretation of familiar concepts (as well as the introduction of brand new concepts) should naturally give rise to novel assessment methods in competition policy and lead to a corresponding adjustment in the methods and techniques employed by competition enforcement authorities.

II. Digitalization, Innovation and Competition Policy

Digitalization has rapidly transformed commercial behavior all around the world in various important ways. Digital markets, with their rapidly changing environments and highly dynamic nature, are driven primarily by innovation. These innovative efforts represent, in turn, continuous investments in research and development (“**R&D**”).²⁰ Therefore, undertakings that are already active (or that desire to become active) in digital markets must invest in R&D, which

¹⁵ Monopolkommission, *Competition policy: The challenge of digital markets*, Special Report No. 68, 2015, 27, https://www.monopolkommission.de/images/PDF/SG/s68_fulltext_eng.pdf (last visited Nov. 26, 2018).

¹⁶ For instance, “(...) *the collection of data may result in entry barriers when new entrants are unable either to collect the data or to buy access to the same kind of data, in terms of volume and/or variety, as established companies.*” Autorité de la Concurrence & Bundeskartellamt, *Competition Law and Data*, 11, http://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Berichte/Big%20Data%20Papier.pdf?__blob=publicationFile&v=2 (last visited Nov. 26, 2018).

¹⁷ For instance, “*By making the detection of a deviation from an agreement easier, market transparency lowers the expected profit and therefore the incentive of a party to deviate from a tacit or explicit collusion.*” *Id.*, at 14.

¹⁸ For example, such behavior may result in the restriction of competition if access to data is restricted by a dominant undertaking in an anti-competitive manner; moreover, data can also be a vehicle to facilitate price discrimination, etc.

¹⁹ Lasserre & Mundt, *supra* note 8, 90.

²⁰ Francisc I. Toma, *The Challenges of Digital Markets for EU Competition Law: The Case of Android*, 9 (2017), <http://dx.doi.org/10.2139/ssrn.3092823> (last visited Dec. 2, 2018).

leads to constant improvements and technological advancements to the benefit of consumers and of the market itself. These developments help to expand digital markets and have the potential to carry them to unforeseen and astounding heights (*e.g.*, the emergence and growth of the e-commerce market over the last two decades provides an illuminating example). It is apparent that such improvements can help reduce costs by refining existing products, processes, and capabilities,²¹ or by introducing something new to the market.

It is worth noting that consumers support innovation as well, since they also use digital platforms and applications to their own advantage.²² Considering the undeniable efficiencies offered by innovation to consumers' lives (and the improvements brought to the markets themselves), competition authorities should act more prudently and proceed with the utmost care when intervening in digital markets, in order to ensure that they do not inadvertently block the path of innovation altogether.

It has long been argued by the proponents of Arrow (and, to some extent, of Aghion *et al.*)²³ that competition acts “*as the driver of innovation.*” Bearing this in mind, we believe that competition should, in fact, be stationed in the front passenger seat right next to the driver (*i.e.*, in the “shotgun” position) to monitor and guide innovation. Considering that the term “shotgun” originates from the shotgun-armed guards who travelled on horse-drawn stagecoaches and wagon trains to protect the passengers, we can extend the metaphor even further and declare that it would be appropriate for competition authorities to observe and protect innovation (and thus innovative markets) solely for the interest and benefit of consumers. In other words, competition enforcement authorities should not attempt to lead the way by sitting in the driver seat and taking up the reins, and thus, they should not intervene in or restrict markets beyond what is absolutely necessary to carry out their assigned duties. In other words, “*it is important*

²¹ Joyce Verhaert, *The Challenges Involved with the Application of Article 102 TFEU to the New Economy: A Case Study of Google*, *European Competition Law Review*, Vol. 265, 266(2014).

²² Howard A. Shelanski, *Information, Innovation and Competition Policy for the Internet*, University of Pennsylvania Law Review, Vol. 161, 1685 (2013), https://scholarship.law.upenn.edu/cgi/viewcontent.cgi?referer=https://www.google.com.tr/&httpsredir=1&article=1025&context=penn_law_review (last visited Nov. 27, 2018).

²³ Alexandre de Stree & Pierre Larouche, *Disruptive Innovation and Competition Policy Enforcement*, OECD, Background Note DAF/COMP/GF(2015)7, 5. [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP/GF\(2015\)7&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP/GF(2015)7&docLanguage=En) (last visited Dec. 7, 2018).

(...) to strike a careful balance so as not to undermine undertakings' incentives to invest and innovate.'²⁴

In discussions of competition law policy, there is a growing awareness that the well-established static framework for assessing competition law matters (which has been applied in traditional markets) might not be adequate or sufficiently appropriate for dealing with innovation effects in the modern world.²⁵ At a general level, it can be observed that “*the literature calls for a change of emphasis from static efficiency and price evolution to dynamic efficiency and innovation incentives.*”²⁶ There are numerous approaches that could be adopted during this transition period in order to gain a better understanding of innovation and its possible effects. In this context, certain adjustments that could be made to current enforcement methodologies would be highly useful for the harmless integration of competition law rules with the digital era.

The existing laws and regulations are not well-suited to dealing with the challenges of the digital era or to coping with its consequences for various sectors. Therefore, they plainly lack the capacity or necessary content to respond effectively to current or future economic circumstances. This is, in fact, the natural result of the failure of public authorities to fully grasp the implications of disruptive innovation and technology.

Thus, the very first step to be taken by competition authorities should be a thorough examination of the intricacies of innovation; what it actually is, how it affects markets and what it offers to consumers. Without undertaking such a comprehensive assessment, competition authorities would fall short of detecting any misconduct and fail to distinguish right from wrong when it

²⁴ Alexander Italianer, *Innovation and competition policy in the IT sector: the European perspective*, Conference on Innovation, Competition Policy and Online Service Providers (26 June 2012), http://ec.europa.eu/competition/speeches/text/sp2012_04_en.pdf (last visited Nov. 27, 2018).

²⁵ Wolfgang Kerber, *Competition, Innovation, and Competition Law: Dissecting the Interplay*, Joint Discussion Paper Series in Economics, No. 42-2017, 12. See also Christopher Pleatsikas & David Teece, *The analysis of market definition and market power in the context of rapid innovation*, Int. J. of Ind. Org., 19, 665–693(2001); Gregory Sidak & David Teece, *Dynamic Competition in Antitrust Law*, JCLE, 5(4), 581–631 (2009); David S. Evans & Keith Hylton, *The Lawful Acquisition and Exercise of Monopoly Power and its Implications for the Objectives of Antitrust*, 4 Competition Policy International, 203-241 (2008) for their critique of the “static-ization of antitrust” and Wolfgang Kerber, *Competition, Innovation and Maintaining Diversity Through Competition Law*, in Drexler, J. et al. (Eds.), *ECONOMIC APPROACHES TO COMPETITION LAW: FOUNDATIONS AND LIMITATIONS*, Cheltenham: Edward Elgar, 173-201 (2011), de Streel & Larouche in regard to “*disruptive innovations.*”

²⁶ See de Streel & Larouche, *supra* note 23, 6.

comes to evaluating market behavior. Even if competition authorities identify a specific issue/behavior that is caused by innovation in a particular market, they could not resolve that issue or deter that behavior by applying effective and efficient tools without harming innovation and thus diminishing the benefit to consumers, unless they first comprehend what that innovation actually is and what it entails. Therefore, competition would suffer greatly if competition law regulators were to toughen the existing regulatory framework with the aim of making it more difficult (or even impossible) for new products or business models to comply with the rules.²⁷ On the contrary, competition regulators should meticulously observe, fully understand and carefully evaluate the dynamics that are generated by new products and business models, so that they can adjust and enhance the regulatory framework in accordance with the needs and requirements of an ever-changing business environment. Therefore, competition authorities should first study/digest innovation and thoroughly understand its effects, in order to preclude undermining or stifling further and greater developments in an industry, in the national economy, and possibly in the whole country.

At this point, it is worth highlighting that innovations are of immense significance for a country's competitiveness in the global economy.²⁸ It is also undoubtedly true that innovation carries greater importance for emerging countries, in order to enable them to compete with larger and more developed economies around the world. An international scientific consensus has been reached that economic progress is primarily driven by innovation, and by the invention and application of new technologies in particular.²⁹ Since innovation and technology are the principal drivers of economic growth and development in the digital age,³⁰ technological progress is the key to realizing sustainable development solutions, as well as tackling economic and environmental challenges.³¹ Accordingly, the tables below clearly show that most of the

²⁷ OECD, Directorate for Financial and Enterprise Affairs Competition Committee, *Key Points of the Hearing on Disruptive Innovation (June 16-18, 2015)*, DAF/COMP/M(2015)1/ANN8/FINAL, 3, [https://one.oecd.org/document/DAF/COMP/M\(2015\)1/ANN8/FINAL/en/pdf](https://one.oecd.org/document/DAF/COMP/M(2015)1/ANN8/FINAL/en/pdf) (last visited Nov. 27, 2018).

²⁸ Hsin-Fang, *supra* note 3, 21.

²⁹ Janis Priede & Elisabeth T. Pereira, *Innovation as a Key Factor in the International Competitiveness of the European Union*, ISSN 1822–8402 EUROPEAN INTEGRATION STUDIES. 2013. No. 7, 212, <http://eis.ktu.lt/index.php/EIS/article/viewFile/4228/2979> (last visited Nov. 27, 2018).

³⁰ Cornell University, INSEAD & WIPO (2018), *The Global Innovation Index 2018: Energizing the World with Innovation*, Ithaca, Fontainebleau, and Geneva, 52, https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2018.pdf (last visited Nov. 26, 2018).

³¹ UNDP, *Sustainable Development Goals/Goal 9: Industrial Innovation and Infrastructure*, <http://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-9-industry-innovation-and-infrastructure.html> (last visited Nov. 27, 2018).

global innovation leaders are also represented on the list of the most competitive national economies in the world. These rankings explicitly illustrate the importance of innovation to national economies, especially for developing countries.

Table 1: Global Competitiveness Index 4.0

Show: All Economies

Rank / 140	Country / Economy
1	United States
2	Singapore
3	Germany
4	Switzerland
5	Japan
6	Netherlands
7	Hong Kong SAR
8	United Kingdom
9	Sweden
10	Denmark

Source: *The Global Competitiveness Report 2018*, World Economic Forum³²

Table 2: Global Innovation Index (“GI”) 2018

³² World Economic Forum, *Global Competitiveness Report 2018* (Oct. 16, 2018), 31, <https://www.weforum.org/reports/the-global-competitiveness-report-2018> (last visited Nov. 26, 2018).

Country/Economy	Score (0–100)	Rank
Switzerland	68.40	1
Netherlands	63.32	2
Sweden	63.08	3
United Kingdom	60.13	4
Singapore	59.83	5
United States of America	59.81	6
Finland	59.63	7
Denmark	58.39	8
Germany	58.03	9
Ireland	57.19	10

Source: GII 2018³³

The foregoing tables clearly demonstrate that there is a significant correlation between innovation and competitiveness, as 8 of the top 10 countries in the GII are also ranked in the top 10 of the Global Competitiveness Index. Therefore, competition authorities should ensure that they adopt a reasonable and innovation-focused approach and support innovation efforts, since conventional applications of competition law rules and inside-the-box thinking would ultimately harm the interests of consumers as much as they would harm the economic growth and development of a country.

Accordingly, legislators and enforcers should strike a suitable balance between implementing the main purpose of competition law (*i.e.*, protecting competition) and adapting to the rapid technological developments and changes in the digital era. In other words, legislators should recognize the need for a precise regulatory framework that is both flexible enough to allow new forms of competition and to address all the relevant public policy considerations at the same time.³⁴ To that end, competition authorities should revisit and revise their traditional assessment methods in such a way as to take into consideration the evolving and disruption-prone characteristics of the digital era, which they could accomplish by closely monitoring and auditing markets, launching useful market studies, seeking early discussions with relevant

³³ GII 2018, *supra* note 30.

³⁴ OECD (2015), *supra* note 27.

undertakings (*i.e.*, disruptors and innovators), and conducting workshops with academics, lawmakers, practitioners, and undertakings in the relevant markets. Thus, acting on the fundamental presumption that innovation is good for society, competition authorities should protect the process of innovation by keeping markets open (to the extent possible) for potential innovators.³⁵

In this regard, for instance, sectorial inquiries could be made obligatory for non-traditional markets, since such inquiries would be both feasible and beneficial for enhancing the awareness and knowledge of enforcers regarding the dynamics of a particular sector and the specific issues faced by undertakings in that market. This might also help avoid or reduce any unnecessary interventions by enforcement authorities and prevent unwarranted restraints on innovation, which would eventually help to keep markets open and conducive to further innovation, and thus, ultimately benefit consumers.

However, these considerations do not change the fact that competition authorities should make sure “*that markets remain open and contestable; that consumers are not harmed by distortions of the competitive process; by anti-competitive agreements, by exclusionary practices, or by exploitative practices.*”³⁶ In addition, the length of enforcement proceedings could be adjusted in order to consider and better respond to the pace of innovations. Even though a thorough investigation might come at the cost of time (*i.e.*, last longer) due to limited resources, decisions rendered at the end of an investigation should be able to reflect the dynamics of the relevant market at the time of the decision in order for such decisions to be effective and to succeed in realizing the goals of competition law. Technology changes rapidly in the 21st century and so do the markets that evolve with technology. Therefore, if the decisions implemented at the end of a thorough investigation are outdated, they carry the risk of going to waste, and more importantly, potentially harming competition in the relevant market.

³⁵ See de Stree & Larouche, *supra* note 23.

³⁶ Johannes Laitenberger, Director-General for Competition, European Commission, *Enforcing EU competition law in a time of change, “Is Disruptive Competition Disrupting Competition Enforcement?”*, W@competition Conference, Brussels, 1 March 2018, http://ec.europa.eu/competition/speeches/text/sp2018_03_en.pdf (last visited Nov. 27, 2018).

With these considerations in mind, I will now turn to a discussion of how antitrust enforcers in the European Union (“*EU*”), the United States and Turkey react to and handle innovation and technology-related issues in their decisions. The first two jurisdictions serve as fitting examples of entrenched competition authorities, and the latter is an illustrative representative of a competition authority from an emerging economy. Finally, I will summarize my arguments and offer my conclusions on the subject matter.

III. Evaluation of Innovation and Technology: How is the Antitrust Enforcement Regime Reacting to the Digital Era?

A. Online Platforms and Dynamic Settings

As highlighted above, rapid developments in technology and the emergence of dynamic markets pose certain challenges to both competition law enforcers and practitioners. Competition authorities, therefore, have taken a somewhat skeptical approach to these markets in an effort to better understand the impact of the characteristics of these markets on competition. Thus, it can be observed that competition enforcement authorities have chosen to scrutinize online platforms quite frequently in recent years.

In this context, multiple investigations that have been launched against Google provide a useful example of the increasing tendency of competition authorities to take a closer look at online platforms in an effort to catch any potential infringements in this yet unfamiliar field.

The European Commission (“*Commission*”) first accused Google due to its alleged practices in relation to (i) favoring its own online search services in a systematic way, and (ii) lowering the rankings of unpaid search results of competing services.³⁷ The Commission’s probe of Google’s practices then continued with the next investigation, *Google Shopping*, in which the Commission eventually ruled that Google had abused its market dominance as a search engine

³⁷ See European Commission - Press Release, *Antitrust: Commission probes allegations of antitrust violations by Google* (Nov. 19, 2010), http://europa.eu/rapid/press-release_IP-10-1624_en.htm (last visited Nov. 27, 2018); European Commission Fact Sheet, *Antitrust: Commission sends Statement of Objections to Google on comparison shopping service* (Apr. 15, 2018), http://europa.eu/rapid/press-release_MEMO-15-4781_en.htm (last visited Nov. 27, 2018).

by giving an illegal advantage to another Google product, namely its comparison-shopping service known as “Google Shopping”. Accordingly, the Commission concluded that Google was in violation of Article 102 of the Treaty on the Functioning of the European Union (“*TFEU*”) and imposed a monetary fine of EUR 2.42 billion on the undertaking.

Google is an illuminating case study of successful innovation that offers substantial advantages and benefits for consumers and high market shares for innovator companies.³⁸ Having said that, this market power—though nurtured by innovation—entails certain competition concerns for the companies involved, especially when they venture into other online activities, such as online shopping, advertising, news aggregation and mapping services, among others.³⁹ Although the integration of services and the relative leveraging capabilities of these firms pave the way for further innovation, the *Google Shopping* case clearly reveals the challenges facing competition authorities on how they should handle leveraging practices in digital markets. In its assessment in *Google Shopping*, the Commission put a significant amount of emphasis on the potential harm to competition in the market for comparison-shopping services. The Commission found that Google had foreclosed the market to its competitors and had abused its dominance by granting a prominent position and enhanced visibility to its integrated services (*i.e.*, Google Shopping), and thereby demoting its rivals’ products.⁴⁰

In scrutinizing the competition law issues surrounding digital markets, many scholars and competition enforcement authorities have raised difficult questions over the last decade on (i) how to deal with leveraging of market power, and (ii) how to weigh the benefits to consumers of such conduct against the potential harm to competition. The investigative and decisional practices of various competition law authorities in response to such questions reveal that they have basically adopted various different approaches. Indeed, in contrast to the Commission, the Federal Trade Commission (“*FTC*”) in the United States has given comparatively more weight to the efficiency benefits arising from Google’s practices. More specifically, although the FTC also acknowledged that fewer visuals belonging to competitors’ goods were visible on Google’s

³⁸ Oxera, *The Google case: shop till you drop (off the screen)*, 2, Agenda (Mar. 2018), <https://www.oxera.com/wp-content/uploads/2018/07/The-Google-case.pdf> (last visited Nov. 27, 2018).

³⁹ *Ibid.*

⁴⁰ See Case AT.39740 - Google Search (Shopping) – June 27, 2017, http://ec.europa.eu/competition/antitrust/cases/dec_docs/39740/39740_14996_3.pdf (last visited Nov. 27, 2018).

search results pages due to Google's product design, it nevertheless concluded that the company's primary goal was better serving its users by providing directly relevant information in response to their search queries, and hence enhancing the consumers' experience.⁴¹

Following the *Google Shopping* decision in 2017, Google has remained on the Commission's agenda in the ensuing period. In particular, the Commission initiated an investigation into Google's operating system, Android, which eventually became the highest profile antitrust case in recent memory, due to the record fine of EUR 4.34 billion that was imposed on Google in the Commission's ruling. In its relevant investigation, the Commission alleged that Google had abusively reinforced its market dominance in the market for general internet search by (i) illegally tying Google's search and browser apps, (ii) making illegal payments to device manufacturers that were conditional on the exclusive pre-installation of Google Search, and (iii) obstructing the development and distribution of competing Android-based operating systems.⁴²

At this juncture, it is apparent that the Android case will be of crucial importance to the future of competition law enforcement in the digital age, as it makes scholars and practitioners question whether Article 102 of the TFEU is sufficiently effective in addressing the competitive issues that arise from digital markets with dynamic and innovative settings. In this regard, Manne and Wright have argued that Google, characterized as a highly regarded and reputable innovator, should be cautiously approached by the antitrust enforcement authorities, "*because a false positive would chill its innovation and competition that is 'currently providing immense benefits for consumers.'*"⁴³ Indeed, the Android decision has received multiple criticisms, with Google's CEO providing perhaps the most clear-cut and captivating summary: "*Android has created more choice for everyone, not less.*"⁴⁴

⁴¹ Federal Trade Commission, *Statement of the Federal Trade Commission Regarding Google's Search Practices In the matter of Google Inc.*, FTC File Number 111-0163 (Jan. 3, 2013), <http://bit.ly/2DPBFVt> (last visited Nov. 27, 2018).

⁴² European Commission – Press Release, *Antitrust: Commission fines Google €4.34 billion for illegal practices regarding Android mobile devices to strengthen dominance of Google's search engine* (Jul. 18, 2018), http://europa.eu/rapid/press-release_IP-18-4581_en.htm (last visited Nov. 27, 2018).

⁴³ Geoffrey A. Manne & Joshua D. Wright, *Google and the Limits of Antitrust: The Case Against the Case Against Google* (2011), *Harvard J Law & Public Policy*, 34, 244 (2011), as cited in Toma, *supra* note 20.

⁴⁴ Agence France-Presse, "*Android Created More Choice For Everyone*": *Google After EU Slaps Fine* (Jul. 19, 2018), <https://www.ndtv.com/world-news/android-created-more-choice-for-everyone-google-after-eu-slaps-fine-1885828> (last visited Nov. 27, 2018).

In a recent investigation launched by Germany's Bundeskartellamt (Federal Cartel Office), the authority is looking into whether terms and conditions imposed by Amazon on the merchants lead to an abuse of dominance.⁴⁵ Noting the dual role of Amazon as the largest online retailer and the online marketplace, the investigation focuses on “*choice of law and jurisdiction clauses, rules on product reviews, the non-transparent termination and blocking of sellers' accounts, withholding or delaying payment, clauses assigning rights to use the information material which a seller has to provide with regard to the products offered and terms of business on pan-European dispatch*”⁴⁶ which have been alleged to exploit the small and medium sized sellers which are dependent on Amazon. The investigation is surely to bring a fresh look into the online marketplaces and platforms in addition to contributing to the understanding of Amazon's business model.

Another interesting characteristic of online platforms, which makes them particularly challenging for competition law enforcers, is their multi-sided nature. As multi-sided markets differ significantly from single-sided ones in a variety of aspects, the principles of competition law enforcement that are drawn from traditional, single-sided markets can often lead to misleading or erroneous outcomes when applied in multi-sided settings.⁴⁷ This was indeed the case in the *Amex* investigation,⁴⁸ which was first launched by the U.S. Department of Justice (“*DoJ*”) in 2010, and which has recently been concluded pursuant to the Supreme Court's ruling that *Amex*'s anti-steering provisions had not restricted competition in the relevant market. More specifically, the Supreme Court ruled that both sides of the two-sided credit card market (*i.e.*, cardholders and merchants) should be taken into consideration when defining the relevant product market, and added that “*the fact that two-sided platforms charge one side a price that is below or above cost reflects differences in the two sides' demand elasticity, not market power*

⁴⁵ Bundeskartellamt Press Release, *Bundeskartellamt initiates abuse proceeding against Amazon* (Nov. 29, 2018), https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2018/29_11_2018_Verfahrenseileitung_Amazon.html?nn=3591568 (last visited Dec. 6, 2018)

⁴⁶ *Ibid.*

⁴⁷ Gönenç Gürkaynak *et al.*, *Multisided markets and the challenge of incorporating multisided considerations into competition law analysis*, JA, 0, 1–30, 30 (2016), <http://www.gurkaynak.av.tr/docs/4a331-antitrust-enforcement-journal-2016.pdf> (last visited Nov. 27, 2018).

⁴⁸ *Ohio v. American Express Co.*, 585 U.S. (June 25, 2018), https://www.supremecourt.gov/opinions/17pdf/16-1454_new_1a72.pdf (last visited Nov. 27, 2018); *United States v. American Express Co.*, No. 15-1672 (2d Cir. Sep. 26, 2016).

or anticompetitive pricing.”⁴⁹ Therefore, this landmark decision provides noteworthy insights on the importance of the relevant market definition in multi-sided markets and on how the market definition impacts the ensuing competition law assessment.

In another decision involving credit-cards, *Mastercard*, the Commission rejected the arguments of Mastercard as to how the relevant product market definition should have taken both sides of the market into consideration.⁵⁰ The Commission had based its stance regarding the one-sided market definition primarily on the following reasons:

“(i) the MasterCard platform is only a vehicle for distinct suppliers to serve distinct customers as opposed to a product offered jointly to both sets of customers, (ii) such a market definition would not be appropriate for assessing the competition and different levels of interaction within the relevant scheme, and (iii) a single multisided market definition is at odds with the Commission’s decisional practice.”⁵¹

This was also essentially the case in the Commission’s *Cartes Bancaires* decision. In that case, the Commission defined the relevant product market as the “payment cards issuance market,” basing its market definition solely on one side of the market, and found these services to be distinct from the acquisition of payment and withdrawal transactions.⁵² The Court of Justice of the European Union, however, shed light on the proper product market definition in multi-sided markets by delivering two seminal rulings in *Groupement des Cartes Bancaires v Commission* and *MasterCard v Commission*.⁵³ Given that both cases concerned the “card payment systems” sector, which comprises two-sided markets due to the existence of two distinct groups of

⁴⁹ *Ohio v. American Express Co.*, 585 U.S. (June 25, 2018), at 12, https://www.supremecourt.gov/opinions/17pdf/16-1454_new_1a72.pdf (last visited Nov. 27, 2018).

⁵⁰ See Case COMP/34.579 – *MasterCard*, Case COMP/36.518 – *EuroCommerce*, Case COMP/38.580 – *Commercial Cards* (Dec. 19, 2007), [https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52009XC1106\(03\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52009XC1106(03)&from=EN) (last visited Nov. 27, 2018).

⁵¹ Gürkaynak, *supra* note 47,

⁵² See Case COMP/D1/38606 – *Groupement Des Cartes Bancaires* (Oct. 17, 2007), http://ec.europa.eu/competition/antitrust/cases/dec_docs/38606/38606_611_1.pdf (last visited Nov. 27, 2018).

⁵³ Frédéric Pradelles & Andreas Scordamaglia-Tousis, *Two Sides of the Cartes Bancaires Ruling: Assessment of the Two-Sided Nature of Card Payment Systems Under Article 101(1) TFEU and Full Judicial Scrutiny of Underlying Economic Analysis*, 139 *Competition Policy International* 4, 139, <https://www.lw.com/thoughtLeadership/two-sides-of-the-cartes-bancaires-ruling> (last visited Nov. 27, 2018).

customers and “network externalities,” the Court of Justice of the European Union took the two interlinked sides of the platform into consideration for a proper analysis of the competitive effects of the practices under investigation.⁵⁴ Indeed, many commentators on these cases agreed on the complexity of multi-sided markets and asserted that any analysis that fails to consider the contextual characteristics of these markets would fall short of reaching an appropriate case assessment from a competition law perspective.

B. Big Data Under Antitrust Review

Innovative companies have gained the upper hand in competition by collecting and processing a significant amount of data, which is a valuable business asset that has played a crucial role in the rise of the digital economy. Theories of harm, which were shaped in line with the potential use of collected data by “big data giants” (such as Google, Facebook and Amazon), have been a common topic of interest for most competition agencies that are trying to determine their next steps with regard to the evaluation of such data. Indeed, many competition authorities have paid increasing attention to the phenomenon of “big data” and focused on the question of what companies plan to do with such data. Furthermore, alongside the strategic plans of companies in relation to big data, the question of “What else can they do with it?” has been raised even more serious concerns among competition enforcement authorities as well.

For instance, in the fall of 2018, the Commission initiated a preliminary investigation against Amazon to examine and assess how Amazon uses merchant data.⁵⁵ This preliminary investigation focuses on Amazon’s dual role as both a partner and a rival to businesses that sell their merchandises on Amazon’s e-commerce platform.⁵⁶ The Commission’s main concern related to the data collected by Amazon with respect to the small merchants that it hosts on its platform, and focused on whether Amazon had ever used such data to benefit itself or gain an anti-competitive advantage in the market. Even though it is too early to speculate about the

⁵⁴ See *Case C-67/13 P – Cartes Bancaires v. European Commission* (Sep. 11, 2014), <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:62013CJ0067&from=EN> (last visited Nov. 27, 2018).

⁵⁵ *EU Commission launches new preliminary investigation into Amazon use of data*, Macfarlanes LLP (Sep. 24, 2018), <https://www.lexology.com/library/detail.aspx?g=a92c7294-ca71-497c-98d3-063d66eb43cd> (last visited Nov. 27, 2018).

⁵⁶ Guadalupe Gonzalez, *E.U. Antitrust Commission Sets Sights on Amazon. Here's Why*, Inc., <https://www.inc.com/guadalupe-gonzalez/amazon-margrethe-vestager-preliminary-investigation.html> (last visited Nov. 27, 2018).

ultimate outcome of this case, future developments will show whether the Commission believes it has sufficient evidence of wrongdoing to initiate a full-fledged investigation against Amazon and what its specific allegations might be.⁵⁷

It is no longer a debatable or controversial statement to observe that vast amounts of data provide a significant competitive advantage for companies that collect and use such data. Indeed, big data analytics enable firms to process various types of data, which has become a crucially important factor for the implementation of effective business strategies. In this regard, many firms in the digital economy carry out mergers primarily in an effort to increase and strengthen their capabilities regarding big data analytics. For example, in the merger of Publicis and Omnicom (a French multinational advertising/public relations company and an American global media, marketing and corporate communications company, respectively), the parties declared that the rationale of the merger was based on their desire to advance their activities in big data analytics in order to uncover patterns, correlations and other useful information.⁵⁸

The possession of data and data-related analytics clearly should not be problematic *per se* under competition law. As a matter of fact, competition concerns arise when a significant data set enables firms to become dominant and allows them to abuse their power due to their use of such data in shaping their business strategies and activities.

This was indeed a concern in *Microsoft/LinkedIn*,⁵⁹ where the Commission evaluated the argument that the combination of the parties' data sets could harm competition by way of increasing their market power in online advertising, and by enabling Microsoft to foreclose the market to its competitors with respect to its customer relationship management software. Though the Commission ultimately dismissed these arguments in this case, its assessment of

⁵⁷ As also stated by the Bundeskartellamt in its press release, the Commission's Amazon investigation and the Bundeskartellamt's investigation "*supplement one another*" as the Commission's probe focuses on whether Amazon uses the merchant data to benefit itself or gain an anti-competitive advantage in the market whereas the Bundeskartellamt's probe looks into Amazon's terms and business practices as a platform (*See* Bundeskartellamt *supra* note 45).

⁵⁸ *See Case M.7023 – Publicis/Omnicom* (Jan. 9, 2014), 119, para. 617, http://ec.europa.eu/competition/mergers/cases/decisions/m7023_20140109_20310_3566669_EN.pdf (last visited Nov. 27, 2018).

⁵⁹ *See Case M.8124 – Microsoft/LinkedIn* (Dec. 6, 2016), http://ec.europa.eu/competition/mergers/cases/decisions/m8124_1349_5.pdf (last visited Nov. 27, 2018).

these concerns nevertheless reveals its skeptical perspective with respect to big data and illustrates that the Commission views big data as a potential source of market power for firms. This suspicious approach has been embraced not only by the Commission, but also by several national competition enforcement authorities, such as the Bundeskartellamt. More specifically, in its case summary regarding the investigation involving Facebook, taking the strong direct network effects into account which resulted in the conclusion that Facebook's services were not comparable to those offered by Snapchat, Youtube, Twitter etc., the Bundeskartellamt found that Facebook was in a dominant position in the national market for social networks for private users.⁶⁰ The Bundeskartellamt found that it was sufficient to establish that there is causality between Facebook's dominant position and its violation of data protection requirements under General Data Protection Regulation⁶¹ in order for an abusive conduct. In this regard, Bundeskartellamt found that (i) there is normative causality with regard to the violation of data protection rules as the private users' right to self-determination is linked to Facebook's dominant position and (ii) there is causality in terms of the outcome as Facebook's abusive conduct is linked to market dominance which enables it to gain access to a large number of further resources by its inappropriate processing of data and their combination with Facebook accounts. This decision is a clear indication of Germany's competition authority taking the issues surrounding the use of "data" quite seriously.⁶² Furthermore, the French Competition Authority ("*FCA*") has recently concluded its in-depth sector inquiry into online advertising, which it aimed to have a clear framework of this data-driven market, in case it would need to conduct investigations more efficiently into the relevant cases. The final report highlighted the competitive advantage of Google and Facebook due to the fact that two companies act both publishers and technical intermediaries.⁶³ Indeed, the President of the French competition body

⁶⁰ In its dominance assessment, the Bundeskartellamt took into consideration the user-based market share, indicating that Facebook's market share exceeded 95% with respect to daily active users, 80% with respect to monthly active users, and 50% with respect to registered users and concluded that the daily active users was the key indicator to measure competitive significance and market success.

⁶¹ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), OJ 2016 L 119/1, p. 1–88.

⁶² See Bundeskartellamt Case Summary, *Facebook, Exploitative business terms pursuant to Section 19(1) GWB for inadequate data processing* (Feb. 6, 2019), B6-22/16 https://www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Fallberichte/Missbrauchsaufsicht/2019/B6-22-16.pdf?__blob=publicationFile&v=3 (last visited Mar. 12, 2019).

⁶³ Competition Policy International, *France: Competition body may open antitrust probe on online advertising market*, (Mar. 6, 2018) <https://www.competitionpolicyinternational.com/france-competition-body-may-open-antitrust-probe-on-online-advertising-market/> (last visited Dec. 5, 2018).

added “*What is clear is the overwhelmingly dominant position of Google and Facebook*”, evidencing the FCA’s tendency to probe Google and Facebook in the future.⁶⁴

C. Innovation Effects – A New Theory of Harm?

The Commission has been giving renewed attention to the subject of innovation with its recent adoption of a broader approach to this crucial issue. The Commission’s approach is noteworthy as it is more expansive in taking into account innovation concerns in a given industry as a whole and more speculative in its scrutiny of very early stage pipeline products. The evolution of the Commission’s theory of potential harm into a far-reaching and more interventionist approach was first exhibited in its *Dow/DuPont* decision. Accordingly, the Commission’s findings of potential “innovation harm” in that case related to both (i) earlier stage pipeline products with respect to which the parties’ existing R&D activities overlapped, and (ii) overall innovation in the crop-protection industry.⁶⁵ Eventually, the Commission decided to approve the merger between Dow and DuPont, on the condition that major parts of DuPont’s global pesticide business, including its global R&D organization, would be divested.

In addition to its assessment in *Dow/DuPont*, there are other signs that innovation has clearly been high on the Commission’s agenda lately, as such it has also been a major point of discussion in a more recent decision concerning the *Bayer/Monsanto* transaction. In its review of the proposed acquisition, the Commission essentially determined, once again, that a potential reduction in post-merger R&D efforts (including lowered expenditures) would be likely to occur.⁶⁶ The Commission once again reiterated its position that a merger between two of only a few important rival innovators is likely to lead to a reduction in innovation competition, due to the fact that (i) individual product markets were contestable on the basis of innovation, (ii) given the strong nature of intellectual property rights (“*IPRs*”) in the crop protection, seeds and traits industries, the original innovator could be expected to reap the benefits from its innovation by preventing rivals from imitating the IPRs, (iii) innovation was mostly based on product

⁶⁴ *Ibid.*

⁶⁵ See Case M.7932 – *Dow/DuPont* (Mar. 27, 2017), http://ec.europa.eu/competition/mergers/cases/decisions/m7932_13668_3.pdf (last visited Nov. 27, 2018).

⁶⁶ Nicolas Petit, *Innovation Competition, Unilateral Effects and Merger Control Policy* (Jan. 29, 2018), 1, <https://ssrn.com/abstract=3113077> (last visited Nov. 27, 2018).

innovation; (iv) no arguments related to efficiencies had been filed; (v) the fear of cannibalization of own existing products was a disincentive to innovate.⁶⁷ Nevertheless, the Commission decided to approve the acquisition of Monsanto by Bayer, but the approval was conditional on the implementation of an extensive remedy package that would address the parties' overlapping activities in the markets for seeds, pesticides and digital agriculture through divestiture. The Commission finally concluded that the divestment package would ensure that the companies would continue to innovate to the benefit of European farmers and consumers.⁶⁸ In order to compare how the *Bayer/Monsanto* transaction was handled by competition authorities in different jurisdictions, it is worth examining the DoJ's approach, which applied a deeper scrutiny to the proposed transaction in this particular case. Specifically, the DoJ argued that the proposed transaction would (i) eliminate present and future competition between Bayer and Monsanto, (ii) diminish innovation, (iii) raise prices for farmers and other purchasers, and (iv) decrease quality, service, and choice for farmers and other purchasers.⁶⁹ Therefore, the DoJ required an agreed-upon divestiture package, which incorporated thorough steps that would ensure the elimination of key competition concerns. As such, for instance the DoJ required a divestiture of an entire factory, although only half of the products that were produced in that factory were part of the divested business.⁷⁰ Given the lengthy assessment period that resulted with the approval of the DoJ on May 29, 2018 (which lasted approx. two months longer than the Commission's review) and comprehensive remedies required by the DoJ amounting to USD 9 billion (which is approximately USD 2 billion more than the value of divestitures required by the Commission), it can be reasonably concluded that the American antitrust regime was stricter and more demanding in this case on the parties as opposed to its European counterparts.

IV. How Are Competition Authorities in Developing Countries Reacting to the Emergence of Dynamic Concepts? — A Case Study of Turkey

⁶⁷ See *Case M. 8084 – Bayer/Monsanto* (Mar. 21, 2018), para. 75 and 76, http://ec.europa.eu/competition/mergers/cases/decisions/m8084_13335_3.pdf (last visited Mar. 8, 2019)

⁶⁸ European Commission - Press Release, *Mergers: Commission clears Bayer's acquisition of Monsanto, subject to conditions* (Mar. 21, 2018), http://europa.eu/rapid/press-release_IP-18-2282_en.htm (last visited Nov. 27, 2018).

⁶⁹ Complaint, *U.S. v. Bayer AG and Monsanto Company*, para. 65, <https://www.justice.gov/atr/case-document/file/1066656/download> (last visited Dec. 7, 2018).

⁷⁰ Leah Nylen, *DOJ took extra care to ensure Bayer-Monsanto divestitures won't fail, official says*, MLex Market Insight, (June 14, 2018), <https://mlexmarketinsight.com/insights-center/editors-picks/mergers/north-america/doj-took-extra-care-to-ensure-bayer-monsanto-divestitures-wont-fail-official-says> (last visited Dec. 5, 2018).

As an emerging country dealing with various economic challenges of its own, and simultaneously aiming to keep up with the digital age and its necessities, Turkey has adopted certain tailor-made economic agendas and policy choices in order to address its developmental challenges. Indeed, in its 10th Development Plan (2014-2018),⁷¹ the Turkish government has confidently included the goal of increasing innovation capacities and transforming into “knowledge economies”. These goals were listed as agenda priorities within Turkey’s Science and Innovation enforcement policies, as well as a part of its industrial development and other regional policies, in order to realize the ultimate goal of escaping the middle-income trap⁷² and moving forward with the country’s ambitious growth strategies.⁷³

In this regard, it can be seen that the Turkish government has recognized the importance of increasing investments in R&D and innovation activities with a focus on the private sector.⁷⁴ The government has prioritized such investments in an effort to bolster Turkey’s competitiveness in the global information-based manufacturing sector and to enable the structural transformation of high-value-added, technology-driven production in Turkey. With that said, it should be noted here that, Turkey’s innovation performance may not reflect these goals and strategies. Indeed, according to the GII 2018, Turkey was ranked 50th among 126 countries in innovation in 2018, scoring below its rankings in the previous two years (43rd in 2017 and 42nd in 2016) and has fallen out of the list of the top-10 countries with the highest

⁷¹ The 10th Development Plan was approved by the Turkish Grand National Assembly (Decision No. 1041, dated July 2, 2013) and published in the *Official Gazette* No.28699 on July 6, 2013.

⁷² The notion of “middle-income trap” has been widely discussed among economists. Although there are opposing views as to even whether it exists, for the purposes of this paper, I will avoid getting into the debate on whether there really is a so-called middle-income trap (See generally Greg Larson, Norman Loayza, Michael Woolcock, *The Middle-Income Trap: Myth or Reality?*, *Research & Policy Briefs; no. 1. Washington, D.C. : World Bank Group*, <http://documents.worldbank.org/curated/en/965511468194956837/The-middle-income-trap-myth-or-reality> (last visited Dec. 7, 2018)) For the purposes of this paper, the notion of “middle-income trap” shall refer to the income levels that have been attained for a long time by countries that have passed the low income levels and made progress with regards to their economy, but could not reach the socioeconomic levels of the high income countries and rather get stuck at middle-income stage.(Gökhan Yılmaz, *Turkish Middle Income Trap and Less Skilled Human Capital*, Turkish Central Bank Working Paper no:14/30, September 2014, 2 and Ayşe Öztürk, *Examining the economic growth and the middle-income trap from the perspective of the middle class*, 25 *International Business Review* 3, 726–738, 729 (2016)).

⁷³ For the sake of completeness, it should be mentioned that the Turkish government has yet to announce its 11th Development Plan, though the preparation for the 11th Development Plan has begun with the publication of Circular No. 2017/16, which was published in the Official Gazette No. 30138 on July 29, 2017, by the Prime Minister’s Office. See 10th Development Plan, <http://www.sbb.gov.tr/wp-content/uploads/2018/11/Onuncu-Kalk%C4%B1nma-Plan%C4%B1-2014-2018.pdf> (last visited Nov. 26, 2018).

⁷⁴ *Id.*, at 86, para. 626.

innovation efficiency ratios⁷⁵ (*i.e.*, combining certain levels of innovation inputs with more robust output results). Bearing in mind that Turkey’s deteriorating performance in the “regulatory quality” and “rule of law” indexes⁷⁶ were found to be among the factors affecting the decline in Turkey’s overall performance in innovation, we can conclude that improving the quality of Turkey’s competition enforcement policies may lead to positive outcomes with regard to increasing overall productivity through advanced innovations and technological enhancements.⁷⁷

With this notion in mind, I will review the Turkish Competition Authority’s (“*TCA*”) enforcement trends with regards to dynamic concepts (such as technology and innovation), and provide an overview of selected recent decisions of the Turkish Competition Board (“*TCB*”) concerning online markets, multi-sided platforms and technology, as well as touching upon the *TCB*’s approach to innovation efficiencies within the context of merger control review.

A. Enforcement Trends in Turkey

Recent competition enforcement events in Turkey indicate that the *TCB* closely follows the enforcement and policy trends of the EU. This is mostly due to the fact that, as a result of Turkey’s accession negotiations with the EU, Turkish competition law is now closely modeled after (and akin to) the EU competition law regime. Accordingly, the Law No. 4054 on the Protection of Competition (“*Law No. 4054*”) and secondary legislations, as well as the guidelines published by the *TCA*, echo the legal framework that has been implemented in the EU. Therefore, the *TCB* frequently monitors and takes into account how the competition legislation is interpreted and applied by the Commission.⁷⁸ We observe that this trend still persists strongly to this day, as the *TCB*’s policing efforts with respect to big players in digital

⁷⁵ GII 2018, *supra* note 30 at 30.

⁷⁶ Turkey ranked 54th in “regulatory quality” and 59th in “rule of law” in GII 2016, whereas it ranked 58th in regulatory quality and 62nd in rule of law in 2017, and 60th in regulatory quality and 71st in rule of law in 2018. It is apparent that Turkey’s performance in both indexes has been gradually worsening for the past three years.

⁷⁷ This would also be in line with the findings of another study (Global Competitiveness Report 2018), where Turkey’s innovation performance was found to be good, with strong research institutions and a good publication record, though it was bottlenecked by barriers to entrepreneurship and market functioning. (*See* World Economic Forum, *supra* note 32.)

⁷⁸ This has also been upheld by the administrative courts in Turkey (for instance, *see* the Council of State decision (10th Chamber) 2001/1441 E.N., 2003/4468 K.N).

and online markets mirror the Commission's ongoing competition enforcement efforts, which themselves reflect the policy goals and initiatives encompassed by the Digital Single Market.⁷⁹

Indeed, recent investigations launched and concluded by the TCB, as well as its merger analyses, demonstrate the enforcement agency's willingness to delve more into dynamic competition law discussions and concerns, such as (i) policing abuse of dominance instances and defining relevant markets in the context of online businesses, (ii) evaluating multi-sided platforms, as well as (iii) assessing technology and innovation issues. In this regard, one can view *Sahibinden.com* decision and Google investigations (namely, the *Google Android*⁸⁰, the *Google Shopping* investigation⁸¹, *Google Search & AdWords* investigation⁸² and *Google Local Search* investigation⁸³) launched by the TCB as the foreshadowing enforcement steps taken toward regulating digital and online markets in Turkey.

(i) *Google Android* decision and On-going Google Investigations

Since the *Google Shopping*, *Google Search & AdWords* and *Google Local Search* investigations are still in their early phases (the first probe was launched in July 2018 while the second in December 2018 and the latter in February 2019), we are yet to see how the TCB's analysis has matured. With that said, the TCB's *Google Android* decision⁸⁴ is a useful example, revealing, to an extent, the TCB's assessment of online platforms. Perhaps the most prominent feature of the TCB's analysis is the TCB's focus on the multi-sided characteristics of online platforms. Indeed, the TCB particularly noted that while Google gained scale advantages

⁷⁹ The Digital Single Market strategy was adopted on May 6, 2015, and is one of the European Commission's 10 political priorities. It is made up of 3 policy pillars: (i) improving access to digital goods and services, (ii) an environment where digital networks and services can prosper, and (iii) digital as a driver for growth. See Eurostat, <https://ec.europa.eu/eurostat/cache/infographs/ict/bloc-4.html> (last visited Dec. 3, 2018).

⁸⁰ This investigation has been concluded by the TCB with its decision dated September 19, 2018, and no. 18-33/555-273. With its *Google Android* decision, the TCB imposed a fine of 93 million Turkish lira (approx. USD 14.7 million converted at the exchange rate USD 1= TL 6.31 in accordance with the applicable Turkish Central Bank average rate on the decision date (i.e., Sept. 19, 2018)) on Google for allegedly abusing its dominant position in the market for licensable mobile operating systems and required a set of remedies to be carried out by Google (namely, changing its app distribution agreements with manufacturers of mobile phones sold in Turkey and allowing the pre-installation of rival applications). See Matt Richards, *Google hit by Android fine in Turkey*, Global Competition Review (Sept. 21, 2018), <https://globalcompetitionreview.com/article/1174654/google-hit-by-android-fine-in-turkey> (last visited Nov. 26, 2018).

⁸¹ This probe has been launched with the decision dated July 18, 2018 and no. 18-23/396-M.

⁸² This probe has been launched with the decision dated Dec. 13, 2018 and no. 18-47/732-M.

⁸³ This probe has been launched with the decision dated Feb. 21, 2019 and no. 19-08/94-M.

⁸⁴ TCB's *Google Android* decision (Sep. 19, 2018, 18-33/555-273)

through distributing Android operating system and mobile applications to end users free of charge, and therefore gained a competitive advantage through economies of scale, Google allegedly leveraged those economies of scale in a different part of the market, namely with regards to its advertising services.

In its reasoned decision on *Google Android*, the TCB initially analyzed the services that are offered by Google and accordingly defined the relevant product markets as (i) internet search services, (ii) provision of internet search services through mobile devices, (iii) mobile online advertising services, (iv) licensable mobile operating systems, (v) mobile internet browsers market, and (vi) separate relevant markets for each of the functions performed by the applications that are included in the Google Mobile Services Suite. The accuracy of these market definitions is subject to another debate. As for its assessment of dominance, the TCB primarily analyzed the Google's market share in "licensable mobile operating systems market" and in the mobile provision of "internet search services market (as these markets involve the alleged tying and tied products), and accordingly found Google has significant market shares in both markets. More importantly, TCB also found that Google's alleged dominant position in the tying product market (licensable mobile operating systems market) was allegedly reinforced by the indirect network effects, due to the multi-sided nature of app stores. It further added that while these network effects provide a competitive advantage during the product development stage, they create strong entry barriers for competitors as they reach a critical threshold.

Broadly speaking, it is fair to say that TCB's approach to Google has been influenced by the Commission, in particular on certain evaluations of the Commission on Google's practices that have been found to deny rival search engines the possibility to compete on the merit and to prevent the development of Android forks, which could have provided a platform for rival search engines.⁸⁵

(ii) *Sahibinden.com* decision

The TCA's *Sahibinden.com* investigation,⁸⁶ whereby the TCB concluded that *Sahibinden.com* had abused its dominant position in Turkey by way of excessive pricing in the markets for

⁸⁵ European Commission Press Release, *supra* note 42

⁸⁶ TCB's *Sahibinden.com* decision (Oct. 1, 2018, 18-36/584-285).

online platform services for real estate sales/rentals, and vehicle sales, can be considered as yet another effort by the TCB to put its toe in the water with respect to online markets. This decision constitutes a landmark as it not only provides the TCB's views on multisided platform services markets but also illustrates how the TCB assesses dominance in online platform services. With regards to market definition, the TCB took into consideration Evans and Schmalensee's⁸⁷ definition of multi-sided platform services and found that it would take into account the behavior of the two sides of the market (i.e., customer groups). The TCB took into account *Sahibinden.com*'s behavior in its supply-side behavior analysis and the reciprocating relation of the two sides of the market (real estate offices/auto galleries and final consumers) with regards to its analysis of demand side substitutability. Finally, the TCB concluded that it would not broaden its understanding of the relevant product market definition and indeed excluded the offline markets, as it did not find offline services substitutable to the online platform services rendered by *Sahibinden.com*. The TCB looked into the players' market shares by taking into account (i) the number of web-site visits, (ii) the number of commercial members and (iii) the revenue generated from these commercial members, and it also reviewed changes on these parameters based on the players' pricing variances. Accordingly, the TCB rendered that *Sahibinden.com* was in a position to determine the prices without suffering any costs. With regards to market dynamics, the TCB found that the relevant markets in Turkey are expanding and there are various rivals in the relevant markets (both entrenched local undertakings and global new entrants (such as Facebook Marketplace and Letgo)). That being said, the TCB concluded that the current competitive landscape of the relevant markets (in particular, (i) *Sahibinden.com*'s market power, (ii) lack of sufficient competitive pressure and (iii) entry barriers (namely network effects and related sunk costs comprised mostly of advertisement and promotion costs as well as the multi-homing costs)) indicated that *Sahibinden.com* held dominant position in the markets for online platform services for real estate sales/rentals and vehicle sales.⁸⁸

⁸⁷ Namely in David S. Evans & Richard Schmalensee, *The Antitrust Analysis of Multi-Sided Platform Business*, (Nat'l Bureau of Econ. Research, Working Paper No. 18783, 2013).

⁸⁸ As a result, the TCB imposed a monetary fine on *Sahibinden.com* amounting to TL 10.7 million (approx. USD 1.8 million, converted at the exchange rate USD 1= TL 5.97 in accordance with the applicable Turkish Central Bank average rate on the decision date (i.e., Oct. 1, 2018)).

(iii) TCB's Merger Decisions Involving Online Markets and Innovation

With respect to transformation of marketplaces, consumers have attained the ability to purchase products through online channels in recent decades (as a result of various technological developments and the growth of internet use), and therefore, e-commerce has rapidly emerged as a dominant phenomenon of the digital age. Consequently, with the aim of better understanding the functioning and dynamics of online markets, the Commission has undertaken the sector inquiry on e-commerce in 2017,⁸⁹ which has surely contributed to the TCB's understanding and perspective regarding online markets and online sales channels. Indeed, the TCB's *Turkuvaz/D&R*⁹⁰ and *Alibaba/DSM* (also widely known as "Trendyol")⁹¹ decisions, which delve into the issues surrounding the growing e-commerce sector in Turkey, affirm and acknowledge the findings of the Commission's e-commerce sector inquiry, as well as the decisional practice of several European jurisdictions.⁹² In this regard, the TCB took into account (in the foregoing decisions) the fact that the ability of consumers to compare prices online has increased with the rise of e-commerce, which has boosted price competition in terms of both online and offline sales and ultimately, these changes have affected competition on parameters other than price, and therefore, contributed to a dynamic evaluation of online sales in defining the relevant product market.⁹³

That being said, there are also certain issues that have not been evaluated in detail by the TCB in its reasoned decisions, despite the enforcement trends in the EU and the United States. For instance, with regard to the issue of innovation efficiencies, the TCB's decisional practice does not include many instances in which these types of efficiencies were comprehensively evaluated in the context of merger analyses,⁹⁴ even though the Commission has already had several chances to analyze innovation efficiencies and innovation theory of harm at length (most

⁸⁹ See European Commission, *Report from the Commission to the Council and the European Parliament, Final Report on the E-commerce Sector Inquiry* (2017), http://ec.europa.eu/competition/antitrust/sector_inquiry_final_report_en.pdf (last visited Nov. 26, 2018).

⁹⁰ TCB's *Turkuvaz/D&R* decision (May 29, 2018, 18-16/293-146).

⁹¹ TCB's *Alibaba/Trendyol* decision (July 18, 2018, 18-23/398-191).

⁹² For instance, see FCA's *Fnac/Darty* decision (July 27, 2016), <http://www.autoritedelaconurrence.fr/pdf/avis/16DCC111VNC.pdf> (last visited Nov. 27, 2018).

⁹³ See also the TCB's *Booking.com* (Jan. 5, 2017, 17-01/12-4) and *Yemeksepeti* (June 9, 2016, 16-20/347-156) decisions.

⁹⁴ It is worth bearing in mind that the reasoned decisions of the TCB on mergers generally tend to comprise merely 2-5 pages; therefore, our review of the TCB's approach to innovation in merger analyses is constrained by the limited explanations put forth in the brief texts of these decisions.

recently in the *Dow/DuPont*⁹⁵ and *Bayer/Monsanto* cases.)⁹⁶ While the TCB's reasoned decisions on *Dow/DuPont*⁹⁷ and *Bayer/Monsanto*⁹⁸ do not indicate whether the TCB took the innovation effects into account or whether the parties even raised innovation efficiencies as a defense, we can confidently conclude that there is a clear need for the introduction of more sophisticated, innovation-based discussions to the Turkish competition law regime. This is due to the fact that, for instance, while the Commission has relied heavily on stochastic models and economic theory in putting forward its theory of harm to innovation (as well as providing the rationale behind its rejection of the innovation efficiency claims) in its thorough and voluminous overview of the *Dow/DuPont* merger, the TCB has yet to present a detailed evaluation or assessment of its views on the theories of harm and on innovation efficiencies.⁹⁹

In light of the foregoing illustrative cases from Turkey, one can reasonably conclude that, although the TCB has taken certain steps toward evaluating technology and digital markets in its recent decisions, its enforcement efforts so far may be deemed as merely paying lip service to innovation considerations, and seem to constitute perverse and counterproductive antitrust enforcement actions in the technology and online markets.

V. Conclusion

Innovation has been pivotal in addressing urgent developmental challenges around the world,¹⁰⁰ and therefore represents a substantial advantage that can be used by emerging economies to escape the middle-income trap¹⁰¹ which can emerge as a substandard growth performance and

⁹⁵ See Case M.7932 – *Dow/DuPont*, para. 3297, http://ec.europa.eu/competition/mergers/cases/decisions/m7932_13668_3.pdf (last visited Nov. 27, 2018).

⁹⁶ European Commission Press Release, *supra* note 68.

⁹⁷ The TCB's *Dow/DuPont* decision (June 1, 2016; 16-19/310-139).

⁹⁸ The TCB's *Bayer/Monsanto* decision (May 8, 2018; 18-14/261-126).

⁹⁹ For a detailed analysis, see Gönenç Gürkaynak & Selvi Naz Topaloğlu, *Turkey: Innovation based analysis of mergers*, CONCURENCES REVIEW N° 1- 2019, Art. N° 88891 (2019).

¹⁰⁰ OECD, *Innovation for Development: A Discussion of the Issues and an Overview of Work of the OECD Directorate for Science, Technology and Industry*, 2012, 4, <http://www.oecd.org/innovation/inno/50586251.pdf> (last visited Nov. 26, 2018).

¹⁰¹ John Mathews & Keun Lee, *How emerging economies can take advantage of the Fourth Industrial Revolution*, World Economic Forum (Jan. 11, 2018), <https://www.weforum.org/agenda/2018/01/the-4th-industrial-revolution-is-a-window-of-opportunity-for-emerging-economies-to-advance-by-leapfrogging/> (last visited Nov. 26, 2018). See also Öztürk *supra* note 72.

unmet development potential.¹⁰² As we are surrounded by the wave of novel innovations that have been created in the so-called Fourth Industrial Revolution, which can be deemed as the “*new techno-economic paradigm*,”¹⁰³ emerging economies (such as Turkey) could take advantage of this window of opportunity to realize their innovation capabilities, by instituting a series of public policies and economic strategies that are targeted at sustainable development through innovation. In this vein, competition policies that are targeted at technology, innovation and digital markets can be considered among the policy tools that can be usefully employed by the governments of emerging countries.

Competition enforcement regimes in dynamic fields (such as technology and digital markets) can take different forms and shapes. In this context, it is important to first note that the competition authorities in charge of regulating the markets in which most technological advances and innovations originate (including agencies such as the DoJ, the Bundeskartellamt, the U.K. Competition and Markets Authority, and the Commission) have taken it upon themselves to protect technological/innovation competition and to cultivate the incentives of companies to innovate. For instance, the Commission has recently demonstrated its growing eagerness to review high-profile, multi-jurisdictional transactions (such as the *Dow/DuPont* and *Bayer/Monsanto* mergers) from an innovation perspective. This is also clearly the case for the DoJ’s Antitrust Division. As discussed earlier, both of these agencies have taken into consideration and carefully evaluated how innovation would be affected as a result of these deals. Although these competition enforcement authorities were lacking “good presumptions”¹⁰⁴ that would assist them in their analyses and help them to measure innovation, they considered several other indicators, such as (i) R&D expenditures, (ii) strength of patent

¹⁰² According to Gill and Kharas (who have coined the term “middle-income trap in 2007), the notion middle-income trap refers to “*economies that were ‘squeezed between the low-wage poor-country competitors that dominate in mature industries and the rich-country innovators that dominate in industries undergoing rapid technological change’*” (Indermit Gill & Homi Kharas et. Al, *An East Asian Renaissance: Ideas for Economic Growth*, World Bank, Washington, DC (2007) as cited in Indermit Gill & Homi Kharas, *The middle-income trap turns ten*, World Bank Policy Research working paper no. WPS 7403, Washington, D.C., <http://documents.worldbank.org/curated/en/291521468179640202/The-middle-income-trap-turns-ten> (last visited Dec. 4, 2018)). Gill and Kharas also argue that, their definition of middle-income trap, focuses on policy and institutional change and refers to “and “*a trap of policy misdiagnosis when countries failed to match their growth strategies with prevailing structural characteristics of their economies*” (See Gill & Kharas (2015), 7.)

¹⁰³ Mathews & Lee, *supra* note 101.

¹⁰⁴ Charles McConnell, *Innovation analysis lacks reliable presumptions, says US DOJ deputy*, Global Competition Review (June 7, 2018), <https://globalcompetitionreview.com/article/1170347/innovation-analysis-lacks-reliable-presumptions-says-us-doj-deputy> (last visited Nov. 26, 2018).

portfolios, and (iii) presence of competitors at different stages of product development and innovation,¹⁰⁵ as well as referring to and incorporating fresh concepts such as “innovation spaces” into their assessments. This is merely one illustrative example of how these sophisticated agencies seek to preserve the competitive landscape in technology-originating jurisdictions, and how their decisions shape the stories of data- and technology-driven economies and influence the future path of advanced markets.

Processing, internalizing and reflecting these antitrust enforcement trends may prove to be a difficult task for the competition authorities in emerging economies, which have established their enforcement regimes in dealing with more traditional markets (*e.g.*, cement and other raw materials), and relied on static efficiencies, such as distributive efficiencies, in their past assessments. This difficulty may stem from the fact that, in most cases, they are not operating in the technology-originating jurisdictions¹⁰⁶ or from the fact that they do not employ the dynamic economic analysis tools that are required for such evaluations. For instance, with regard to the TCB, we are unable to determine the significance attributed to, if any, dynamic efficiencies (such as innovation efficiencies) in its merger control analyses from the texts of its reasoned decisions. However, we cannot be certain whether the TCB takes dynamic efficiencies into consideration in its assessments and simply finds it unnecessary to include its analysis of these issues in its brief reasoned decisions,¹⁰⁷ or whether the TCB indeed (i) fails to employ any economic analysis tools that take into account dynamic concepts such as R&D expenditures, strength of patent portfolios or new concepts such as “innovation spaces,” or (ii) falls short in understanding the unique dynamics of digital and/or online markets.¹⁰⁸ That being said, on the bright side, the TCB’s evaluations with regards to online platforms indicate its willingness to adapt and understand the new landscape forged by the rise of innovation and

¹⁰⁵ *Ibid.*

¹⁰⁶ However, this does not mean that all emerging markets suffer from being “simply low-value-added producers.” In fact, according to the OECD, major emerging market economies are considered to be among the creators and traders of innovative products. *See* OECD, *Innovation and Growth: Rationale for an Innovation Strategy* (2007), 8, <http://www.oecd.org/sti/inno/39374789.pdf> (last visited Nov. 26, 2018).

¹⁰⁷ For a detailed analysis on dynamic efficiencies in merger control review in Turkey *see*, Gönenç Gürkaynak, Çağlagül Koz & Selvi Naz Topaloğlu, *Turkey: Dynamic efficiency Considerations in merger control analyses*, CONCURRENCES REVIEW N° 3- 2018, Art. N° 87102 (2018).

¹⁰⁸ The latter has also been acknowledged by the TCA in its Strategic Plan for 2019-2023, as the TCA admitted that it would need to establish technical infrastructure in order to be more proactive and respond to developments in digital economy. (TCA’s Strategic Plan for 2019-2023, 39, <https://www.rekabet.gov.tr/Dosya/geneldosya/1-rk-stratejik-plani-pdf> (last visited Mar. 18, 2019))

technology. Moreover it is positive to see that the TCA underlined (i) the importance of adapting “competition for the market” and “sustainability of/sustainable innovation” principles as guidelines for developing new policies with regards to innovation and (ii) the necessity of renovation of competition authorities in order to respond to technological developments (and new concepts such as big data, algorithms etc.)¹⁰⁹

In this regard, extrapolating from Turkey’s example, we can logically conclude that identifying obstacles and capacity building in order to undertake the necessary economic, legal, and possibly political analyses in dynamic market settings further down the road can be important tools for competition authorities operating in emerging economies. Indeed, merely undertaking the necessary market analyses, publishing the results and identifying/disclosing deficiencies in market competition can usefully serve the ultimate goal of unleashing rivalries and fostering competition, even before any resources have been devoted to competition law enforcement in online and digital markets.¹¹⁰

With these considerations in mind, rather than implementing draconian enforcement measures and following the enforcement trends from more entrenched agencies, competition authorities in emerging markets (such as the TCB) should first endeavor to fully understand the concepts and technologies that they are dealing with in the digital world. Only then can they correctly identify and address the fundamental competition law concerns in their jurisdictions, and thereby contribute to the economic development goals of their countries.

¹⁰⁹ *Ibid.* 50

¹¹⁰ Umut Aydın & Tim Büthe, *Competition Law & Policy in Developing Countries: Explaining Variations in Outcomes; Exploring Possibilities and Limits*, 79 *Law and Contemporary Problems* 1-36, 9 (2016), <https://scholarship.law.duke.edu/lcp/vol79/iss4/1> (last visited Nov. 26, 2018).

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