



EUROPEAN MASTER IN LAW & ECONOMICS

Dominant Platforms as (Quasi)-Regulators

An Economic Analysis of Competition on Platforms

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Abstract

Platform businesses have been pivotal in the rise of the digital economy. Amazon is one example of a platform taking on the role of a quasi-regulator; an entity that is able to determine the terms of interaction on the platform. This intermediary position entails the danger of anti-competitive behaviour by the dominant platform. Notable examples of anti-competitive behaviour include self-preferencing and the leveraging of market power into adjacent markets. This paper analyses legal and economic issues of competition on dominant platforms, using Amazon as a case study. The paper examines the role of dominant platforms as regulators of their own marketplace under the existing legal framework in a positive analysis and offers policy recommendations to adapt competition law to the challenges of the digital economy.

Authorship Declaration

I hereby declare and confirm that this thesis is entirely the result of my own work except where otherwise indicated. I acknowledge the supervision and guidance I have received from Frédéric Marty. This thesis is not used as part of other examination and has not yet been published.

Westerstede, Germany, July 31, 2020

A handwritten signature in blue ink, appearing to read 'G. Ripken', is centered on a light blue rectangular background.

Gesche Ripken

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Introduction

The benefits of the digital economy are vast. We have more products, more choices, fewer borders, lower prices, and more opportunities for small companies.

One contributor to the rise of the digital economy are platform businesses. In fact, they play a pivotal role: They provide meeting places in a landscape without physical limitations. The numbers underline this impression. Today, more than one million EU enterprises trade through online platforms to reach their customers (CRÉMER, et al., 2019) and seven of the ten biggest companies worldwide use online platforms as their central business model (HOFFER, et al., 2019).

However, platform businesses are not only contributors to the rise of the digital economy but also its biggest beneficiaries. Over the years, platform power has increased immensely. This power comprises not only mere market dominance but also control over the participants on their platforms. Even the European Commission¹ has conceded that certain online platforms have acquired a “*systemic role*” (European Commission, 2020) in the digital economy. Competition authorities are starting to scrutinise big market players², especially the GAFAM-companies³, but face obstacles in keeping up with the fast-paced technological changes in this area.

The online retailer Amazon is one of the GAFAM-companies. It operates the Amazon Marketplace, the world’s largest e-commerce platform. According to statistics, the Amazon Marketplace “*is so large it would rank as the 50th largest economy in the*

¹ Hereinafter referred to as “**Commission**”.

² The Commission has conducted procedures against Google (cf. *Google Search (Shopping)* and *Google Android*). Currently, it investigates Amazon, while in Germany the Federal Court of Justice recently delivered a judgement in a proceeding by the German Federal Cartel Office against Facebook (cf. <https://www-ft-com.eur.idm.oclc.org/content/a169921d-4744-4c16-8ae8-028d52bb655c>).

³ The term GAFAM describes the Internet’s most powerful global players: Google, Apple, Facebook, Amazon, Microsoft.

world if it were its own country” (Marketplace Pulse, 2019). Consequently, it can come as no surprise that critics compare Amazon to Rockefeller’s Standard Oil (BUDZINSKI, et al., 2015), the company that was subject to the first finding of an illegal monopoly under modern antitrust law. Indeed, similar to Standard Oil at the beginning of the 20th century, Amazon has developed into an ecosystem.

And similar to their US counterparts in 1906, EU competition authorities are starting to take action. Following several national authorities, the Commission opened an inquiry into Amazon’s dual role as a marketplace for third-party sellers and as a retailer.⁴ The investigation falls amid a debate on the general conduct concerning this new type of company, a platform that is at the same time market participant and infrastructure provider; or as Commissioner Vestager puts it: “[...] *like a spider in the World Wide Web*”.⁵

This paper contributes to the debate by questioning how competition authorities can and should react to the new, systemic role of platforms as intermediaries with extensive market power. A case study on Amazon exemplifies the theoretical concepts. There are two limitations to the scope of research: First, Amazon’s business conduct as a retailer has already been the subject of a thorough analysis in Lina Khan’s note “*Amazon’s Antitrust Paradox*” (2017), whereas this paper focuses on practices relating to the Amazon Marketplace, i.e. Amazon as a platform business. Second, the paper excludes a

⁴ “Antitrust: Commission opens investigation into possible anti-competitive conduct of Amazon”, press release, 17 June 2019, source: https://ec.europa.eu/commission/presscorner/detail/en/IP_19_4291; member states investigating Amazon are Austria (https://www.bwb.gv.at/en/news/detail/news/austrian_federal_competition_authority_initiates_investigation_proceedings_against_amazon/), Germany (Bundeskartellamt, 2019), and Italy (<https://en.agcm.it/en/media/press-releases/2019/4/A528>).

⁵ Cf. “Speech by Margarete Vestager at the ASCOLA Annual Conference”, 26 June 2020, source: https://ec.europa.eu/commission/commissioners/2019-2024/vestager/announcements/competition-digital-age-changing-enforcement-changing-times_en.

possible redesign of merger analysis from its consideration of policy measures for lack of space.

The paper is structured as follows:

Chapter 1.1 provides background information for the subsequent economic and legal analysis of platforms. Moreover, it introduces Amazon as a company and a business model (**chapter 1.2**). The second chapter focuses on economic theory. The paper analyses the economic implications of intermediary power on the one hand (**chapter 2.1**) and market power on the other hand (**chapter 2.2**). Based on these concepts, the paper identifies potential benefits and threats to competition that arise from the unique position created for platform providers (**chapter 2.3**). In **chapter 3**, the paper conducts a positive analysis regarding the question if the current legal framework is fit to deal with the anti-competitive threats identified in chapter 2. The **fourth chapter** offers a policy perspective. The paper ends with a **conclusion**.

1. The Amazon Marketplace as a (Structuring) Platform

The following chapter first provides an overview of the established characteristics of platforms to understand what makes a platform a platform and focuses on recent developments concerning the critical position of platforms in providing infrastructure to their complementors. Second, this section introduces the Amazon Marketplace⁶ as a business by depicting its structure and business model as well as its distinction from the retailer Amazon.

⁶ Hereinafter referred to as the "**Marketplace**".

1.1 Platform Characteristics

The modern conception of a platform has its origins in traditional marketplaces. The business model ‘marketplace’ emerged in the Middle Ages as a solution to high search costs. The reduction of search and transaction costs as an objective of marketplaces is even more important in the digital sphere (HAUCAP, et al., 2011; COTTER, 2005). But platforms cannot simply be equated with marketplaces. Instead, the term ‘platform’ encompasses any structure that enables the interaction of different groups of agents. A synonymous description is ‘multi-sided markets’ to convey the multitude of agents and interests congregating on the platform (ROCHET, et al., 2003; ROCHET, et al., 2006). Beyond this, characteristics of platforms differ significantly and have caused a lively debate over the precise definition of a platform (HAGIU, et al., 2015; Bundeskartellamt, 2016; KATZ, et al., 2018). But even though scholars have thus far failed to find a universally applicable definition, their contributions have yielded certain core characteristics.

There are four of these core characteristics: A platform (1) brings together multiple user groups (2) to enable interactions between these groups with the relevant groups being (3) reliant on network effects and (4) subject to a particular pricing structure.

The first two characteristics describe the intermediary role of a platform. The intermediary role has two central functions. First, it depicts a platform’s primary task, which is the connection of upstream and downstream markets in a vertical relationship (DUTCH-BROWN, 2017) to reduce transaction costs (COTTER, 2005). Second, it distinguishes between the platform itself and the agents operating on the platform. The platform is neither economically nor legally part of the transaction between the different groups (HAGIU, 2007; HAGIU, et al., 2015; Bundeskartellamt, 2016). It only provides the technical means for both sides to search and find each other, the support of the search

by pre-selecting users that fit the search criteria and potentially offers accompanying services, i.e. the logistics to fulfil a transaction (Bundeskartellamt, 2016).

The third characteristic, the reliance on network effects, is the ‘stand-out’ characteristic of a platform (DUTCH-BROWN, 2017; SCHALLBRUCH, et al., 2019; HAUCAP, et al., 2013). Positive “*cross-platform network effects*” (KATZ, et al., 2018; HAGIU, et al., 2015), a form of indirect network effects, occur when the attractiveness of the platform increases for group members on one side because of the presence of group members on another side (HAGIU, et al., 2015; ARMSTRONG, 2006; CAILLAUD, et al., 2003; ROCHET, et al., 2006; EVANS, et al., 2007).⁷ Indirect network effects form such a significant part of a platform because the platform can internalise these externalities, while the users themselves cannot (Bundeskartellamt, 2016; ROCHET, et al., 2006). Thus, from a purely economic point of view, platforms are efficient in environments where parties are not able to internalise the network effects on their own (ROCHET, et al., 2006; EVANS, 2003).

The fourth characteristic – the pricing structure - is the most disputed one. Under the classic economic definition of platform, ROCHET and TIROLE (2003, 2006) argued that the existence of a special pricing structure with which the platform tries to “*get both sides on board*” (ROCHET, et al., 2006) is the defining element of multi-sided markets.⁸ The pricing structure originates in different types of demand by the relevant groups on a platform. The platform wants to optimise the price elasticity for the various groups and therefore asks a higher price from the group with inelastic demand (ROCHET, et al.,

⁷ As opposed to negative cross-platform network effects occurring when the utility of one user side decreases with the increase of users on the other user side (HAUCAP, et al., 2011). Direct network effects are of less significance in the context of multi-sided markets.

⁸ While nowadays many scholars agree that a special pricing structure as identified by ROCHET & TIROLE (2003, 2006) is neither necessary nor conditional for the constitution of a platform, it is nonetheless a common feature in platforms and will as such be addressed herein. Cf. KATZ & SALLET (2018) for a comprehensive criticism of the pricing structure characteristic.

2003). The group(s) with a rather elastic demand pay a comparably lower price – or even no price at all. Thus, the different groups of a platform often cross-subsidise each other, i.e. the side with the more inelastic demand finances the platform services for itself and at least partly for the other side (ROCHET, et al., 2003; PARKER, et al., 2005; HAUCAP, et al., 2011; VOLMAR, 2019; Stigler Committee on Digital Platforms, 2019).

With the ascend of the digital economy, another characteristic of online platforms, namely their structuring power, is increasingly receiving attention. Online platforms are no longer merely intermediaries in the sense that they facilitate interactions by offering a meeting place for the interested parties. They also serve as infrastructure providers and even create whole (AI-driven) ecosystems. In contrast to the traditional network industries (e.g. electricity, railways, gas), online platforms and other models of the ‘new’ network industries rely on virtual networks and technology rather than a physical infrastructure (GRAEF, 2016). Traditional businesses that rely on interaction and intermediation to transmit their goods and services become dependent on platforms and their infrastructure (GRAEF, 2016; KHAN, 2017). But the dependence also extends to databases, user communities, and whole ecosystems (Autorité de la concurrence, 2020). By creating digital ecosystems, platform providers maintain control over the relationship with their users while maximising their margins (Stigler Committee on Digital Platforms, 2019).

In this context, the French competition authority has developed the definition of a so-called ‘structuring digital platform’. According to this definition, a structuring platform holds a structuring market power and certain third parties (competitors, users, and third-party companies) are dependent on access to its infrastructure (Autorité de la concurrence, 2020). Similar notions surfaced in a legislative proposal by the German Ministry for Economic Affairs that included the definition of an undertaking with “*paramount cross-market significance for competition*” (Bundesministerium für

Wirtschaft und Energie, 2020).⁹ The Digital Competition Expert Panel denotes a “*strategic market status*” (Digital Competition Expert Panel, 2019) to some platform businesses.¹⁰ These definitions consider an undertaking’s market power and any existing vertical ties as well as its importance for third-party access to the market. One of the companies explicitly named as an addressee of the German proposal is the platform provider Amazon.¹¹

In short, the traditional characteristics of platforms are still essential to understand how platforms operate. With the development of digital ecosystems, however, the potentially systemic role of platforms has moved into the focus of public attention, and thus of legislators and competition authorities.

1.2 Introducing the Marketplace

Amazon.com, Inc. was founded as an online book shop in 1994 but over the years gradually expanded into other retail branches. In its basic form, the Marketplace is an e-commerce platform for third-party sellers who can offer their goods in exchange for a fee. However, Amazon itself is also operating on the Marketplace as a retailer.¹²

Hence, the company takes on a dual role, pursuing two lines of business. In the first line of business, its retailing business, Amazon partly procures goods from manufacturers and resells them under its own name via the online shop (Bundeskartellamt, 2016), and partly produces under its private label, so-called “first party selling”.

⁹ Cf. BUDZINSKI, et al. (2020) for an extensive analysis of the proposal.

¹⁰ Cf. similarly the Final Report by the Stigler Committee on Digital Platforms (2019) and the European Commission (2020) [*“systemic role”*].

¹¹ Cf. Press Release by the Federal Ministry for Economic Affairs, 24 January 2020, source: <https://www.bmwi.de/Redaktion/DE/Pressemitteilungen/2020/20200124-altmaier-brauchen-im-digitalen-zeitalter-update-unserer-wettbewerbsregeln.html>.

¹² Amazon.com offered more than three billion products across eleven Marketplaces in October 2017 (source: <https://www.scrapehero.com/how-many-products-does-amazon-sell-worldwide-october-2017/>).

The second line of business is the operation of the Marketplace. Amazon acts as an intermediary that enables direct interaction between the independent sellers operating on the Marketplace and consumers. In contrast to its retail business, Amazon is no longer involved in the transaction between the Marketplace sellers and the consumer, i.e. the purchase contract for the goods is solely concluded between these parties (Bundeskartellamt, 2016), so-called "third party selling". However, Amazon does offer certain accompanying services to the transaction, such as payment processing, shipping, and customer services (Bundeskartellamt, 2016). Hence, in the third-party selling segment, Amazon acts like a 'typical' online platform. A single shop that does not distinguish between Amazon the retailer and Amazon the Marketplace operator combines both segments (Bundeskartellamt, 2016). However, Amazon is by any means not the only platform provider pursuing two lines of business.¹³

As of 2020, Amazon has 16 Marketplaces worldwide (Marketplace Pulse, 2019). In Europe, it operates Marketplaces in France, Germany, Italy, Spain, and the United Kingdom. Amazon offers a single seller account for all European Marketplaces. When a seller operates on any European Marketplace, the goods are automatically offered on the other four European Marketplaces as well.¹⁴

The Marketplace is free to access as a buyer; however, its access as a seller is subject to a fee. The fee consists of a fixed monthly subscription fee of currently 39 EUR¹⁵

¹³ Google (search engine and *inter alia* price comparison service) and Apple (app store and phone manufacturing) are other examples of GAFAM-companies to conduct two lines of business.

¹⁴ Cf. "Sell on Amazon", Amazon Services Europe, source: https://services.amazon.co.uk/services/sell-online/features-and-benefits.html?ref=UK_SOA_home_FBmore.

¹⁵ Cf. exemplary the German Amazon Services Webpage, source: https://services.amazon.de/programme/online-verkaufen/international-verkaufen.html?ld=SEDESOAAdGog_7327771644_80973899939_kwd-297245416734_b_391834533535_c_asret_#.

plus individual transaction commission fees (often about 15%, depending on the product category) (Bundeskartellamt, 2019; Goat Consulting, 2019).

Third-party sellers have the choice between two logistics programs: Fulfilment by Amazon (FBA) or Fulfilment by Merchant (FBM). The FBA program lets Amazon handle fulfilment, returns, and general customer service, in short, all accompanying services to the transaction. A significant advantage for sellers signing up for the FBA program is the Prime designation their products receive from Amazon as well as the option to store products in an Amazon warehouse. Amazon Prime is Amazon's loyalty program. It offers subscribers free and faster delivery of products ordered on Amazon as well as provides them with access to video and music streaming, e-book renting, and other benefits (Amazon.com, Inc., 2018). The number of Prime subscribers surpassed 150 million at the end of 2019. This constitutes a growth of approximately 50 million subscribers in the last two years.¹⁶ KHAN has even argued that Prime has been the “*single biggest driver of [Amazon’s] growth*” (KHAN, 2017). In 2019, more than 85% of the best performing third-party sellers on the US Amazon Marketplace chose the FBA program, on the European Amazon Marketplaces this number was at around 60-70% (Marketplace Pulse, 2019).

Since its introduction in 2000, the Amazon Marketplace has grown significantly. In 2019, Amazon Marketplaces sellers sold 200 billion USD worth of products (Marketplace Pulse, 2019). In 2018, third-party sellers on Amazon accomplished 58% of physical gross merchandise sales as opposed to Amazon's first-party sales (Amazon.com,

¹⁶ “Amazon has surpassed 150 million Prime subscribers globally”, article by Daniel Keyes, 3 February 2020, source: <https://www.businessinsider.de/international/amazon-surpasses-150-million-prime-subscribers-2020-2/?r=US&IR=T>.

Inc., 2018). Jeff Bezos himself is accounting the success of third-party sellers to the two programs Fulfilment by Amazon and Prime (*“In combination, these two programs meaningfully improved the customer experience of buying from independent sellers”*, (Amazon.com, Inc., 2018)).

To sum up, Amazon combines two business models on the Marketplace: First, as an online retailer that buys from producers and sells to consumers, and, second, as an online marketplace provider that intermediates between sellers and buyers (BUDZINSKI, et al., 2015). In this second line of business, programs like FBA and Prime tie the success of buyers and sellers to the Marketplace, earning the company an indispensable status. From an economic perspective, Amazon’s retail business – although not part of the Amazon Marketplace operation – is part of the ‘seller’ user group and thus might contribute to indirect network effects (Bundeskartellamt, 2016).

2. Theoretical Framework: The Intersection of Intermediary Role and Platform

Dominance

This chapter gives an overview of the existing economic literature on intermediaries and platform dominance. The role of an intermediary has different dimensions, which are addressed below. Further, this section presents the factors related to the emergence, decrease, and entrenchment of dominance. From a competition policy point of view, the intertwining of a platform’s intermediary power and a dominant position in the market results in a new type of platform. This new type of platform entails both potential benefits as well as potential threats.

2.1 Economics of Intermediaries

The intermediary position means that platforms as non-state actors can alter the behaviour of others in circumstances where a state has limited capacity to do so (LAIDLAW, 2010). From an economic point of view, an entity that directs the behaviour of individuals and firms to achieve policy objectives is considered a regulator.¹⁷ A regulator is supposed to encourage competition where feasible and address market failures, *inter alia* by minimising information asymmetries. Further, regulators ensure an effective infrastructure system to avoid negative impacts on product pricing levels and product quality (OECD, 2017).

Although the government usually conducts economic regulation, there are several advantages in letting a private entity undertake the role of a regulator. First, private actors are more responsive to changes in technology or circumstances and can thus adapt more quickly (BÜTHE, 2010; TUSIKOV, 2017) whereas state regulation is often subject to more bureaucratic problems. Second, intermediaries are often able to regulate activities more efficiently and more cost-effectively than state authorities (MANN, et al., 2005; LAIDLAW, 2010). For example, e-commerce platforms can handle the fight against counterfeit products more efficiently than state authorities. Private actors and regulatory powers are hence not per se a harmful combination, although they entail the inherent risk of exercising their power according to their own interests.

A platform has powers to regulate but usually lacks the governmental ties to be an actual regulator. Hence, platforms resemble a quasi-regulator. The platform's capacity as a quasi-regulator encompasses two dimensions. One dimension is that of a "gatekeeper", as the platform oversees access to the market. In a second dimension, the

¹⁷ Cf. OECD Glossary of Statistical Terms: Regulation, source: <https://stats.oecd.org/glossary/detail.asp?ID=3295>.

platform determines the conduct on the market, giving it state-like regulating powers in a narrower sense. In this paper, the term “regulator” refers to the second dimension to show its distinction from the gatekeeper dimension.

2.1.1 Gatekeeper: Access to the Market

The platform decides who can access the market. Hence, it acts as a gatekeeper to the market. If a complementor requires access to a particular platform to reach customers, a competitive bottleneck is created (ARMSTRONG, 2006; BOUGETTE, et al., 2019). The complementor becomes dependent on the platform’s infrastructure. The more concentrated the market is, the more the complementor’s dependence increases (BOUGETTE, et al., 2019). The notion of economic dependence is distinct from the concept of dominance, i.e. a complementor can be dependent on a platform even if that platform holds no dominant position (GRAEF, 2019).

Traditionally, economic dependence on gatekeeping platforms expresses itself in the form of fees for access to the market. However, gatekeepers can also keep certain actors out of the market. The incentive for gatekeeping platforms to foreclose a market to complementors is increasing when the complementor is also a competitor. This is the case if the platform provider is offering goods or services on the relevant market itself, i.e. if it is vertically integrated. An example of a vertically integrated company is Amazon with the Marketplace line of business on one side and the online retail line of business on the other side.

2.1.2 (Quasi-)Regulator: Conduct on the Market

Platforms determine the behaviour of all participants on the platform. While the platform takes no part in the transactions and as such does not decide the transaction variables, it still provides a set of rules (usually the Terms of Use) that all user groups of the platform

have to observe. This way, private platform providers govern the behaviour of market participants (SCHMALENSEE, et al., 2007). The position also entails a superior bargaining power of the platform when negotiating with complementors. A superior bargaining position can further result in platforms steering the transactions as such (PODSZUN, 2019). The thus created impact on individuals, firms, and society as a whole reaches beyond pure market power (CRÉMER, et al., 2019). The more users are on the platform, the more rule-setting power these platforms have. This mechanism can lead to state-like powers for the specific platform (CRÉMER, et al., 2019; GRAEF, 2016). An example of these powers is the use of price-parity clauses¹⁸. Amazon was one of the companies using MFN-clauses. MFN-clauses prohibit third-party sellers from pricing their products on other channels lower than they price them on Amazon. Although Amazon eventually dropped the use of MFN-clauses after increasing pressure from competition authorities¹⁹, the example shows how a platform acquires a certain level of pricing power. The German Federal Cartel Office started another proceeding against Amazon's Terms of Use that was closed in July 2019 after Amazon made concessions on the criticised points (Bundeskartellamt, 2019). Another tool to increase Amazon's bargaining power is the loyalty program Amazon Prime. Because of the program's popularity with customers, complementors effectively need access to a Prime designation to be commercially successful (STOLLER, et al., 2020).

Based on this understanding, a platform only acting as a neutral intermediary can fulfil the regulatory objective of ensuring a level playing field. In fact, a (non-vertically

¹⁸ Also called MFN (most-favoured-nation).

¹⁹ Cf. "Amazon silently ends controversial pricing agreements with sellers", article by Makena Kelly, 11 March 2019, source: <https://www.theverge.com/2019/3/11/18260700/amazon-anti-competitive-pricing-agreements-3rd-party-sellers-end>.

integrated) platform profits directly from intense seller competition (BELLEFLAMME, et al., 2018). However, a vertically integrated platform cannot assure the neutral fulfilment of this regulatory role. Instead, the company gains incentives to use its rule-setting power and superior bargaining position to determine the outcome of the competition on the platform in its favour (CRÉMER, et al., 2019; BOUGETTE, et al., 2019).

2.2 Economics of Platform Dominance

EVANS and SCHMALENSSEE (2007) conducted the traditional economic analysis of platform dominance. A starting point is the assumption that a market position is the more dominant, the more concentrated the market is.

The causes of a higher market concentration and thus the emergence of a dominant position are (1) indirect network effects and (2) economies of scale, all other things being equal (Monopolkommission, 2015; SCHMALENSSEE, et al., 2007). Negatively associated with the size of platforms are (3) congestion, (4) platform differentiation, and (5) multi-homing (SCHMALENSSEE, et al., 2007). Hence, in the absence of those ‘negative’ factors, the likelihood of platform dominance increases.

Moreover, data plays a central role in the entrenchment of a dominant position.

2.2.1 Emergence of Dominance: The Positive Factors

Online platforms generate market power first and foremost through network effects (VOLMAR, 2019).

First, network effects make the platform more attractive to users, meaning more users join the platform. Both direct and indirect network effects create a virtuous circle and facilitate concentration tendencies on the market (Monopolkommission, 2015).

Second, network effects are also economies of scale. The more users a platform attracts due to network effects, the more advantages the platform generates in terms of costs (SHAPIRO, et al., 1999; TAMKE, 2018; VOLMAR, 2019). Online platforms have variable costs that are comparatively lower than their fixed costs (BUDZINSKI, et al., 2015; GRAEF, 2016; HAUCAP, et al., 2011) The high fixed costs reflect the substantial investments in server and algorithmic infrastructure. Once the infrastructure is established, additional costs caused by the platform's growth are negligible (TAMKE, 2018; Bundeskartellamt, 2016; Digital Competition Expert Panel, 2019).

Third, markets with strong indirect network effects tend to tip towards the market leader at some point ("tipping") (Bundeskartellamt, 2016; Monopolkommission, 2015; TAMKE, 2018). When a market has tipped towards the market leader, that market leader benefits from a lock-in effect (TAMKE, 2018). Markets with strong network effects and economies of scale are also called winner-takes-all-market because once a dominant position is established it is difficult to near impossible for other market participants to compete with the market leader (Bundeskartellamt, 2016; Monopolkommission, 2015).

Fourth, network effects increase switching costs. Switching costs denote the effort the user has to put in to switch platforms and the disadvantages that arise as a result of the switching (TAMKE, 2018). Here, the general rule is: The stronger the network effects in the established network, the higher the switching costs (Bundeskartellamt, 2016; Monopolkommission, 2015; VOLMAR, 2019; PODSZUN, et al., 2017). Strong network effects hence lead to a certain path dependence for the user (Bundeskartellamt, 2016; Monopolkommission, 2015).

Fifth, network effects result in entry barriers. A new platform usually only has a small user base. Hence it generates only limited network effects. This makes the platform unattractive for new users which in turn prevents the formation of stronger network effects. Therefore, it is difficult to enter a market for a new platform.

2.2.2 Decrease of Dominance: The Negative Factors

Congestion, platform differentiation, and multi-homing can reduce concentration tendencies. Congestion refers to the possibility that the market is overloaded, for instance, because its capacity is limited. This often applies to offline platforms, like shopping malls, where the available room provides a physical limit (HAUCAP, et al., 2011). However, on online platforms, the risk of congestion is relatively low since physical restrictions do not apply - or at least only exist in terms of server capacity (Monopolkommission, 2015). Platform differentiation refers to the possibility for users to differentiate between platforms, i.e. the homogeneity of users and products (HAUCAP, et al., 2011). The more homogeneous users and products of a platform are, the higher the risk of market concentration and tipping (HAUCAP, et al., 2011).

Decisive for the potential reduction of concentration tendencies on online platforms is the risk of multi-homing. The term ‘multi-homing’ refers to the possibility to use several platforms in parallel (ARMSTRONG, 2006; ROCHET, et al., 2003). Multi-homing can only decrease concentration tendencies if it occurs on all sides of the platform. By contrast, one-sided single-homing creates a competitive bottleneck. Then, platforms have the “*monopoly power over providing access to their single-homing customers for the multi-homing side*” (ARMSTRONG, 2006), and the market contains the risk of tipping (Monopolkommission, 2015).

Switching costs are decisive for the possibility of multi-homing on a platform (HAUCAP, et al., 2011). On e-commerce platforms, multi-homing is often easier for consumers because they face low switching costs. Nonetheless, habit-forming effects, a feeling of loyalty towards the platform, and an unwillingness to provide personal data to numerous platforms can cause consumers to single-home (Monopolkommission, 2015; Digital Competition Expert Panel, 2019). Amazon achieves this through the loyalty

program Amazon Prime. The company's product range in combination with the free and fast delivery service of Amazon Prime has led to customers predominantly starting – and ending – their product search on the Marketplace.²⁰ In contrast, switching costs for sellers are considerably high. They occur in the form of a built-up reputation that is difficult to transfer to another platform and the fact that sellers generally prefer as large a platform as possible (Monopolkommission, 2015; HAUCAP, et al., 2011; HAUCAP, et al., 2013). On the Marketplace, the system of user reviews that allows independent sellers to build a reputation on the platform, increases switching costs for sellers. Moreover, the European Marketplaces' business model effectively limits multi-homing because sellers can rarely match the range they achieve on the European Marketplace – reaching all of Amazon's European Marketplaces with a single account.

Consequently, if an e-commerce platform with an already high market concentration manages to limit multi-homing by consumers, it automatically incentivises sellers to also single-home on its platform.

2.2.3 Entrenchment of Dominance: The Role of Data

While data was already crucial for the success of a good or service in traditional markets, it has become a - maybe the - decisive factor in the digital economy (TAMKE, 2018; Digital Competition Expert Panel, 2019). Data can help entrench a platform's dominant market position (KHAN, 2017; Digital Competition Expert Panel, 2019). More specifically, data generates economies of scale comparable to network effects which lead to a similar tendency towards market concentration, so-called data-based effects of scale (VOLMAR, 2019; BUDZINSKI, et al., 2020). The amount of data available to a platform

²⁰ According to the report of the Digital Competition Expert Panel (2019), 59% of 16 to 36-year olds in the UK 'always' or 'often' start their online shopping on Amazon.

operator increases with the number of users joining the platform. With more data, the platform can improve *inter alia* the quality of its products or services, it can exploit new business opportunities and pursue more target-oriented business models (Digital Competition Expert Panel, 2019).²¹ These benefits increase the platform's popularity and, thus, its number of users (VOLMAR, 2019; KÖRBER, 2016). Another – data-based – virtuous circle is created.

Moreover, data may constitute an entry barrier to the market. If a possible market entrant has no access to the data sets available to the dominant platform, it is almost impossible for that market entrant to be competitive in terms of product quality and customer catering (TAMKE, 2018; Digital Competition Expert Panel, 2019). An entry barrier due to lack of access to relevant data is more likely, the more concentrated the market in question already is (TAMKE, 2018).

2.3 Potential Threats and Benefits

The following chapter depicts potential benefits and potential threats arising from the intertwining of intermediary power and dominant position. In this respect, 'potential benefits' should be equated with pro-competitive effects while 'potential threats' refer to the anti-competitive impacts.

On the outset, it must be clarified that neither the fact that a platform has an intermediary function nor a high market concentration per se equates with competition problems. Instead, from an economic perspective, a high market concentration could in fact be the expression of an efficient market structure (Monopolkommission, 2015;

²¹ In this context, AI resources are vital. Algorithms function based on data input (BUDZINSKI, et al., 2020) and are therefore also subject to data-based advantages. At the same time, traditional network effects and AI-driven advantages reinforce each other (IANSITI, et al., 2020).

CAILLAUD, et al., 2003). Due to the existence of network effects, a platform, and hence the underlying market, can often only operate efficiently if it has obtained a certain size (HAUCAP, et al., 2013; CAILLAUD, et al., 2003). Accordingly, one large marketplace, as opposed to multiple smaller marketplaces, means lower search costs for consumers (HAUCAP, et al., 2013).

2.3.1 Potential Benefits

The most significant benefit arising from the intersection of intermediary and market power is a potential enhancement of consumer welfare.

An increased choice of products or services enhances consumer welfare. This is achieved because platforms with large market shares can facilitate the access of small and medium-sized enterprises (SMEs) to the market (CRÉMER, et al., 2019). They merely need to become a user of the relevant platform to gain access to a substantial client group whereas no investment in other infrastructure is necessary. Hence, these groups benefit from lower entry barriers (BEIL, et al., 2014). How comparatively easy it is for independent sellers to access the market via the Marketplace is illustrated by the fact that 1,2 million new third-party sellers joined one of the sixteen Marketplaces worldwide in 2019 – raising the total figure of sellers close to eight million (Marketplace Pulse, 2019).

Other benefits for consumers include increased transparency in the market, the overcoming of trust issues when faced with an online purchase, and the possibility to conduct cross-border trade (Monopolkommission, 2015; BEIL, et al., 2014).

2.3.2 Potential Threats

The source of threats arising from the intersection of a platform's intermediary role and dominant position is the conflict of interest caused by the economic dependence of agents on the platform. The intersection, in this case, unfolds as follows: Complementors are

dependent on the platform's infrastructure; hence the economic dependence is a result of the platform's intermediary role, more specifically its gatekeeping power. The economic dependence increases when the platform has a dominant market position because there are fewer substituting options for complementors, i.e. fewer platforms that can provide them with equally profitable market access (BOUGETTE, et al., 2019). The dominant platform becomes an unavoidable trading partner. The resulting asymmetries between the parties can affect distribution and investment capacity on the market (BOUGETTE, et al., 2019).

While the mere intersection of intermediary and dominant position gives rise to certain types of exploitative abuses, anti-competitive conduct is especially threatening when dominant platform providers are vertically integrated. In this scenario, a different kind of abusive behaviour – exclusionary abuse – becomes possible (GRAEF, 2019). It also becomes more likely since the incentives and the platform's capacity for discrimination are higher (BOUGETTE, et al., 2019).

This section focuses on the typical exclusionary abuse of self-preferencing and possible anti-competitive effects on adjacent markets as well as innovation. They exemplify how the combination of an intermediary position and a dominant position can negatively affect competition – even more so if the platform in question is also vertically integrated.

2.3.2.1 Self-Preferencing

Self-preferencing describes the practice of giving preferential treatment to one's own products or services when they compete with products and services provided by other entities (CRÉMER, et al., 2019; GRAEF, 2019).

At first glance, giving preferential treatment to their own products or services over those of competitors appears natural for profit-maximising companies (GRAEF, 2019) or

could simply constitute the reward for the management of the platform (CRÉMER, et al., 2019). However, the substantial anti-competitive effects it may entail for downstream markets make it a disproportionate practice (CRÉMER, et al., 2019; GRAEF, 2019).

Data provides the platform with the tools to make self-preferencing easier to conduct and more difficult to detect. For example, through analysing transactions of complementors, the platform provider can evaluate which products are in demand. A vertically integrated company can then stock these products in its role as a retailer (“product cloning”). Product cloning is a strategy to limit the bargaining powers of complementors and may ultimately even drive them out of the market (Monopolkommission, 2015; FARRELL, et al., 2000).

Self-preferencing can harm competition in several ways.

First, a vertically integrated platform has an incentive to present its own goods or services more prominently, for instance, by developing a search algorithm to this effect.²² Even if the platform is not vertically integrated, it is biased in favour of products or services from complementors that generate higher revenues over others (BOURREAU, et al., 2019). Both variations have an impact on consumer choice and hence ultimately affect consumer welfare (Digital Competition Expert Panel, 2019; BOUGETTE, et al., 2019).

Second, harming complementors can indirectly affect consumers. Self-preferencing usually indicates that complementors do not receive fair access to consumers. They cannot compete freely (Digital Competition Expert Panel, 2019). As a result, complementors might pass through their increased costs to consumers as well as reduce

²² Cf. *Google Search (Shopping)*.

their products in terms of quality and choice (Digital Competition Expert Panel, 2019; BOUGETTE, et al., 2019). It might also cause smaller businesses to exit the market (BOUGETTE, et al., 2019).

In the context of self-preferencing, Amazon's private-label business plays a significant role. By creating private labels, Amazon has intensified the vertical integration of the platform; it has "*become a player of its own game*" (FAHERTY, et al., 2017). KHAN describes how Amazon, upon noticing a product's popularity, either contracts directly with the manufacturer – and thus cuts out the seller – or produces the popular product itself (KHAN, 2017; KHAN, 2019). In spring 2020, a report detailed how Amazon uses data from its Marketplace sellers to push the company's own products and improve its product range.²³

Further, Amazon prefers third-party sellers that use FBA over third-party sellers using FBM. FBA-products are eligible for Amazon Prime and get a higher ranking in the Marketplace's shopping cart, the so-called Buy Box²⁴, and thus have a higher chance of actually being sold (Goat Consulting, 2019; Marketplace Pulse, 2019; KHAN, 2019). The Buy Box is where customers add items for purchase in their virtual shopping cart. Due to the high number of sellers on the Marketplace, more than one seller may be offering the selected product. In this case, a ranking algorithm chooses the winner of the Buy Box, i.e. the selected seller. Because FBA-sellers receive a higher ranking, sellers who choose the FBM program have a disadvantage in the Buy Box (Goat Consulting, 2019). In order to be successful on the Marketplace, they have to buy into the FBA program. Amazon is

²³ "Amazon Scooped Up Data From Its Own Sellers To Launch Competing Products", article by Dana Mattioli, 23 April 2020, source: <https://www.wsj.com/articles/amazon-scooped-up-data-from-its-own-sellers-to-launch-competing-products-11587650015>.

²⁴ The Buy Box was highlighted as a subject of the Commission's Amazon inquiry in the press release of 17 June 2019 (https://ec.europa.eu/commission/presscorner/detail/en/IP_19_4291).

self-preferencing on two levels: ranking their own products higher than any third-party sellers (if eligible) and making sure their logistics program is more profitable than any third-party sellers' program.

These are just some examples of several indications that Amazon is exploiting its power by self-preferencing. The self-preferencing not only occurs as a vertically integrated company but also as a 'traditional' platform provider offering merely transaction-accompanying services.

2.3.2.2 Effect on adjacent markets

Potentially anti-competitive effects from the intersection of intermediary role and dominance are not limited to the incumbent's primary market. In fact, because of the winner-take-all nature of platform markets, competitive threats for a dominant platform are more likely to come from adjacent markets (CRÉMER, et al., 2019). Dominant platforms may want to anticipate this threat by leveraging their market power into these adjacent markets. The motive for a dominant firm to leverage its market power is thus usually 'defensive' to prevent entry into their core market (CRÉMER, et al., 2019).

The tool for leveraging market power into adjacent markets is infrastructure. A dominant platform is almost always the provider of essential infrastructure for the digital economy. It can leverage its dominant position to the product or services market for which the platform provides an intermediation infrastructure (KHAN, 2017; CRÉMER, et al., 2019). It can also use its gatekeeping role to foreclose specific markets to competitors, thus making the market in question less contestable (MARTY, et al., 2020).

One type of strategy for achieving this is tying certain goods or services together. Thus, a platform can use the customer base from its core market when entering a new market. The platform resorts to the network effects created in its core market, which provide it with a significant competitive advantage over market entrants in the new market

(BOURREAU, et al., 2019). For example, Amazon offers accompanying services to its Marketplace, thus establishing itself as an infrastructure provider for the distribution of goods sold on the Marketplace. KHAN describes how Amazon “*has translated its dominance as an online retailer into significant bargaining power in the delivery sector*” (KHAN, 2017). Amazon’s dominant position gave the company a substantial bargaining advantage when negotiating contracts with delivery companies. This advantage resulted in discounts of up to 70%. Amazon was thus able to offer delivery logistics at a more profitable price than competitors (KHAN, 2017).

Another strategy to deter the market entrance of new competitors is product proliferation. It refers to dominant firms developing new products for market niches where they face an entry threat (BOURREAU, et al., 2019; SCHMALENSEE, 1978). Economies of scope allow the dominant firms to develop new products at low costs. ZHU and LIU describe how Amazon uses ties with complementors to enter new market segments (ZHU, et al., 2018). Data collection and analysis significantly enables product proliferation (BOURREAU, et al., 2019). By gathering more information about consumer preferences, dominant platforms have a competitive advantage when developing new products for niche markets.

These effects on adjacent markets harm consumers indirectly by likely affecting the product pricing level as well as compromising quality and choice. Moreover, the described practices stifle not only competition but also innovation.²⁵

²⁵ For a comprehensive analysis of tying strategies and their effect on competition, cf. VAN DEN BERGH (2017) and CORNIÈRE, et al. (2018).

2.3.2.3 Disruption of Innovation

The potential disruption of innovation is a threat detached from specific behaviour. Instead, it is the result of overall reduced competition. If complementors generate smaller margins due to *inter alia* self-preferencing or effectively cannot access a market, their ability and incentives to innovate are restricted (Digital Competition Expert Panel, 2019; KHAN, 2019). The risk of innovation can be contained to a certain degree if the innovator has enough information about consumer preferences. Again, data provides a platform with a competitive advantage in this regard.

Further, anti-competitive platform behaviour decreases the anticipated reward from innovation and thus the incentive to invest (KHAN, 2019). While the dominant platform itself still has incentives to invest and innovate (MARTY, et al., 2020), this type of innovation aims at perpetuating dominance rather than increasing competition. It potentially deprives consumers of future innovations (GERADIN, 2018).

2.4 Interim Conclusion

In summation, the combination of a platform's intermediary role and a dominant position in the market creates opportunities for both complementors and consumers. On the downside, it also leads to the economic dependence of complementors who have no appropriate substitute and are therefore exposed to certain types of abuse by the platform. Key examples for such abuses are the practice of self-preferencing and the leveraging of market power into adjacent markets.

A platform's vertical integration enhances the intertwining mechanism between intermediary position and dominance. This can lead to a unique setting where a platform's customers are concurrently its rivals. The two dimensions of the intermediary role are of particular importance in this respect: As a gatekeeper, the platform decides who accesses the market, i.e. who its competitors are, and as a (quasi-)regulator, the platform governs

its rivals' behaviour. It reverses the traditional notion of platforms as neutral intermediaries fostering a level-playing field.

From a competition policy point of view, the biggest threat in the context of online platforms therefore consists of the triple combination of intermediary position, dominance on the market, and vertical integration. A company encompassing all three characteristics faces a variety of conflicts of interest as well as the ability and the incentives to cause harm to consumers, complementors, and competition as a whole (BUDZINSKI, et al., 2020).

Amazon is such a company. The considerable traffic generated on the Marketplace has made it a bottleneck for third-party sellers (KHAN, 2019). KHAN compares Amazon to a state for third-party sellers because they have no choice but to accept the terms of use of the platform, including submission to the ranking algorithm, the Buy Box, and Amazon's recommendation policy (KHAN, 2017). The dependence of consumers on Amazon is less tangible; however, they are likely to suffer – directly or indirectly – from the current state of almost unchecked power for this platform.

3. Current Legal Framework

This chapter explores the current legal framework, namely mechanisms in competition law that respond to the previously identified threats, in a positive analysis. The focus of existing EU legislation towards online platforms is divided. A distinction exists between the framework regarding intermediaries which is shaped mainly by the so-called

Platform-to-Business Regulation²⁶ and the framework concerning the abuse of a dominant market position.

3.1 Framework regarding Intermediaries

In recent years, policy considerations started to recognise the unique role of intermediaries in the digital economy. While there is no overarching framework that captures all levels of intermediary power, various concepts aim at encapsulating the different dimensions of this power. In particular, the gatekeeping dimension has sparked a lively debate which focuses on a reinvigoration of the essential facilities doctrine. The recently introduced P2B-Regulation addresses another dimension of the intermediary role of platforms.

3.1.1 Gatekeeping Platforms and the Essential Facilities Doctrine

A gatekeeping platform does not necessarily imply a dominant position. However, if both are present, it may have adverse effects on competition, and ultimately on consumers. As a gatekeeper, the platform controls a competitive bottleneck. Historically, situations of competitive bottlenecks often entail the application of the essential facilities doctrine²⁷ (GRAEF, 2019). The essential facilities doctrine describes a legal concept according to which the owner of an ‘essential facility’ can be obliged to provide access to the facility.

²⁶ Regulation (EU) 2019/1150 of the European Parliament and of the Council of 20 June 2019 on promoting fairness and transparency for business users of online intermediation services (hereinafter referred to as the “**P2B-Regulation**”).

²⁷ In the EU, neither the General Court nor the European Court of Justice has mentioned the term “essential facilities doctrine” in their judgements so far. Instead, they refer to “refusals to deal” or “refusals to supply” (GRAEF, 2019). For purposes of standardisation, the term “essential facilities” will be used in this paper.

Initially developed for physical infrastructure like bridges²⁸, ports²⁹ and railways³⁰, it now also captures infrastructure systems of the digital economy (GRAEF, 2019). Various EU cases like *Magill*, *IMS Health*, *Microsoft*, and *Huawei* included the consideration of a data-sharing obligation.

The essential facilities doctrine requires finding a balance between the general principle of the freedom of contract, the protection of property rights, and the aim to foster legitimate competition (VAN DEN BERGH, 2017). As a result, the doctrine is applied only in exceptional cases. The scope of the essential facilities doctrine was laid out in *Bronner*.³¹ Art. 102 TFEU only triggers a duty to deal if (1) the facility must be controlled by a monopolist, (2) the facility must be indispensable to compete on the market with the controller of the facility, i.e. effective competition is excluded, (3) access to the facility is denied or granted only on unreasonable terms and (4) no legitimate business reason objectively justifies the denied access. For cases concerning a refusal to license commercially-held information, an additional requirement is that the refusal prevents the emergence of a new product.³²

This high threshold hinders the general suitability of the doctrine for gatekeepers. Additionally, there are limits to the doctrine's application in digital markets. One is the requirement of exclusion of effective competition. Previous case law³³ indicates that this requirement applies where an essential facility holder is already active on a downstream market and tries to exclude effective competition on this market by refusing to deal

²⁸ Cf. *US Terminal Railroads*.

²⁹ Cf. *B&I Line; Sea Containers*.

³⁰ Cf. *Eurotunnel*.

³¹ Cf. *Bronner*, paras. 40-41, 43-44.

³² *Microsoft*, para. 647; *IMS Health*, para. 49; *Huawei*, paras. 46-47.

³³ *Magill*, para. 56; *IMS Health*, para. 52.

(GRAEF, 2019). Consequently, the doctrine would not apply to vertically-integrated platforms, or – if the platform is vertically integrated – to newly emerging markets.

The second limitation concerns the requirement that complementors seeking access to the essential facility have to introduce a new product in cases relating to refusals to license. However, the requirement is often incompatible with the characteristics of digital markets, particularly network effects and switching costs (GRAEF, 2019). Because of these characteristics, the introduction of goods and services similar to the one already existing in the market is often the only economically sensible decision for access-seeking complementors (GRAEF, 2019).

In addition to these challenges, imposing a duty to grant complementors access to a platform's data set would have to be aligned with data privacy laws (BRUC, 2019).

3.1.2 Regulating Platforms and the P2B-Regulation

The P2B-Regulation was adopted on 20 June 2019 to create “*a competitive, fair, and transparent online ecosystem where companies behave responsibly*” (Recital 3). The P2B-Regulation refers explicitly to the increasing dependence of SMEs on platforms and recognises the ensuing superior bargaining power of platform providers (Recital 2). The policy measures adopted in the P2B-Regulation to counteract these hazards are increased fairness and increased transparency (Recital 8). The P2B-Regulation primarily targets the Terms and Conditions of online intermediation services and online search engines, the addressees of the regulation. Among the new transparency obligations are the requirement to explain any differentiated treatment (Art. 7 P2B-Regulation), the requirement to describe the ranking mechanism, and whether payment of any kind influences the ranking mechanism (Art. 5 P2B-Regulation). For fairness enhancement, the P2B-Regulation stipulates the set-up of an internal complaint-handling system (Art. 11 P2B-Regulation), and the obligation that any restriction, suspension, and termination on behalf of the online

intermediation service have to be accompanied by a statement of reasons (Art. 4 P2B-Regulation).

While the P2B-Regulation identifies self-preferencing as a threat to fair competition and consumer choice (Recital 30), the available remedies are limited to obliging the online intermediation service provider to describe their differentiated treatment. The practice of self-preferencing in itself is neither banned, nor is the infringement of the obligation to describe the differentiated treatment sanctioned in the P2B-Regulation. Art. 3(3) P2B-Regulation stipulates that a violation renders the relevant clause in the Terms and Conditions invalid. Still, beyond that, the member states are left in charge of imposing sanctions at their own discretion.

Overall, the P2B-Regulation is thus no more than a “*light-touch regulatory approach*” (GRAEF, 2019) that recognises the increasing threats from powerful online intermediation services but is cautious in its protection of smaller businesses (GRAEF, 2019).

3.2 Framework regarding Dominance

The idea behind the European framework concerning an abuse of dominance is that while a dominant position by itself is not unlawful, it poses a particular threat to competition as an institution. Therefore, a dominant undertaking may not engage in certain types of conduct, even if the behaviour would not raise any concern if an undertaking without market power practised it.³⁴ The dominant firm thus gains a special responsibility by virtue of its dominant position (VAN DEN BERGH, 2017).

³⁴ *Nederlandsche Banden*, para. 57; *ITT Promedia*, para. 139.

Art. 102 TFEU codifies the prohibition of anti-competitive behaviour by a dominant undertaking. The norm's two central concepts, dominance and abuse, are undefined. While there are definite advantages to a broad and vague wording of Art. 102 TFEU both broad and ambiguous – flexibility, range of application, neutrality – it also means that competition law in this respect is subject to a bottom-up approach, i.e. formed on a case-by-case basis (COLOMO, 2018).

For example, the concept of dominance was substantiated in *United Brands*. In its decision, the Court established that a dominant position “[...] *relates to a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market [...]*”³⁵. In *Hoffman-La Roche*, the Court then clarified that “[...] *such a position does not preclude some competition, [...], but enables the undertaking which profits by it, if not to undermine, at least to have an appreciable influence on the conditions under which that competition will develop, and in any case to act largely in disregard of it [...]*”³⁶. Helped this definition, EU competition authorities rely on a case-specific test with a series of factors to assess whether a dominant position exists.³⁷ The most commonly used factor is the existence of market shares. However, authorities conceded that “[*i*]n fast-growing sectors characterised by short innovation cycles, large market shares may sometimes turn out to be ephemeral and not necessarily indicative of a dominant position”.³⁸ As this ascription applies to markets of the digital economy, factors other than the market share gain significance. These other factors include whether the service or good is offered free of charge³⁹, whether there are

³⁵ *United Brands*, para. 65.

³⁶ *Hoffman-La Roche*, para. 39.

³⁷ *United Brands*, para. 66.

³⁸ *Google Search (Shopping)*, para. 267; *Cisco Systems*, para. 69.

³⁹ *Google Search (Shopping)*, para. 268.

technical or economic constraints that might prevent users from multi-homing or increase switching costs⁴⁰, and whether entry barriers exist in the relevant market⁴¹.

These factors encompass both the positive and negative elements of dominance (cf. chapter 2.2). With multi-homing, the most significant factor for the decrease of dominance is explicitly mentioned. The inclusion of entry barriers into the assessment of a possible dominant position means that network effects and economies of scale on the one hand and data on the other hand can be taken into consideration. However, the unique role of data for the entrenchment of a dominant position is so far still underrepresented case law

There have been two notable cases concerning platform dominance. *Google Search (Shopping)* concerned the practice of self-preferencing by a vertically-integrated platform, and *Google Android* dealt with tying arrangements. In *Google (Search) Shopping*, the Court found that Google gave its price comparison service Google Shopping a more favourable positioning in its search results compared to competing price comparison services. This practice diverted traffic from competitors to Google Shopping, resulting in anti-competitive effects on both the markets for comparison shopping services and general search services. In *Google Android*, the Commission found that Google imposed illegal restrictions on Android device manufacturers and mobile network operators to entrench its dominant position in the market of mobile internet search. Google's licensing conditions made it mandatory for manufacturers to install *inter alia* the Google Search app and the Google Chrome browser. Both cases resulted in enormous fines for Alphabet, Google's parent company.⁴²

⁴⁰ *Cisco Systems*, para. 73.

⁴¹ *United Brands*, paras. 91 and 122; *Hoffman-La Roche*, para. 48; *Google Search (Shopping)*, para. 269.

⁴² Alphabet was fined EUR 2.42 billion in the case *Google Search (Shopping)* (cf. press release, 27 June 2017, source: https://ec.europa.eu/commission/presscorner/detail/en/IP_17_1784) and

The two cases will illustrate how competition case law and enforcement has developed in the age of the digital economy.

3.2.1 The Persecution of Self-preferencing

In *Microsoft*, the Court stated that Art. 102 TFEU does not impose a general prohibition of self-preferencing.⁴³ An exception to this rule applies for the owner of an essential facility. However, even below this threshold, self-preferencing by a dominant undertaking can be abusive, subject to an effects test (CRÉMER, et al., 2019). Opponents of this view allege that it takes away a dominant undertaking's right to compete on the merits. Scholars, namely VESTERDORF (2015), argue that a 'duty of non-preference' is tied to the essential facilities threshold: "*If the dominant firm is under no duty to deal under Art. 102 TFEU, the fact that it agrees to deal with its competitors in downstream or related markets cannot lead to an additional and even more onerous obligation to deal with them under conditions similar to its own services.*" (PETIT, 2015). This was also Google's stance on *Google Search (Shopping)*. Google argued that its behaviour could only be abusive if the *Bronner* criteria were fulfilled. Otherwise, the Commission would impose a duty to provide access for complementors although access is not indispensable to compete.⁴⁴

There are several arguments against this formal interpretation. They amount to the point that EU competition law and Art. 102 TFEU provide a legal basis to categorise self-preferencing as abusive, even without relying on the essential facilities doctrine. In particular Art. 102(c) TFEU is named in this context. The norm has been predominantly applied in cases⁴⁵ where a vertically-integrated dominant firm sought to advantage its

EUR 4.34 billion in the case *Google Android* (cf. press release, 18 July 2018, source: https://ec.europa.eu/commission/presscorner/detail/en/IP_18_4581).

⁴³ *Microsoft*, para. 1088.

⁴⁴ *Google Search (Shopping)*, para. 645.

⁴⁵ These cases include *Deutsche Bahn* and *De Danske Statsbaner*.

downstream operations and “*some of these cases may well have featured an essential facility. However, none of those cases was legally reasoned in essential facilities terms*” (PETIT, 2015). But even detached from Art. 102(c) TFEU, self-preferencing by a vertically integrated platform could constitute an abuse sui generis (HOFFER, et al., 2019). An argument in favour of not tying the practice of self-preferencing to the essential facilities doctrine is that if a dominant undertaking voluntarily enters into a contractual relationship and in this relationship grants access to a complementor, then the dominant firm accepts an economic benefit from that contractual relationship. Consequently, a higher standard for rules of conduct in that relationship is justified (HOFFER, et al., 2019).

In *Google Search (Shopping)*, the Commission argued that Google’s conduct amounted not to a passive refusal (which would require the application of the essential facilities doctrine) but an active behaviour relating to the more favourable positioning.⁴⁶ In this way, the Commission could impose the obligation of equal treatment on Google without proving that access to Google’s general search results is indispensable for price comparison services to compete (GRAEF, 2019).

The dividedness concerning the treatment of self-preferencing illustrates how difficult the persecution of online platform behaviour under Art. 102 TFEU is for competition authorities. Because the Commission and courts act on a case-by-case basis, they cannot impose an overall concept for anti-competitive behaviour. The lack of a uniform solution

⁴⁶ *Google Search (Shopping)*, para. 650.

creates inconsistency. This creates legal uncertainty on the one hand and considerably slows down competition enforcement on the other hand.⁴⁷

3.2.2 The Illegality of Tying

Traditionally, EU competition authorities have been sceptical of tying practices, culminating in a treatment that comes close to per se illegality (VAN DEN BERGH, 2017). The relevant case law concerning tying arrangements on a European level stems from *Hilti*, *Tetra Pak II*, and *Microsoft*. The tying of two products or services is considered abusive under Art. 102 TFEU if (1) the tying and tied products are two separate products, (2) the undertaking is dominant in the market for the tying product, (3) the dominant undertaking does not give its customers or end-users a choice to obtain the tying product without the tied product, and (4) the tying is capable of restricting competition.⁴⁸ To the extent that tying is capable of restricting competition, in *Hilti*⁴⁹ and *Tetra Pak II*⁵⁰, courts found it sufficient that the tying of a specific product has a foreclosure effect by its very nature. Once established, case law allows only limited scope for an efficiency defence to this conduct. Required is an objective justification for the tying arrangement, for instance, in the form of savings in production and distribution costs, or the reduction of transaction costs.⁵¹

Google Android is interesting because by making the pre-installment of the Google Search app and the Google Chrome web browser a condition for accessing Google's platform business, the factual situation in *Google Android* resembles a refusal to deal and

⁴⁷ The investigation in Google Search (Shopping) started in November 2010 (cf. press release, 30 November 2010, source: https://ec.europa.eu/commission/presscorner/detail/en/IP_10_1624) and lasted a seven years before the Commission decision in 2017.

⁴⁸ *Microsoft*, paras. 859, 862, 864, 867, 869, and 1144-1167; *Google Android*, para. 741.

⁴⁹ *Hilti*, paras. 100, 101.

⁵⁰ *Tetra Pak II*, para 37.

⁵¹ Cf. *Microsoft*, paras. 859 and 869.

thus an essential facilities situation (GRAEF, 2019). By contrast, in *Microsoft* for example, the tying amounted to consumers having to purchase two products, the tying product and the tied product, with no further disadvantage if they decided not to purchase.

In essence, European law recognises the possibility of dominant undertakings to leverage market power into adjacent markets as possible abuse under Art. 102 TFEU. At the same time, it becomes evident that existing case law can only partly capture the particularities of the online platform economy. As illustrated in *Google Android*, Google's position as a platform provider adds another layer to the 'simple' illegality of tying. Competition authorities need to be aware that tying arrangements can simultaneously pose as platform access-restricting conditions.

3.3 Interim Conclusion

A positive analysis of the existing legal framework shows that the competitive problems arising from the intersection of platform dominance and a platform's intermediary role have thus far only been addressed in fragments. For example, the P2B-Regulation acknowledges the economic dependence of complementors on platform providers but fails to draw connections to Art. 102 TFEU or even impose sanctions. The Commission has also recognised this lack of legislation in the recently published Inception Impact Assessment (European Commission, 2020).

The most recent cases persecuted by the Commission – *Google Search (Shopping)* and *Google Android* – illustrate that it is difficult to apply tried-and-tested case law to cases involving dominant platforms. They also show that European competition authorities can only react to individual behaviour on a case-by-case basis without possessing the tools to address the structural problems on markets in the digital economy, especially markets dominated by companies with a platform business model. One dimension of this fragmentary competition toolbox is the Commission's inclination to

rely on fines and cease-and-desist orders, as applied in *Google Search (Shopping)* and *Google Android*. Moreover, the duration of proceedings in *Google Search (Shopping)* exemplifies that competition authorities are too slow in dealing with an affected market structure. Thus, even if it can mitigate individual abusive conducts, the current framework cannot provide an overarching solution to the anti-competitive threats resulting from the intersection of a platform's intermediary power and dominant position.

4. Policy Perspectives

This final chapter aims to find solutions to the gaps within the legal framework, as displayed in chapter 3. In this respect, the major drawback of the existing framework is that it targets the specific behaviour of a company only once that behaviour is already taking place. However, the protection of competition as an institution is not contingent on tackling a particular behaviour. To this extent, even the threats set out above (cf. chapter 2.3.2) are only exemplary, there are multiple other ways for a dominant platform with intermediary powers to abuse its position. Therefore, the prerequisite for any long-term solution is that it addresses this systemic problem and counteracts anti-competitive effects on a structural level.

In this regard, the essential factors of the intersection of intermediation power and dominant position need considering. These factors have in common that they connect to the “tipping”-dynamic: Network effects lead to a virtuous circle that ultimately tips the market towards a market leader. The position as market leader strengthens the gatekeeping position, which in turn deepens the economic dependence of complementors on the platform. The more dependent the complementors become on the platform's infrastructure, the more the platform's dominant position increases. It not only enables the platform to limit multi-homing but also to extend its data-driven advantages into adjacent markets to establish a digital ecosystem. As dominance-decreasing and

dominance-entrenching factors diminish, the lock-in effect takes a more potent effect. Thus, tipping is the focal point around which the structural particularities of the intersection of dominant position and intermediary power revolve.

Effective competition policy can address these structural particularities in two ways. One approach is to enable competition authorities to anticipate tipping by adopting the appropriate measures. A second approach should focus on possibilities to reverse the tipping process for cases in which the first approach was unsuccessful.

Recent policy reports include several proposals concerning the adaption of the existing framework. Among these proposals is the reversal of the burden of proof (CRÉMER, et al., 2019), an adjustment of relevant merger thresholds (Stigler Committee on Digital Platforms, 2019; Digital Competition Expert Panel, 2019), or the re-definition of the concept of a dominant position (Autorité de la concurrence, 2020). While all these proposals are worth implementing or at least warrant closer consideration, their impact on the discussed (structural) problems is limited. In short, they are suitable short-term remedies but no long-term solutions.

4.1 Anticipate Tipping

4.1.1 Procedural Measures

On a procedural level, a policy reform should enable the Commission as the relevant competition authority to act faster, i.e. to speed up investigative processes. One proposal in this respect is the reinforcement of interim measures to (at least) preserve the current state of the market until a decision is reached (Digital Competition Expert Panel, 2019). The Commission used an interim measure for the first time in over ten years in

*Broadcom*⁵², and Commissioner Vestager has indicated that this tool might find more frequent use in the future.⁵³ However, from an economic point of view, there is a certain risk associated with interim measures. Imposing obligations on dominant companies before having definite knowledge of abusive behaviour means scrutinising the company for their dominant position alone. Even in light of the special responsibility under Art. 102 TFEU, economic thinking forbids punishing companies for good business conduct (VAN DEN BERGH, 2017). The consequences for business incentives could be detrimental. Consequently, by increasing the use of interim measures, the Commission could ultimately hurt competition more than protecting it. Rather, an interim measure is only a viable option where the ongoing investigation will very likely result in the finding of abusive behaviour. This was the case in *Broadcom*, but it seems unlikely that interim measures would find use in ‘risky’ procedures like *Google Search (Shopping)* (DOLMANS, et al., 2019).

A way to improve the risk assessment of interim measures is to reinforce the disclosure obligations of companies. One of the practical problems of antitrust enforcement in general is that market participants in the digital economy are so-called moving targets (Monopolkommission, 2020). As such, they complicate the investigative process during which competition authorities gather information on potentially abusive conduct. Enhanced disclosure obligations of companies can mitigate the issue of moving targets. These obligations could be paired with the administrative authority to relax the burden of proof in the event of failure to comply with the obligation.⁵⁴

⁵² Case AT.40608. “Antitrust: Commission imposes interim measures on Broadcom in TV and modem chipset markets”, press release, 16 October 2019, source: https://ec.europa.eu/commission/presscorner/detail/en/IP_19_6109.

⁵³ “Antitrust: Commission consults stakeholders on a possible new competition tool”, press release, 2 June 2020, source: https://ec.europa.eu/commission/presscorner/detail/en/ip_20_977.

⁵⁴ This proposal is part of a policy brief on the 10th GWB-novella and originally refers to German law. However, the policy brief explicitly mentions the possibility to adopt a similar mechanism

4.1.2 Ex-ante Regulation

Concerning substantive law, the establishment of ex-ante regulatory tools is vital to deal with the structural problems of multi-sided markets in the digital economy.

Ex-ante regulation is often associated with the risk of slowing down innovation and not leaving enough room for justification (DOLMANS, et al., 2019). But ex-ante regulation can help competition authorities to influence the market structure in order to prevent tipping. Ex-ante regulatory tools would tackle those features in a market that make tipping more probable. To minimise the risk of false positives, the adoption of regulatory measures needs to be tied to the designation of a special market status.

Various policy reports have laid the groundwork for designating a special market status to specific platforms (cf. chapter 1.1). The common ground of these proposals and recommendations is the realisation that some companies can gain powers that go beyond pure market dominance up to a point where they take on a role of almost systemic importance. A definition based on these assumptions would only apply to a small number of companies (European Commission, 2020), thus decreasing the risk of false positives.

Regulatory tools provide several options to anticipate tipping.

First, they can lower entry barriers. If competition for the market is no longer possible because the incumbent deters entry, the market is no longer contestable. As entry usually takes place in niche segments of a market, preventing product proliferation is one of the main tasks in keeping markets contestable. To this extent, data can play a special role in the process of lowering entry barriers. As the Digital Competition Expert Panel

on EU-level (Monopolkommission, 2020). The Commission's Inception Impact Assessment also features the idea of simplifying the information collection process by regulators (European Commission, 2020).

puts it, “[t]here may be situations where opening up some of the data held by digital businesses and providing access on reasonable terms is the essential and justified step needed to unlock competition” (Digital Competition Expert Panel, 2019). A current hurdle to access provision is the high threshold of the essential facilities doctrine. However, like most of EU case law, the essential facilities doctrine was developed for the ‘old’ network economy. To adapt the doctrine to the age of digitisation appears indispensable. As opposed to the facilities of the ‘old’ economies into which the eventual facility holders invested in order to use the facility for their business, dominant platforms obtain large amounts of data as a simple by-product from their business activities. A data-sharing obligation would thus not be related to the infrastructure itself but only to a product of the infrastructure.

Second, a data-sharing obligation could form part of a list of conduct obligations for companies with an identified systemic relevance for the market. Other conduct obligations next to data access could be, for instance, a rule that forbids companies from complicating multi-homing. Enhancing multi-homing is of particular importance to anticipate tipping as it is the prerequisite for protecting competition on digital markets. Alternatively – or cumulatively –, the designation of a special position in the market can be tied to a “blacklist” of practices that the relevant company may not undertake, for example self-preferencing and product proliferation (Bundesministerium für Wirtschaft und Energie, 2020; European Commission, 2020).

Third, Art. 102 TFEU can be expanded to also cover attempts at the abuse of dominance. In contrast to *inter alia* Art. 2 of the Sherman Act, the European competition framework is so far not covering attempts in order to minimise the risks of false positives (KÄSEBERG, 2012). To avoid undermining this system, the types of attempted abuse should be clearly defined in advance, and again only companies with a designated systemic role in the market should be eligible for attempted abuse of dominance.

The Inception Impact Assessment by the Commission proposes ex-ante regulatory tools as an addition to existing competition law tools. Those competition law tools, together with the P2B-Regulation, would form the baseline for dealing with platforms. They could be complemented with a sector-specific regulatory approach for structuring platforms where the ‘baseline’ framework does not suffice in capturing competitive distortions related to those platforms (European Commission, 2020).

4.2 Reverse Tipping

4.2.1 Restorative Remedies

Restorative remedies can enable disadvantaged competitors and complementors to regain strength (CRÉMER, et al., 2019). This type of remedy has a broader scope than the typical cease-and-desist order that is usually accompanied by fines. Rather, restorative remedies aim at “*re-establish[ing] the situation that existed before the dispute*”⁵⁵, i.e. before the infringement. They either grant advantages to competitors and complementors to enable them to grow as fast as possible or impose structural remedies (RITTER, 2017). Since data plays a vital role in the competitive dynamics of the digital economy, a restorative remedy could include the obligation to share competitively relevant data with competitors and complementors (CRÉMER, et al., 2019). Other potential restorative elements include handing over customer lists, information obligations (RITTER, 2017), or enabling multi-homing.

The drawback of restorative remedies is that their underlying assumption requires constructing a counterfactual scenario which entails considerable uncertainty. The remedy aims at eliminating the consequences of abusive behaviour, which means that

⁵⁵ *Akzo*, paras. 155, 157.

competitors would have to be placed in a hypothetical situation without the infringement (RITTER, 2017). These difficulties of implementation reflect the traditional understanding of competition law as a tool of deterrence rather than restoration.

4.2.2 Structural Separation

Historically, the structural separation of companies was conducted in markets where a bottleneck facility served as an intermediary or an infrastructure provider (KHAN, 2019). In theory, under Art. 7 of Regulation No. 1/2003⁵⁶ the Commission already has the power to break up companies that pose too big a threat to competition on the merits. However, a relatively high threshold – the measure has to be proportionate and effective to bring the infringement to an end – and the Commission’s policy to be as least disruptive as possible has rendered this tool mostly abandoned. Nonetheless, the ‘New Brandeis School’ has raised the option of disintegrating a company repeatedly in the context of excessive platform power, especially for vertically integrated platforms.

In theory, the advantages of structural separation are clear: The conflict of interest arising from vertical integration would be eliminated (KHAN, 2019). Further, cross-financing to entrench dominance, as well as an overall excessive concentration of power, could be prevented (KHAN, 2019). In terms of costs, structural separation is also advantageous because it requires less ex-post monitoring than other competition law measures (Stigler Committee on Digital Platforms, 2019).

Several considerations oppose these advantages. First, a break-up would result in a lower degree of indirect network effects on the platform side of the business (BUDZINSKI, et al., 2015). For instance, Amazon’s retail business contributes to indirect

⁵⁶ Council Regulation (EC) No. 1/2003 of 16 December 2002.

network effects generated on the Marketplace. As network effects increase economies of scope and scale, a lower degree of network effects is likely to result in efficiency losses. Thus, the benefits of vertical integration are undermined by disintegrating a company (DOLMANS, et al., 2019).

Moreover, because the tool has only been used sparsely, little evidence exists on whether a break-up would have any beneficial effect on competition (CRÉMER, et al., 2019). Finally, there is a certain risk that once a company is disintegrated, another company would simply acquire the dominant position in the market. In this respect, a separation would have little effect on the tipping dynamic of the market (DOLMANS, et al., 2019).

Considering these uncertainties concerning platform-based markets, the cost-benefit-balance of structural separation appears still too ambiguous to view the tool as a general, proportionate measure to reverse tipping. In light of the high threshold required under Art. 7 of Regulation No. 1/2003, an application is only conceivable in exceptional circumstances with little margin for error.

Conclusion

Commissioner Vestager compared markets to coiled springs: They can be stretched and pulled out of shape and still snap back, but once the spring is stretched too far, it no longer works.⁵⁷ Multi-sided markets are strongly characterised by network effects and the potential to tip. Such a market environment requires competitive tools that allow the

⁵⁷ Cf. Speech by Margarete Vestager at the ASCOLA Annual Conference, 26 June 2020, source: https://ec.europa.eu/commission/commissioners/2019-2024/vestager/announcements/competition-digital-age-changing-enforcement-changing-times_en.

relevant authority to act quickly and efficiently when new technologies and business models emerge.

One instance of such a development is the new, systemic role of platforms in the context of digitisation. Amazon exemplifies this role. The company pursues two lines of business, one as an online retailer and one as a marketplace and uses each line of business to further the other.

An economic analysis of the relevant concepts shows that different dimensions of intermediary power and the effects of a dominant position converge on dominant platforms. *Prima facie* the advantages resulting from this convergence prevail: There is not only a significant reduction in search costs for consumers but also a multitude of possibilities for small businesses to access a market. On closer inspection, however, it transpires that these advantages are only available on the dominant platform's terms. Additionally, there are economic dependence for complementors and detriments for consumers in the form of potentially reduced quality and choice.

A vertically-integrated platform that competes with its own users adds another layer to this predicament. In this case, the platform has even less incentive to remain a neutral intermediary. Again, Amazon's two lines of business exemplify this theoretical concept. The example of Amazon shows that the anti-competitive threats surfacing with the new, systemic role of platforms are not limited to a single behaviour. Rather, the possibilities in which dominant platforms in their capacities as regulators and gatekeepers can harm competition are manifold and could only be addressed in excerpts in this paper.

Nevertheless, it is evident that data has a crucial role to play; not only as a tool employed by dominant platforms to entrench their position but also as a means to level the playing field again.

A positive analysis of the current legal framework demonstrates that existing competition law tools can only tackle individual behaviour *ex-post*, i.e. after or during the

abuse of dominance is taking place. Overall, competition authorities are too slow, and their tools not yet adjusted to the challenges of digitisation and thus the new, systemic role of platforms. The adaption of existing tools to these new developments is perhaps a suitable short-term remedy but require further analysis in an extent exceeding this paper. In any case, as adaptations to the existing framework are not sufficient to tackle the structural problems of platform-based markets, they are not a suitable long-term solution.

Instead, the paper proposes tools that aim at those characteristics of (dominant) platforms which culminate in the market's tipping dynamic. Competition authorities should hence focus on the tipping points of markets. To this end, the paper proposes two approaches, each targeting a different point along the tipping process.

Ideally, competition authorities anticipate tipping. Procedural measures, namely interim measures and enhanced disclosure obligations can help speed up the investigative process – or at least preserve the status quo during an ongoing investigation. On a substantive law level, the paper proposes ex-ante regulation as a tool to manage tipping points.

In the case that the market has already tipped, competition authorities should be equipped with a set of tools to reverse tipping as far as possible, for instance, by lessening its impact on competitors and consumers. Restorative remedies can achieve this by potentially even using data access as compensation. Another, significantly more disruptive measure, is the disintegration of a vertically integrated company. In theory, by depriving platform providers of the incentive to abuse their position and of network effects emanating from a vertically integrated business, structural separation can make a market contestable again. However, there is little scientific evidence as to whether in practice structural remedies have a positive effect on competition. Therefore, this is a path that requires further in-depth analysis and research before it can be considered a practical option.

Thus, the paper concludes not with a single, all-encompassing solution but rather a mix of approaches. These approaches can contribute to equipping competition authorities to deal with the challenges the digital economy has to offer.

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