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Who Owns the Internet? A Brief Overview of the US Antitrust Law and EU Competition Law in the Internet Industry

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ABSTRACT

In appearance the internet is open and belongs to no one, yet in reality it is subject to concentrated tech firms that continue to dominate content, platform and hardware. This paper intends to highlight the importance in preventing any one firm from deciding the future, however this is no easy feat considering both: (i) the nature of the industry as ambiguous and uncertain and (ii) the subsequent legal complexities in defining the relevant market to assess and address their dominance without running the risk of hindering it. Thus, the following paper tries to fill the gap by attempting to provide a theoretical and practical examination of: (1) the nature of the internet; (2) the nature of monopolies and their emergence in the Internet industry; and (3) the position of the US in contrast to the EU in dealing with this issue. In doing so, this narrow examination illustrates that differences exist between these two regimes. Why they exist and how they matter in the Internet industry is the central focus.

WHO OWNS THE INTERNET? A BRIEF OVERVIEW OF THE US ANTITRUST LAW AND EU COMPETITION LAW IN THE INTERNET INDUSTRY

I. Introduction

Twenty years have passed since the landmark antitrust case against Microsoft that led to the opening of the market to a new generation of tech firms. Yet, we find ourselves confronted with the same problem: domination of the marketplace and decision-making by few tech corporations. Like the IBM case in the 1980s, this antitrust case is significant not only for preventing Microsoft from potentially controlling the future of the web, but also, ironically for paving the way for companies like Google, Facebook and Amazon to enter the market, consolidate into their own "monopoly" and stifle competition. So, the pattern continues, "today's monopolies are yesterday's startups" (Dunn, 2017).[1] Or so they say.

The following discussion excludes economic questions concerning the digital disruption of the economy and the consequences of monopolies on competition. It instead focuses on how monopolies arise within the internet industry and in turn how the United States (US) deals with this dilemma in contrast to the European Union (EU). In doing so, the article concludes by demonstrating the perils of an Internet controlled by few yet the difficulties in determining the "few" as a threat to competition and the ensuing dimensions this provides for classical competition policy.

II. What is the internet?

In order to know why the internet is vulnerable to monopolies, we must know what it is that we are observing - what is meant by the internet and thus "the web"[2]. The internet, as a means to an end, allows us to create logical and independently functioning networks through the exchange of information over wireless links, telephone wires, and dedicated data cables. This is significant for two reasons. First, the instrumentality of the internet implies it is a tool, something that we use for something else. Second, the internet, as something available to all members of society, constitutes a public commodity.

In response to the first point: the instrumentality of the internet makes it subject to private firms who in turn control what we see and thus our consciousness. An example

[1] Original quote of Luigi Zingales.

[2] According to the Justice Department in the US v. Microsoft case in 1999, the web "is a massive collection of digital information resources stored on servers throughout the Internet" (United States of America v. Microsoft Corp., 2000).

is filtering software. Content-control software restricts or controls the content by selecting information that is consistent with the internet user's beliefs and predispositions. This can be troubling considering the data some of these companies have on their customers. The most cited example is the infamous case of Google in China and the state's ability to censor information through the platform. By controlling the platforms and technologies, the firms enable the governments with the proper tools to control the space and the occultation of reality. This undermines pluralism and liberty thus, the very foundations of democracy (Barber, 2006).

And regarding the second property of the internet: the internet as a public good. If the internet is a public good then it belongs to no one. This assumption is inaccurate for two reasons. First, in order for something to be a public good it must be provided by someone -- the government or a private company. Thus, although the product is "free" the user is not the owner (say Internet Explorer for example). This introduces the second point; although in theory it is a public good – i.e. belonging to no one - in reality this is not the case. Consider the hardware, software and programs and points of access, for example. They are all private. That is to say, they are owned by private companies like IBM or Apple in the case of hardware, Google in the case of software, Microsoft in the case of programs like Web service content hosting and AT&T when discussing points of access (i.e. covers more than 300 million people).

Moreover, the internet is not neutral. It is inherently a tool, therefore susceptible to manipulation. Within these conceptions of power and control symptomatic of the Internet exists conceptions of monopoly and intervention.

III. How do monopolies arise in the Internet Industry?

In the similar way the internet cannot be taken for granted as free and open, the market in which it operates cannot be limited to a narrowly defined understanding of market. To do otherwise would prevent us from defining: (i) a monopoly; (ii) if a monopoly is a threat; and ultimately, (iii) how different legal systems address and assess monopolies in the internet industry.

First things first, what do we mean when we say the Internet industry?

What is the internet industry?

At this point it will be helpful to introduce some terminology. The internet industry refers to the totality of consumers, producers and service providers using the internet as a means to buy or sell products and services to consumers (Roosebeke, 2016). Taking into account the previous definition of the internet, it refers to big data, analytical tools and wireless networks through which meta-level networking functions to distributed systems. This can include anything from Facebook's social media platform; Amazon's sales platform; Google's online advertising; Apple's hardware, OS, online store and terms by which third parties do business; and Microsoft's desktop-software. All five distribute their software and in turn sell data and access to consumers. Practically speaking, these firms can be divided into two groups: (1) those which sell goods and services to paying customers (Amazon, Apple and Microsoft); and (2) those which provide pure digital services to users "free of charge" (Alphabet/Google and Facebook).

Therefore, the Internet industry by itself is not a single market. It is an industry composed of various markets. The industry is characterized by: platforms, access to data, and access to consumers, which in turn include retail markets for services and appliances, as well as, markets for data and access to consumers. On one hand, examples of common retail markets could include: (i) Google's search engine or Amazon's search machine; (ii) online trading sites that gather data and make use of it (e.g. Facebook's social media network or Amazon's distribution channel); (iii) Paypal's billing and payment services; (iv) user analytics; (v) online advertising; (vi) browser producers like Microsoft's Internet explorer or Google's chrome; and (vii) data sensitive markets like eHealth. However, on the other hand and in reference to the last two characteristics of the industry – access to data and access to consumers – other markets could include service providers selling data and access to consumers. This distinction is significant when determining whether or not Microsoft was a monopoly in the 2000s in the software market versus the wholesale market, if Google was a monopoly in the search market in 2014 versus the advertising market in 2018 and if Amazon is a monopoly in e-commerce versus its cloud service.

What is a monopoly?

Well, in order to understand what a monopoly is we must first determine what a monopoly is not. A monopoly is not perfect competition[3]. In perfect competition every firm is undifferentiated, sells the same homogenous products and the barriers to enter and exit the market are low. In a monopoly, on the other hand, the barriers to enter the market are high and competition is low. These conditions allow monopolists to maximize their profits by producing at the price and quantity in which they can capture more value – i.e. create profit. Thus, true monopolies are rare. That is to say, one firm and impossible entry. Rather what is more common, particularly in the Internet industry, is a dominant firm. By dominant firm, the paper refers to a large firm that surpasses its competitors in sheer scale by offering a better product at lower prices – e.g. superior technology and economies of scale. When is this a problem if the business practices benefit the consumer?

Monopolistic tendencies are problematic to competition due to the high barriers to entry, such as: (i) the power to control prices or (ii) exclude competition within the market. Therefore, the fundamental questions that regulators must ask themselves when considering whether or not a monopoly exists and in turn if it is a threat or not are: (i) does company A exert anticompetitive pressures on price? And (ii) does company A's dominant position keep competitors out?

[3] In fact, the original concept of competition dates back to 18th century in Adam Smith's *Wealth of Nations*: competition is the absence of legal restraints on trade.

Are monopolies inevitable in the Internet Industry?

When discussing the internet industry, one cannot avoid the short innovation cycles characteristic of both the emergence of the companies and their disruptive technology. These cycles lead to potential competition problems and serious concerns of market concentration. Market concentration is in turn only further accelerated by digital services with privileged access to data and consumers. This cycle or pattern of development of technologies, as coined by legal scholar Tim Wu, is equally if not even more applicable to digital technologies in the Internet industry. Wu gives a succinct overview of the cycle of these technologies in the following passage:

> "A typical progression of information technologies: from somebody's hobby to somebody's industry; from jury-rigged contraption to slick production marvel; from a freely accessible channel to one strictly controlled by a single corporation or cartel – from open to closed system. It is a progression so common as to seem inevitable, though it would hardly have seemed so at the dawn of any of the past century's transformative technologies, whether telephony, radio, television, or film. History also shows that whatever has been closed for too long is ripe for ingenuity's assault: in time a closed industry can be opened anew, giving way to all sorts of technical possibilities and expressive uses for the medium before the effort to close the system likewise begins again." (Wu, 2010).

If we apply this logic to the Internet industry new inventions lead to a period of openness followed by a period of closure, in which companies like FAAAM (Facebook, Amazon, Apple, Alphabet/Google and Microsoft) establish a dominant market power by offering a single network, better programming, and more choices. The consumer is happy because he or she gains a more attractive and uniform product (consider the iPhone for example). The company becomes more efficient, the competitors disappear, and the enterprise has effectively captured value and profit, gaining possession of either a monopoly or dominant power. The company's success comes at a price of higher barriers to entry. For example, with the volume of user data that some of these companies conglomerate they have been able to invest in building vast global communication, data storage and computational infrastructure, in turn allowing them to provide the consumer with a better product at a lower price. Yet the tradeoff is stifling competition. A paramount example of this efficiency advantage is Amazon's "getting big fast" strategy that allowed it to dominate online retail. Amazon thought long term and invested its profits in innovation - infrastructure, corporate acquisition and price – cutting - ultimately allowing it to leverage those investments to expand its market and eventually dominate cloud computing. By monopolizing e-commerce, Amazon could afford to invest in the future and invent new and better products, benefiting society at large through productive efforts. Now consider the network world for example. It is dominated by those same five global corporations – Facebook, Amazon, Apple, Alphabet and Microsoft. The speed at which they have risen to the top is unprecedented. In just 11 years, all five have surpassed global giants in markets ranging from energy (ExxonMobil) to industry (GE) and banking (Citigroup) (Naughton, 2017). Market capture is one measure of corporate dominance. Yet the speed at which these tech giants have wielded this market power is just one of the numerous reasons why regulators at both the Federal Trade Commission (FTC) and European Commission have been choking on their dust since they "disrupted" the market.

There you have it. So, while Amazon controls cloud computing and online retailing; Google dominates search, the Android mobile operating system and online video; Facebook controls social media; Apple manages to dominate the internet market; and Microsoft continues to dominate Office software and organizational IT; it comes as no surprise that the "frightful five" were the top five most valuable companies in the US, rendering them more powerful than many institutions and governments (Manjoo, 2017). By effectively mastering digital technology with an efficiency advantage, these companies have immense power and control - in terms of knowledge on their users' behavior, tastes and preferences[4]. Yet none of these activities are illegal unless one of these big tech giants starts acting up by bullying or abusing its market power. In other words, if company A demonstrates anticompetitive conduct to establish a monopoly or dominant power in a market then it is subject to prohibition, in the case of the US and regulation, in the case of the EU. Hence the need for a proper definition of market.

In response to the question concerning the inevitability of these monopolies in the internet industry, it appears as if monopolistic tendencies and dominant firms, are in fact, characteristic of the industry due to their efficiency advantage through economies of scale and superior technology. Yet determining how much of the world is monopolistic rather than perfectly competitive is tricky, especially in the Internet industry. Thus, the answer to question (i) and question (ii) concerning price and competition ultimately depends on how one defines the market.

Defining a market in the Internet industry

"The appropriate definition of the relevant market is a necessary precondition for any judgment concerning allegedly anti-competitive behaviour (…), since, before an abuse of a dominant position is ascertained, it is necessary to establish the existence of a dominant position in a given market, which presupposes that such a market has already been defined." (Case T-61/99 Adriatica di Navigazione SpA v Commission, para 27). This is where competition law or antitrust policy comes into play. If the core task of competition law is to "promote competition" of various market participants, then the enforcement of competition law depends on a proper definition of the market (Liu, 2010).

Defining a market in the communication technologies industry is increasingly difficult with the development of the Internet because the degree of competition increases with the interconnectedness. This lends itself to a binary market and an asymmetrical price structure. Consider two examples demonstrating that which is problematic with two traditional methods of monopoly analysis in the Internet industry: market concentration and price ratio. First, in the early 2000s Microsoft dominated the software for

[4] Facebook illustrates this dilemma quite well. It effectively has a monopoly on the flow of information between citizens. By using the internet to manipulate the flow of real news, Facebook is a major source of news, knowledge and reality.

computing operating with its triple monopoly on operating systems, major applications and the browser. Yet given the nature of the market for all computer software and services as broadly defined rather than narrowly defined, it's mere 16% share of the market in 2000 did not suffice the criticism (Barber, 2006). Therefore, if one were to measure the degree of monopoly power based on the traditional standards, such as the concentration ratio indicator - i.e. market share - then Microsoft was irrelevant. Another relevant and more recent example is the case of Amazon. As previously explained, Amazon completely revolutionized the future of commerce. Ask any economist and he or she would agree that Amazon dominates e-commerce, powers a large part of the internet through its cloud computing service and as of recently, just became the second company to be worth a trillion dollars. However, if one were to determine monopoly solely in terms of market concentration or pricing then Amazon is off the radar. By taking advantage of economies of scale it provides consumers with various innovative products within distinct markets and at much lower prices. Yet Amazon only makes up a quarter of the retail industry and its prices are similar to those of Walmart. If it is a dominant firm is it a monopoly? If the market is measured according to traditional forms like market concentration or price ratio, then companies like Amazon that maximize *economies of scale* or Microsoft that exert control over various markets due to *superior technology* do not fit the traditional methods of measuring a monopoly. Therefore, neither Microsoft nor Amazon could be considered monopolies.

As one can see, if the market is narrowly defined, then the market share will appear higher however if it is broadly defined such as "computer software and services" or "retail" then the market share will appear much smaller and the effect of the merger on competition would be negligible. Therefore, not anticompetitive. Thus, both consumer welfare (price) and market share only reveal part of the story. This is challenging to regulators and significant to us because it's what determines government intervention or lack thereof. Government intervention requires time. (Taylor) Yet the nature of the internet as unmediated, fast and unlimited, on one hand, and the rapid emergence of these companies, on the other hand, lends itself to a constant sense of ambiguity and uncertainty surrounding their position in the industry.

To sum it up, despite having a structural power that allows them to exercise increasing control over much of the economy, defining the relevant market when assessing anti-competitive conduct is essential to proving a violation of antitrust (competition) laws.

IV. How do the US and EU legal systems deal with antitrust (competition) law?

As a wider debate about the monopolies in the Internet industry revealed, the real issue is technical: How does one measure anticompetitive conduct to obtain a monopoly or dominant position; how does one distinguish this from productive efforts; and ultimately, how does one check monopolization or abuse of dominant position if the relevant market is uncertain.

Why compare?

Whereas the previous sections have laid out the theoretical foundation for approaching the Internet industry - serving as a backdrop for law in action - this section sets out how the different institutional and historical environments in which the US Antitrust Law and EU Competition Law have developed and how this has resulted in persisting differences in their approach to specific issues (Elhauge & Damien Geradin, 2011)[5]. First, by specific law issues, the paper refers to cartels and horizontal cooperation, vertical restraints, mergers, state action, the interplay between competition law and intellectual property rights, and monopolization and abuse of dominant position; however, it will limit itself to the latter of the five points of conflict. And second, problems in the Internet industry vary and could include: (i) the denial of access; (ii) tying and bundling; (iii) competitive distortions to differences in data protection law; and (iv) market power abuse (Roosebeke, 2016). Bearing these factors in mind, the focus will be on anticompetitive conduct and why there are differences in general standards for proving monopolization in the case of US Antitrust law and abuse of dominance under EC Competition law.

What are the differences? And why do they exist?

Although both systems are based on (1) the principle that free markets are best; (2) competition will lead to innovation, development of new products, and more efficient processes to deliver goods and services; (3) and that the role of the state is only to guarantee that the market operates effectively, there exist salient differences in historical and economic circumstance, thus significant differences in approaches to single-firm monopoly (US) or dominance (EU).

In terms of historical differences, the US Antitrust[6] law is much older. It is the first to introduce a coherent competition system, thus serving as the source of modern competition law. Rooted in the particular historical and economic circumstance of the 19th century, the emergence of the US Antitrust law responds to a period of "robber barons[7] and swashbuckling Presidents", in which large trusts by American companies were the biggest threat to competition. "If we will not endure a king as a political power we should not endure a king over the production, transportation, and sale of any of the necessaries of life". With this Senator John Sherman set the standard for American antitrust laws. Since 1890 and the enactment of the Sherman Act, "antitrust laws" have sought to regulate the growth and expansion of trusts through which businesses - like

[6] "Trust" at the time referred to integrated groups of companies, used to denote big business. Bear in mind the sudden consolidation of small short-line railroads into giant systems at the time of the Sherman Act in the 1880s and 1890s.

[7] The term "robber barons" refers to the 19th century American businessmen and German feudal lords that got rich through dodgy methods. Examples include Cornelius Vanderbuilt or John D. Rockefeller. Take historian T.J. Stiles' description for example: "it conjures up visions of titanic monopolists who crushed competitors, rigged markets, and corrupted government. In their greed and power, legend has it, they held sway over a helpless democracy."

Standard oil in 1911[8] or Microsoft in 2001 - operate their activities. In doing so, these antitrust laws allow the government to regulate agreements that *restrain trade* or harm competition, extending to mergers and acquisitions (i.e. Google – Yahoo proposed advertising deal in 2008) as well as *conduct to maintain a monopoly* (i.e. Northern Securities Co. v. United States in 1904, United States v. Aluminum Company of America in 1945 or AT&T in 1982) (Hawke & Middleton, 2011) (Valentine, 1996).

Therefore, the main goal was not so much the protection of the consumer as it was the prohibition of the use of power to control the marketplace. Two significant dates to bear in mind when examining the evolution of US antitrust law: 1914 and 1996. In 1914, Congress enacted both the Clayton Act and the Federal Trade Commission Act (FTC), adding more specific antitrust laws concerning price discrimination and "unfair methods of competition". In between 1914 and 1996, came a fundamental shift in how the US perceived corporate dominance. With the rethinking of the economy by the "Chicago School" in the 1970s, the danger of monopolies was perceived in terms of price. Since 1996 and the New Federal Communications Act, the oversight and regulation were left to the market, disempowering the state and essentially contributing to the private sector monopoly. This has set the stage for the persistent dominance of US digital platforms on the basis of efficiency grounds both at home and abroad (Barber, 2006).

The EU Competition law, on the other hand, developed in the aftermath of the Second World War with the adoption of the European Coal and Steel (ECSC) Treaty in 1951 followed by the establishment of the European Economic Community (EEC) in 1957. In it, the goal of EU Competition policy has evolved as national and regional decision makers have sought to create a common "European" market, protect market economies and develop and integrate democratic political systems. Thus, the competition provisions within these two treaties favor deep economic integration by prohibiting cartels, banning the "misuse" of economic power, establishing a system of merger control and "undistorted competition" (Elhauge & Damien Geradin, 2011). European governments turned to Competition policy to "encourage economic revival, reduce class antagonisms and achieve political acceptance of postwar hardships" (Gerber D. J., 2004, pág. 323). In doing so, EU competition law represents an "administrative control model" designed to prevent economic actors with dominant power from using that power to harm the economic process (Gerber D. J., 2004, págs. 321-322). It functions as an administrative model by attributing primary responsibility to the European Commission to develop and enforce the guiding rules and principles of the competition doctrine. It is the European Commission and the interpretation by the European Court of Justice and Court of First Instance that have played a major role in caselaw rather than

[8] In the Standard Oil case, the Supreme Court of the United States observed: "The Anti-trust Act of 1890 was enacted in the light of the then existing practical conception of the law against restraint of trade, and the intent of Congress was not to restrain the right to make and enforce contracts, whether resulting from combination or otherwise, which do not unduly restrain inter-state of foreign commerce, but to protect that commerce from contracts or combinations by methods, whether old or new which would constitute an interference with, or an undue restraint upon it". By approving the breakup of the Standard Oil companies the SCUS added the "rule of reason" in which not all big companies nor monopolies are evil. It is up to the Court to decide that not the executive branch.

private enforcement, as is the case in the US[9]. However, EU competition law has come a long way since 1951. It favors market integration thus placing a greater concern on how firms with a dominant position behave. It does so by regulating the conduct of dominant firms with a tendency to intervene more willingly than its neighbors across the Atlantic.

Both the US Antitrust law – the Sherman Act of 1890, the Clayton Act of 1914 and the FTC of 1914 – and the centralized EU Competition policy – Article 102 to Article 109 – reveal more than law yet the political consensus at the time, ultimately serving as socio-political statements on the society (Sullivan, 1991, pág. 3). Whereas the US Antitrust laws were designed to protect the core republican[10] values of free enterprise in America, the EU Competition policy was designed to create a regional market by protecting competition.

How does the US Antitrust Law check "monopolization"?

As previously addressed, the Sherman Act was enacted to tackle wrongful conduct and monopolization, ultimately providing us with the standards by which the FCC accesses a monopoly and the Department of Justice (DOJ) enforces it. Whereas Section 1 refers to restraints on trade, Section 2 refers to monopolies.

> Section 1: "Every contract, combination in the form of trust or otherwise, or conspiracy, in *restraint of trade* or commerce among the several States, or with foreign nations, is declared to be illegal."[11]
>
> Section 2: "Every person who shall *monopolize, or attempt to monopolize*, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States or with foreign nations, shall be deemed guilty of a felony…"[12]. In other words, the two constitutive elements are monopoly power and anticompetitive or exclusionary conduct.

Thus section 1 and section 2 – prohibiting both anticompetitive conduct and unilateral conduct that monopolizes or attempts to monopolize – serve as the primary source of US antitrust law. According to US caselaw, only those restraints of trade that are deemed unreasonable violate Section 1 (rule of reason) and only those monopolies that

[9] The difference in underlying concerns is intensified with the different structure of the two enforcement systems. First, whereas in the US public enforcement is carried out by both the FCC (regulate) and the DOJ (enforce) with criminal and civil penalties, in the EU, all courts must abide by article 101 and 102, therefore EU competition law overrides national law when accessing a violation[9]. And secondly, whereas private enforcement makes up nearly 90% of the cases in the US it is nearly non-existent in the EU. See United States v. Microsoft Corp., 253 F.3d 34 (D.C. Cir. 2001) (en banc) (per curiam); Case T-201/04, Microsoft Corp. v. Comm'n, 2007 E.C.R. II-3601.

[10] Republicanism here required free competition and the opportunity for Americans to build their own businesses.

[11] The United States v. Addyston Pipe & Steel Co. 1898, is the most significant interpretation of Section 1 because it led to the birth of the "rule of reason": "No conventional restraint of trade can be enforced unless the covenant embodying it is merely ancillary to the main purpose of a lawful contract, and necessary to protect the covenantee in the enjoyment of the legitimate fruits of the contract or to protect him from the dangers of an unjust use of those fruits by the other part". In other words, the only restraints of trade that violate the Sherman Act are those that are deemed unreasonable…

[12] Felony implies criminal penalty.

attempt at monopolization violate Section 2. Once again, this is significant to the Internet industry because a company like Microsoft or Google can attain a monopoly position through legitimate means on the basis of efficiency grounds: product superiority, technology superiority and historical accident. This libertarian/neo-liberal line of thought, rooted in republican values of free enterprise and "Chicago school"/supply-side economics, perceives the markets as self-regulating and inherently competitive. That is to say, if monopolies are inherently competitive and good for the consumer, then it is up to the market to decide the winners and losers. In this sense the basic premise stems from an understanding of the maximization of consumer welfare – total welfare – as the supreme good.

How does the EC Competition Law prevent "abuse of dominance"?

The EU's competition policy, much like the US counterpart, ensures that competition is not hindered by anticompetitive practices. Consider its primary centralized competition provisions: Art. 101 and 102 for the "abuse of dominance" doctrine parallel to Section 1 and Section 2 of the Sherman Act (Osterud).

> First, Art. 101 (ex Art. 81 EC, ex Art. 85 EC) prohibits "all agreements between *undertakings*, decisions by associations of undertakings and concerted practices which may affect trade between member States and which have as their object or effect the prevention, restriction or distortion of competition within the Common Market or which have this effect"[13].
>
> Second, Art. 102 (ex. Art. 82 EC, ex Art. 86 EC): prohibits "abuse of a *dominant position* within the common market", referring to both single firm and/or collective abuses of a dominant position[14].

Art. 102 like Section 1 of the Sherman Act share the same standards when assessing a monopoly: (1) monopoly power to establish a dominant position and (2) anticompetitive or abusive conduct[15]. However, whereas Section 2 of the Sherman Act "prohibits monopolization and attempts to monopolize", Article 102 "prohibits single firm or collective abuses of a dominant position". Different from Section 2 of the Sherman Act, Article 102 does not prohibit monopolies or market dominance expressly, rather it

[13] In this case, market power is a threat to consumer welfare, because it allows "undertakings" to limit output and raise prices. Market power unlike dominance is an economic concept, thus it is a matter of degree. Therefore, relevant factors to examine when accessing dominance are: market shares, price elasticity of demand, profitability measurement, barriers to entry, barriers to expansion, structural factors and behavioral factors.

[14] There are a few key points to take away regarding application of Art.102: prohibits specific forms of unilateral market behavior, applies only to "undertakings" with a dominant market position, applies to the extent that the conduct affects trade between Member States and applies only to abusive conduct.

[15] The EU approach is more hands on. Consider the Google case for example. In 2012 the European Commission was concerned that Google was using the dominance of its search engine to promote specialized search services. In order to address this issue without hindering their innovation, Google promised to display three links to rival services in its search results. Other companies like Google have been forced to make significant concessions in order to *prevent* dominance abuse and restore competition (Italianer, 2014).

expressly prohibits “an abuse of a dominant position” and implicitly permits the maintenance of that dominant position. The “abuse” concept thus serves as a built in “rule of reason” similar to the effect of the *per se* rule of reason in the US caselaw.

Final remarks

The basic principle at stake here is whether the state should “prohibit” or “regulate” the anticompetitive conduct. The two prominent principles that govern how the US and the EU approach anti-competitive conduct is the principle of “prohibition” and the “control of abuse” principle. Whereas the US best demonstrates the prohibition principle by restricting business practices and the acquisition of monopoly power, the EU illustrates the regulatory principle by permitting restrictive business practices or “abuse of dominance” with sufficient regulation. Thus, the US prefers prohibition over regulation because it seeks free competition at any cost, and the EU prefers regulation over prohibition because it favors “economic and technical progress”. In the first case, consider the Court’s merger decision in the 1962 Brown Shoe Co. v. United States case: “It is competition, not competitors, which the Sherman Act protects”. One can interpret this many ways, yet US caselaw has interpreted it as one in which antitrust laws balance and burden a potential monopoly by weighing it according to whether or not it provides greater efficiency, lower prices, and better products – thus maximizing allocative efficiency and aggregate wealth of the nation (sound familiar?). In the second case, consider the exception to Article 102 of the TFEU: “any concerted practice (…), which contributes to improving the production or distribution of goods or to promoting *technical or economic progress*, while allowing consumers a fair share of the resulting benefit”. In other words, whereas the US approach reflects its enduring legacies of Chicago school economic ideology in which maximizing consumer wealth is the objective, the EU demonstrates its ongoing desire for deep economic integration in which a Single European Market is the objective through economic revival.

On closer examination: Microsoft case study US v EU

Returning to the Microsoft case, it effectively illustrates the shared substantive standards of the two legal systems – i.e. market power and anticompetitive conduct – yet divergent results. Both the US Court of Appeals and the European Commission based Microsoft’s market power on its market share and barriers of entry in the software market (Intel-compatible computers): “the dominant position is characterized by market shares that have remained very high at least since 1996, and by the presence of very high barriers to entry” (Hildebrand, 2009, pág. 390). As far as the second constitutive element – anticompetitive conduct – is concerned: The US Appellate Court found that Microsoft violated the Sherman Act by taking part in agreements with hardware manufactures, internet access providers and software manufacturers; integrating Internet Explorer in Windows; and subverting Java technologies. Meanwhile, the European Commission, accessed Microsoft’s “abuse of dominance” by its exclusionary conduct and stifling competition. That is, Microsoft had infringed Article 102 – abusing dominant position – by engaging in two separate types of anticompetitive conduct: (i) tying Windows Media Player with Microsoft Windows OS (allowing Microsoft to eventually foreclose the media player market) and (ii) refusing to supply the server market (Microsoft Corp v. Comm'n, 2007). In this case, the undertaking had a dominant position, the tying and tied products were two separate products, consumers had to choose the tied product in order to get the tying product and last but not least, the abusive practice led to a weakening of competition. Whereas the US Antitrust law case ended in a settlement the EU case ended in a series of decisions with harsh remedial measures, including a sum of over EUR 800 million in fines (United States v. Microsoft Corp, 2001)[16].

As one can see, although both legal systems pursue the same objective: protect competition and benefit consumers, the US government's vision of its own role depends on the liberal notion of market capitalism; whereas the EU's vision favors a more hands on approach. The US antitrust law is concerned with protecting the competitive process while the EU is concerned with protecting the consumers through competition. The European Commission's analysis of the Microsoft case according to the potential threat to consumers confirms that Article 102 seeks to protect competition rather than competitors. However, this distinction in approach between the two legal systems is blurred in the onset of digital technologies and their tendency towards natural monopolies – market dominance through economies of scale.

To elaborate: as we have seen in the previous sections, both of these approaches are problematic in the face of the Internet industry. The internet industry provides new dimensions to US Antitrust law and EU Competition policy, subsequently contributing to a new form of antitrust (competition) relationship. One in which monopolies are not always bad. If a monopoly has superior technology or economies of scale (US) or contributes to economic and technological progress at the benefit of the consumer (EU), then it does not necessarily violate the Sherman Act[17] or Article 102 TFEU. Consider the "per se" (US) violation as a rule of reason in comparison with the "abuse" concept (EU) as a rule of reason. Whereas with the "per se" violation, free competition is paramount - the company's benefit and burden is balanced based on competition – with the "abuse" concept, the efficient allocation of community resources is prioritized. That is to say: competition versus efficient allocation (Grendell, 1980). In both cases and parallel to the persistent dominance of digital platforms like FAAM in the case of the US of GAFA in the case of the EU, both legal systems and caselaw demonstrate a clear orientation on the consumer welfare standard, if not in the past then at least in the last few years. One in which company's like Apple or Google that benefit the consumer without engaging in wrongful conduct to maintain a monopoly (US) or abuse its dominant position (EU) will not violate the law[18]. Consider a thought experiment. Say a company like Google wields market power and prices increases, on one hand, yet also results in a more efficient use of resources, on the other hand, this company would be allowed not so

[16] See United States v. Microsoft Corp., 253 F.3d 34 (D.C. Cir. 2001) (en banc) (per curiam); Case T-201/04, Microsoft Corp. v. Comm'n, 2007 E.C.R. II-3601.

[17] Remember in the case of US caselaw, only if monopoly power is used to maintain a dominant position or to exclude competition from the market can a monopoly be considered anticompetitive thus a violation of the Sherman Act.

[18] A natural monopoly exists when the economies of scale are so large that one firm can supply the entire market at a lower average total cost tan can two or more firms.

much because it is neither a monopoly nor dominates a market yet rather because it increases the aggregate wealth of the nation by maximizing allocative efficiency.

There are benefits and shortcomings to both approaches: neither the US nor the EU have found the correct interplay among the competing commercial, legal and technological forces at play in the Internet industry. However, by providing the historical context the essay has intended to pose their problems as they the decision makers at the time saw them so as to highlight the evolution of Antitrust (competition) law as a history of a continuously changing problem whose solution is changing with it (Collingwood, 1939, p. 62). Therefore, in the similar way the Antitrust (competition) law was deeply affected by the economic and political situation within which each legal system developed, the current policy has been challenged by the dual nature of the Internet industry and the challenges it presents as well as the opportunities it affords. In the comparison and case study previously examined two questions may be distinguished: First, (1) if change and disruptive innovation are inherent to the very nature of the Internet, should the law follow suit and act as a referee (US) or regulator (EU)? (Schapiro, 2012) Second, (2) will the two systems become increasingly similar thus converge as they allow natural monopolies[19] to exist to benefit the consumer welfare and efficient allocation of resources?(Davie, 2014).

V. Conclusions

It appears the internet is open and belongs to no one, yet in reality it is subject to concentrated tech firms that continue to dominate content, platform and hardware. This paper has intended to highlight the importance in preventing any one firm from deciding the future, however this is no easy feat considering both: (1) the nature of the industry as ambiguous and uncertain and (2) the subsequent legal complexities in defining the relevant market to assess and address their dominance without running the risk of hindering it.

So far, we have considered the substantive aspects of the complexities of the Internet industry: What a monopoly is and how different legal systems check a company's monopoly power or abuse of dominance (prohibition vs regulation); yet, very little has been said beyond the constraints of antitrust (competition) law. This is of significance to us because the sophisticated communications systems by which capital does its business raise issues of security in terms of development, ownership, control, access and use. In other words, not only do we find ourselves confronted with the dilemma of monopoly and abuse of dominating position, but we find ourselves in a technocratic social structure in which the power to control "who will know" and "what will be known" is left in the hands of a select few firms. There are two approaches to this argument -- (1) progressives and (2) skeptics. Whereas progressives tend to view succession as linear, that is Big Tech as a liberating force in which individuals are emancipated, there are those, the latter of the two, that view the "frightful five" as having imposed its will on

[19] The stirring factor here is that of economic efficiency or individual liberty and limited government.

the public without their permission nor their input, making the world less private, less creative and above all, less human (Foer, 2017). Thus, in the context of the Internet industry, issues of access and control of knowledge extend beyond the competition debate ultimately influencing our culture and potentially jeopardizing the normative power of our democracy to provide a space for pluralism and liberty.

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