

# REGULATION OF THE DIGITAL MARKET IN POST-COVID TIMES

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**Abstract** During the COVID-19 pandemic, the importance of e-business and the digital economy came to the fore. It is certain that the growth of the digital economy will continue in post-COVID times. This raises many questions and challenges, one of which is especially important – the tendency of monopolisation in the digital market and possible regulation related to it. In this paper, the authors have dealt with this topic by presenting it as paradox: digital giants or ‘Big Tech’, created as start-ups on the waves of a competitive market of equal opportunities, have grown with the general support of consumers because their platforms offer connectivity and a more comfortable and interesting life full of creativity. In the meantime, they have become unstoppable monopolists making users/consumers dependent and subordinate with their privacy endangered. In the paper, the authors reveal the reasons for the monopolisation of the digital market as well as related problems faced by regulators. In addition, they analysed some of the approaches that individual countries are trying to apply, and suggest a possible scenario for how to reach quality and stable solutions for regulation at the global level.

**Keywords:**

digital market,  
digital platforms,  
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data,  
COVID-19,  
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## 1 Introduction

***Paradox:** Digital giants, or 'Big Tech', created as start-ups on the waves of a competitive market of equal opportunities, have grown with the general support of consumers because their platforms offer connectivity and a more comfortable and interesting life full of creativity. In the meantime, they have become unstoppable monopolists making users/consumers dependent and subordinate with their privacy endangered.*

***The key question:** Why does the digital market tend towards monopolisation and how can the regulatory authorities successfully prevail upon digital giants?*

**Digital** giants tend to be **monopolies**. They **have** become too big and their desire **for profit** and their size jeopardises the normal functioning of the market. Is there a limit and can the market explode? These companies are **more powerful** than the state and institutions. For the first time in the history of human civilization, there are now companies whose market capitalisation is more than USD 1,000 billion (Amazon and Apple). Therefore, there are two points to consider: 1) these companies continue to grow; thus, during the time of the COVID-19 crisis, they continued to record growth. Some of them recorded even higher growth than they had prior to the pandemic; 2) these companies have achieved success and their position in just a few years. **What does economic science say and does it offer any answers?**

By dealing with the two dimensions of this paradox, the authors of this study tried to examine what kind of answers are offered by economics and whether they are adequate. They begin by analysing how participants behave in the digital market and why it is prone to monopolisation, and how and why digital giants are spreading uncontrollably. The authors then elaborate and discuss the dominant problems in regulation, and in the guidelines and recommendations section, make suggestions on what to supplement and how in terms of competitiveness and consumer protection.

## 2 Why does the digital market tend towards monopolisation?

The digital market has the resources to be an ideal market, at least in the sense that it was envisioned in the assumptions in the traditional analysis. Unfortunately, this is not the case in practice. Paradoxically, the companies that were supposed to make the world a better place by means of all the benefits they were to bring, are starting to seriously threaten the market, so accusations are being made that their power is causing damage, and there are an increasing number of warnings to this effect. These companies are markets in themselves, because they are infrastructure providers – platforms for the digital economy, and at the same time they are sellers in those markets. Many of their services are free of charge. At the same time, the estimate that digital giants will increase their power by up to three-fold in the next 10 years (Economist, 2018) gives rise to additional concerns. The network produces its effect, size creates size. As previously emphasised, divisible digital products and the economics of their creation, distribution and consumption impose a different nature of the market, where the relationship between supply and demand is no longer important and the price policy does not arise from that relationship. In this sense, Mason (2015) especially emphasises Romer's (1990) position, confirming that as soon as the economy begins to consist of divisible IT goods, imperfect competition becomes the norm and the IT market does not strive for perfect competition but rather monopolisation, **in which monopolies are not just smart tactics to increase profits: this is the only way the industry can function.**

There is no doubt that the DE has completely reset the theory of competition. Cost and optimisation in production costs are not a significant factor of competitiveness in the 'economy of free things', as the DE is often called. Although the internet is expected to bring positive trends in terms of competitiveness – it expands the size of the market and improves the position of products compared to standard substitutes – most trends are negative according to Wang and Zang (2015). These findings suggest that, instead of increasing industry competitiveness, use of the internet results in less competitive industry structures. So, instead of competition, the internet creates a system of winning companies. The 'winner-takes-all' theory implies that the internet helps the big companies to take everything to the detriment of small and weaker competitors, and this leads to a less competitive market. In the initial phase of using the internet, the competition can be fierce with a large number

of participants, but later several large ones, or only one, crystallise and the market space for others narrows dramatically.

Shapiro and Varian (1999) singled out factors – recommendations that generate competitive strength in the digital market. They emphasise that there is a sense that the world is getting smaller and that new technologies are expanding dramatically. Entrepreneurs capable of attracting an unprecedented amount of business are building huge empires; governments are urging and appealing for these new monopolists to be held accountable under antitrust laws. In order to survive in such an environment, they recommend several principles that would apply in the long run. In essence, they advise that the economic benefits of the system of closed technologies (lock-in) should be exhausted, i.e. the building of such a powerful and technologically complete product that it does not pay for customers to switch to competitors. Additionally, standards should be created and efforts should be made to make them global, while at the same time protecting intellectual property rights. Shapiro and Varian advise that competitors should be perceived as partners/collaborators on open-platform projects, but at the same time they should be innovative and fast to make changes, thereby promoting network externalities, i.e. expand into neighbouring markets if users gain additional benefits from doing so.

Although these principles were known to some extent earlier in competition theory, they gained their enormous power in the digital environment in the form of elaborated and complementary strategies to which the successful adhered. The behaviour of the digital giants and the strategies they apply show that even in the almost 20 years since these golden rules of Shapiro and Varian were formulated, not much has changed. It can be said that these recommendations were in fact instructions for acquiring and maintaining a monopoly.

What do all digital giants have in common? Following the history of the development and business activity of digital giants: Google, Amazon, Apple, FB, Microsoft and Alibaba, it can be seen that they strictly adhered to the recommendations given to them by Shapiro and Varian back in 1999. These companies ***were created as start-ups***. Additionally, in almost every case, it is stated that a garage was an incubator for the development of a business idea. Although it was not always the case, the statement “We started in a garage” became a cult

expression of the ‘business romanticism’ of the modern age. ***The role and proximity of universities*** is an indispensable part of these success stories. The companies ***had their ups and downs***, and almost by definition were offered up for sale after their initial success. The ***vision, perseverance and initiative*** of the founders and owners gave them special strength and guaranteed long-term growth. Almost all of them, after the affirmation and market expansion of capital ideas and solutions, had ***a phase of expansion through upgrading, inclusion of similar services, products and solutions***. When they succeed and become big, ***they strive for a monopoly, they buy up potential competition, other start-ups***, all ideas, initiatives and businesses that aspire to success (car production, retail, food, entertainment, etc.) (Lazović & Djuričković, 2018).

Similar stories are recorded by eBay, Netflix, and others. The fact that these companies are growing uncontrollably, according to the ‘winner-takes-all’ principle becomes a danger to the market structure and competition rules, not only in the sphere of the DE. How can companies – winners who take everything – be prevented from monopolising the market, especially if consumers are satisfied? To make a final judgment and obtain a possible answer, a few more observations on this topic will be helpful.

1. The aggressive strategy of these companies in terms of purchasing start-up solutions is very noticeable. They do this for two reasons: a) to expand and increase their business and power; and b) to prevent future competition, i.e. to save themselves from so-called disruptive innovation. What is alarming is that by buying all the small companies, successful, digital giants are stopping Schumpeter’s ‘creative destruction’. This is only valid at a low level; large companies deal with the problem of disruptive technology. Given their size and power, no one can creatively destroy large companies. Except, perhaps, themselves?

2. The question for discussion is: where is the limit and can this bubble burst, as happened with the dot.com bubble in 1999? It is sufficient for only one of the giants to give up and everyone will fall, because the belief is more in the business pattern itself than in the company. And what is a company here but a business pattern? Can this business pattern survive then, or rather will it be allowed to survive? The business pattern coded by Shapiro and Varian in 1999, which was explained earlier in this study, proved insufficient despite the success its application provided to the

digital giants. The practice and challenges of online business also required new flexible strategies on a daily basis.

Nevertheless, there is a real danger that digital monopolies will collapse, because their growth and expansion – based on the neoliberal model – must have their limits (Foroohar, 2019). Have they overdone their expansion and power? Yes, they have! However, their possible collapse is not a matter for rejoice because, given their size, the bankruptcies would cause tsunamis on the global economic scene. Due to the specificity of the product (or service), the old mechanisms of regulation and protection of competitiveness cannot be effective. The alarm bells are already sounding.

3. Contrary to what was expected, as previously stated in the paradox, these companies are becoming BAADD, which means: Big, Anti-competitive, Addictive, and Destructive to Democracy. Their size and impact are becoming a problem for the functioning of the market (Smith, 2018).

### **3 How to introduce regulation of digital giants – will (and can) the ‘empire strike back’?**

With the growth in the DE, the regulation of the digital market is becoming an increasingly open and complex issue from year to year. The issue particularly escalated in 2018 and 2019 through the opening of a whole series of disputes both at state and global levels, with many unknowns present.

In the function of elaborating this paradox, below the authors have opened up a discussion, introducing problems in the regulation of the digital market (especially giants/digital platforms), and conclude by describing possible solutions and a set of recommendations. The authors turned to reference papers on this topic – EU regulation and individual country regulations (the USA, the UK, France, and Germany) – as well as analyses of five current reports, on which the authors focus in addressing the main issues of future policy in this area (Gunnar, 2019).

Frequent attempts have been made to reduce the issue of digital market regulation in terms of the problems of the prevention of new acquisitions, data transferability and interoperability. However, as previously mentioned, there is a much broader range of challenges and issues related to this topic. In this study, the authors conditionally and roughly grouped these challenges and issue into four categories, as follows: 1. Relevant market (concept and boundaries), concentration and assessment of the market power of companies; 2. Access to and management of data as a key market resource; 3. The (mis)use of technology to the detriment of competitiveness; and 4. The status, position and influence of regulators.

Although the topics and answers to these questions are intertwined due to their complexity, in order to point out the essence, the authors have conditionally differentiated them in this analysis.

### **3.1 The relevant market (concept and boundaries) and the concentration and assessment of the market power of companies**

The problem of determining the relevant market stems from the fact that digital platforms are intertwined, interconnected, multi-layered markets that change rapidly with powerful network effects. Therefore, it is **complicated to define** the market and analyse market power, which means that it is quite difficult to determine the intervention thresholds and the right policy to prevent anti-competitive behaviour. Another problem is that the main platforms are **constantly revising the boundaries** of their activities and trying to enter related areas. Rapid platform mutation and the multiplication of platforms by major operators reduce the validity of the static platform typology and require the combined effects of different platforms to be taken into account (Strowel & Wergote, 2018).

In this context, it is necessary to bear in mind that digital companies maintain their powerful platforms, services and applications as technologies that are closed to others, and although they allow entry, it is under the condition that their competitiveness cannot be questioned. In this context, the expression of interaction between markets is important for the regulation of monopolies (Coyle, 2017). One of the main concerns is that the characteristics of digital markets mean that major players enjoy **lasting market power** (Gunnar, 2019) because they exhibit strong

network effects, provide users with free services and mediation, and rely on big data as a key raw material to supply their algorithms.

Thus, formal evidence that a firm has market power based on traditional instruments for defining the relevant market is disputable in the context of digital services from a practical and an economic point of view, ... even attempts to modify and supplement some standard models require huge amounts of data, which is often unfeasible. Traditional market power assessment mechanisms, such as market shares, often do not provide sufficient evidence in digital markets because they are characterised by strong tendencies towards concentration due to direct and indirect network effects (Krämer & Wohlfarth, 2018).

How, then, can market power be estimated in the new conditions, so that its abuse can be assessed on that basis and so that it is possible to assess which economic theory to apply in the damage assessment. Practice shows that regulators very often lose disputes precisely because they cannot substantiate all accusations, because this issue is very demanding and complex<sup>1</sup>. Competitiveness and consumer protection should be the essence of digital market regulation policy, i.e. the two main dilemmas that regulators need to check are: 1) Is competitiveness threatened by expansion and enormous growth (right of equal opportunities)? and 2) Is harm done to the consumer?

Regulatory practice shows that when protecting competitiveness (in the case of a merger go-ahead), it is better to rely on the assessment of the value rather than on the revenues of the companies being acquired. Additionally, in some cases, regulators rely on the doctrine of potential competitiveness, i.e. an assessment of the effects of competitiveness over a period of at least five years. Experiences are different and vary from country to country and from regulator to regulator. Regardless of which strategy has been applied, these strategies have proved to be useful, albeit also incomplete and vague.

How do regulators protect consumers and how is consumer benefit measured – is it only through price, quality, and choice, or there are additional mechanisms?

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<sup>1</sup> Example of the German Federal Cartel Office vs. Facebook lawsuit, February 2019, which the German Court of Appeal rejected as unfounded (Lomas, 2019).



All of this requires the **power and speed of data accumulation on network platforms** to be better taken into account. Strowel and Vergote (2018) point out that competition authorities still neglect the market power of companies that collect data in exchange for free services or that earn huge revenues from one side of the market (e.g. from advertisers) to subsidise users' free access to online content on the other side of the market.

The previous elaboration shows us that concentration assessments in the digital market require new tools, analyses, mechanisms and instruments of regulation. Economics is expected to offer (as quickly as possible) adequate answers to these challenges.

### **3.2 Access and management of data as a key resource of the digital market**

As previously stated, the market power and strength of the network consist of user data that enable the personalisation of offers and targeted marketing. Users are bound by the data and depend on the companies/bidders, and the 'ownership of this data' (or the right to manage it) also leads these companies into anti-competitive waters. Have these companies really permanently 'captured the market'? The solution is seemingly simple – they need to be forced to share data with competitors, while users must be able to transfer their data to others. This is a fundamental issue of ensuring competitiveness through a level playing field for new entrants to digital markets. Their successful entry according to this formula implies that the new manufacturer immediately has access to user data created by the dominant manufacturer/platform on the market. Is this feasible, and how can the conditions for this be provided?

The quality of the solution/ideas (products and services) is no guarantee of safe entry and success, because there are two limitations: 1) The big companies have already covered everything, so even if someone dares to enter the market, the question is how to return high investments (fixed investments) because all the profits have already been squeezed out of consumers, and the price to be offered for products and services must be zero for it to be competitive; 2) a company that dominates the market and that has already collected data is reluctant to share it with others. The question is: who owns the data? If it is the users, then they should have

some compensation because their data can be used, but their bargaining power as individuals is weak (Coyle, 2017).

The possession of personal and commercial data is a major force in the digital marketplace, and the basic issue of competitiveness is how to enable others to use this and under which conditions to allow data migration and mobility when users choose to switch to another platform.

Within the EU, there has been an active policy on this issue for a long time. However, everything has to be done much faster. Strouel and Vergote (2018) conclude that it is important for the European authorities to intervene before too many different provisions on access or data protection are enacted at the national level, which makes it even more difficult to move around this complex field. In addition, it seems vital that the European Commission should establish a steering committee to monitor competition and possibly different initiatives around which very different data problems arise (occurring in the areas of privacy, intellectual property, competition, telecommunications, international trade, etc.), which are dealt with by various authorities and directorates-general within the European Commission (the DGs for growth, competition, integration, trade, etc.).

### **3.3 The (mis)use of technologies – network effects – to the detriment of competition**

Thanks to innovations and technological solutions, participants in the digital market frequently come up with improved business patterns, which ultimately result in anti-competitive behaviour. The authors of this study have listed some of these cases as problems with which regulators deal. Although aware that there are, and will be, many more problems, below are just a few of them to highlight the problems of regulation of this phenomenon as well as the fact that due to their diversity, a single regulation matrix cannot be defined.

**Self-preferencing** is a model that emerged based on the philosophy of preferred technologies now in the context of a platform vertically tied to preferred users and all to the detriment of third parties using the same on the platform. In this case, regulators deal with the big problem of how to prove a potential exclusion.

**Increased competition through partner platforms.** By connecting and global cooperation, these platforms close the space for local competition, except for their partners, which also distorts equal market competition (Strowel & Vergote, 2018). Regulators, albeit with a delay, subsequently notice a whole set of abuses/restrictions that can only happen online.

### **3.4 Status and positioning of regulators**

The issue of the status and positioning of regulators focuses on dilemmas such as: should there be regulators at the national or international/global level, and should they be special bodies only in charge of regulating the digital market? The search for the best solution is mainly determined by two dimensions of conflicting interests. The first dimension of the conflict is in the relationship between creativity/innovativeness and bureaucracy (digital platform vs. the regulator). It is quite clear why the second always follows late after the first, which is testified to in terms of the damages incurred. The second dimension is the conflict between the political/economic concept, liberalism, i.e. globalisation on the one hand and interventionism and protectionism on the other (global platforms vs. national regulatory bodies).

Unique institutional solutions in terms of harmonised regulation within countries and at the global level have not yet been crystallised. For now, the dominant regulation is at the level of country states or part of economic associations (the EU). Different approaches at the state level may result in the risk of having different judgments in relation to the same dispute with digital giants (global platforms), even in neighbouring countries.

Additionally, regardless of the specifics that the DE brings on its own, the dominant solutions are still for the bodies in charge of regulating the traditional market to also be responsible for the digital market. Practice shows that these solutions are not sufficient to meet this challenge.

In the institutional/normative context, the question of the efficiency of regulatory timing deserves special attention – whether it is more purposeful to act ex-ante or ex-post. This topic seems particularly interesting because premature regulation could hamper innovation and prevent the development and implementation of solutions of general benefit.

#### 4 Guidelines and recommendations

Using the previous analysis and discussion, relevant papers on this topic and the solutions offered by expert teams from individual countries, the authors have proposed guidelines for the key directions of the transformation and reorganisation of regulatory policy at the national and global levels.

**a) The relevant market, market power and concentration** – due to the specifics of the network marketing, defining the relevant market in the DE is a complex requirement and ultimately results in an unreliable regulatory framework. Therefore, the dominant focus should be on determining market power, with the relevant instrument showing estimates of: a) whether the currently dominant firm can establish and make available **a superior database** in the medium and long term (Krämer & Wohlfarth, 2018); and b) the value, market dispersiveness, and the consumer's/ user's benefit from business expansion or a company merger.

The author are also of the opinion that one significant step forward in quality regulation in procedural terms is the introduction of interim measures to prevent damage to competition during the settlement and the seeking of a solution to antitrust investigations, as well as **changes in the standards for appeals** (Furman, 2019) because otherwise, as practice shows, many things can lead to absurdities.

**b) Access and data management as a key resource in the digital marketplace** – the main guidelines of regulatory policy in this segment should read: 'The user is the owner of their data and all their network interactions, and they are able to transfer, dispose of and trade using them.'

There is already expert agreement on the assessment that data mobility and interoperability are the main tools for combating the dominance of digital platforms. Dominant platforms must be required to enable users to transfer and use their data in real time and in an interoperable data format and to ensure interoperability with complementary services. (Gunnar, 2019; Furman, 2019; Stigler Center for the Study of the Economy and the State, 2019).

c) **Technology preferences and abuse** – the easiest way to solve the problem of self-preference seems to be by putting the burden of proof on the side of the operators/digital platforms, because it is difficult for the existing regulatory framework, which is conservative in nature, to track possible abuse based on variations in innovation that arise from the nature of the business pattern of digital platforms. Therefore, the authors believe that it is best to focus on the solution whereby the person who is responsible must bear the burden of proof in order to show that their actions are competitive (Gunnar, 2019).

d) **Status and positioning of the regulator** – all analyses and experiences show that it is necessary to move towards the establishment of special bodies for the regulation of the digital market. This approach has already been affirmed in a number of countries (in the United Kingdom the government supported the proposal of Furman’s report (Furman, 2019) on the creation of the new DMU – ‘digital markets unit’, while in France a special unit for digital market regulation is in the process of being established, and in the US, Stigler’s report (Stigler Center for the Study of the Economy and the State, 2019) suggests the need to form a special agency specifically tasked with regulating the digital market).

The authors of this study believe that the wider implementation of this approach should also result in the formation of a body – a global alliance – that would regulate strategic platforms (digital giants) at a global level.

The very nature of the problem of digital giant regulation opens up a huge space for a great deal of new research. The authors thus recommend two directions for such research:

1. The identification and functional analysis of normative, institutional and ethical control mechanisms in the monitoring of strategic platforms, which are involved in the development of regulatory rules, so that this exclusivity is not misused in their favour.
2. Testing the purposefulness and justification of the idea (the social benefits or risks arising from it) that, instead of general competition laws, special laws should be adopted that would refer exclusively to competition in the digital market, as well as the idea that different types of digital platforms should be treated differently in terms of regulation.

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