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“Killer Acquisitions and the ICT Corporate Strategy”

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Abstract.

In the past few years, we have witnessed the emergence of new technologies and a consequent change in our everyday life. With the rise and spread of the digital economy, few companies have become so big and important that they have established a strong dominance on several relevant markets. Their power is the result of a constant creation and development of new products and services, but also of a large number of acquisitions of small and nascent start-ups. The vast majority of the firms acquired are shut down after the transaction is completed, but their innovative ideas are developed by big-tech companies that have the resources to do so. This phenomenon is known as 'killer acquisitions'. The issue is that competition authorities do not have the proper regulatory tools for assessing them. In fact, many agencies are currently working at drafting the rules in order to have a more digital approach.

In the first chapter, it is thus presented an overview of the phenomenon and an analysis of its effect on competition and innovation through the explanation of some relevant case studies. It will be examined which are the reasons that incentive companies, especially the big-tech firms known as the GAFAM, to acquire innovative start-ups. Moreover, from a management point of view, it will be analysed which is the rationale of corporations' competitive strategies when launching these operations.

In the second chapter, it will be given an international perspective on the laws regulating acquisitions by considering the US antitrust regime, then the EU competition law and finally also the Italian legal system. These regulatory systems share many similar concepts and procedures, but they also have different approaches with respect to the merger control. The respective competition authorities devote attention to provide an up-to-date regulatory framework to address concerns brought by the digital economy (giants).

In the third chapter, some potential implementation of the competition law will be discussed thanks to previous researches and suggestions made by economists and legal experts. Some of these proposals have been already implemented, but have shown low or no effectiveness, therefore competition authorities are not yet ready to implement drastic changes that could turn out to be unsuccessful.

In the fourth chapter, it is then explained the typology of adjustments that could be made in order to catch killer acquisitions when analysing potential transaction able to restrain competition. The

German competition authority and the European Commission have made some changes to competition law after understanding that there is an enforcement gap in merger control, and that digital markets work very differently from traditional ones.

CHAPTER 1: Introduction.

1.1 Understanding killer acquisitions and their relevance within the ICT domain.

"We hear many worries that big digital businesses might be blocking paths that deliver innovation to consumer. We hear that promising ideas from small innovators can disappear because bigger businesses buy them in order to kill them. There's a lot to talk about these challenges." [1] This was part of the speech in which Margrethe Vestager highlighted the importance of the rising challenges of killer acquisitions in the digital domain. In fact, in her argument, the Danish Commissioner presented a new plan for addressing this particular problem by ensuring an up-to-date Merger Regulation.

In the last few years, the European Commission had to tackle this new and difficult phenomenon which is spread in all sectors, but especially in the technological industry. First of all, it is important to understand what killer acquisitions are and why they have become increasingly relevant in the last few years. Killer acquisition is a label that was introduced by Colleen Cunningham and Song Ma in their paper "Killer Acquisition" of 2018[2] and is now universally recognized as the case in which a large company acquires a smaller, innovative start-up or a nascent firm with the aim of discontinue innovation that might have endangered the incumbent's position. This action is undertaken by the incumbent because it sees the start-up as a threat of more intense competition, and, as a consequence, it feels the incentive to buy the potential rival to protect its dominant position. Usually, this type of strategy is taken by the incumbent when start-ups are in their infancy and this is the reason why a stricter regulation and a careful enforcement are needed.

It is worth mentioning the PayPal/iZettle merger which was completed on September 20, 2018 for approximately $2.2 billion[3]. PayPal offers digital payment services and allows the transfer of money online, while iZettle provides payment services to smaller businesses. The latter firm maintained the leading position as the largest mPOS provider over the period 2016-2018, and therefore was seen by

[1] See Margrethe Vestager, Commissioner for Competition at "Shaping competition policy in the era of digitisation" 17/01/2019 – Brussels, https://ec.europa.eu/competition/scp19/ .

[2] See Cunningham, Colleen and Ederer, Florian and Ma, Song, Killer Acquisitions (April 19, 2020). Journal of Political Economy, Vol. 129, No. 3, pp. 649–702, Mar. 2021, https://ssrn.com/abstract=3241707 .

[3] See Smith, Stephen, and Matthew Hunt. "Killer Acquisitions and PayPal/iZettle." Competition Law Journal, vol. 18, no. 4, 2019, p. 162-166, https://heinonline.org/HOL/P?h=hein.journals/comptnlj18&i=160 .

PayPal as a threat. This acquisition was really important because it was the first time that the British regulatory authority for competition, the Competition and Market Authority (hereinafter also CMA), had expressly considered whether this acquisition was intended to be a killer acquisition. Even if the acquisition was completed because it did not give rise to substantive competition concerns, this case marked a *discrimen* and from this moment onwards the future acquisitions have been carefully analysed in order to understand whether they could be considered as killer acquisitions.

The killer acquisition phenomenon has clearly a negative effect on competition and innovation. In fact, killer acquisitions give rise to realistic prospects of a substantial lessening of the competition in a certain market because they can be motivated by the incumbent as a way to prevent competitive behaviours in the future from an emerging rival. It raises concerns for competition because if a larger firm starts acquiring new start-ups, as soon as it notices that they develop innovative ideas, it will become bigger and bigger, leaving no space to smaller firms that might exit the market due to the incumbent's excessive power. Much greater attention to potential competition has to be given in commercial dealings involving large tech platforms with enormous capabilities to expand their reach into multiple adjacent markets through the acquisition of nascent firms.

One of the most famous and important killer acquisitions is presumably the one that involved Facebook and WhatsApp[4]. In February 2014, Facebook acquired WhatsApp for $19 billion because the latter firms had started gaining popularity as a real-time mobile messaging service especially in certain areas of the world. Messenger, Facebook's instant message service, was losing its charm and therefore, Mark Zuckerberg, CEO of Facebook, saw an opportunity to reach its goal to bring more connectivity and utility to the world by acquiring the prominent company. After having conducted a market investigation, the European Commission considered that the transaction did not give rise to serious doubts as to its compatibility with the internal market as regards the market for the provision of online advertising services, including its potential sub-segments. Therefore, given that the transaction was compliant with the Merger Regulation, the European Commission has decided to allow Facebook's acquisition of WhatsApp.[5]

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[4] See Facebook, "Facebook to Acquire WhatsApp", About Facebook, Feb. 2014, https://about.fb.com/news/2014/02/facebook-to-acquire-whatsapp/ .

[5] See European Commission, Decision of 03.10.2014 declaring a concentration to be compatible with the internal market and the EEA Agreement (Case M.7217 – Facebook/ WhatsApp), Brussels 03.10.2014 C(2014) 7239 final, the document in available on-line at: https://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf .

However, some tech companies that have already an overwhelming dominance in the market justify the need to make this kind of acquisition to fuel their expansion and growth. In fact, it can happen that there might be complementarities between the start-up and the incumbent, which may make a technology transfer the most profitable option for both firms. This kind of behaviour could sometimes have a relative positive effect on competition.

The other negative effect of killer acquisitions is the loss of innovation. New start-ups surface because one or more entrepreneurs want to develop a new product or service for which they believe there is a demand by consumers. Start-ups are usually considered innovative because there are at the early stage of business and they have just entered the market with a product that might threaten the incumbents' one. Large tech firms see potential in this kind of businesses and buy them at an extremely low price, but at an incredible fast rate. The loss of innovation is highly important specifically for consumers who care about having different choices for products and services. In this regard, it has to be similarly emphasised that it is still under investigation by the CMA the acquisition by Facebook of Giphy[6], which is an online database and search engine where users can share GIFs and stickers via its website or app and also through online social media platforms. The acquisition could potentially lead to reduced choices for users and further increase Facebook's market power in relation to social media, since Giphy would stop supplying its services to other social media platform.

On the bright side, a start-up may bring new innovative ideas and skills, while the incumbent can provide the necessary financial resources to develop and market the innovation successfully. The incumbent may have more incentives to develop the innovation than the potential entrant because it would lead to broader adoption given its established customers base. The incumbent could earn more from developing the innovation than the entrant which, at the same time, may also lack the necessary resources to develop the innovation. Through the acquisition, the incumbent may bring funding, alleviating these constraints and enabling the development of the entrant's technology. This might be a good thing for an entrepreneur who is willing to sell its company, but not for those who are trying to make a long-lived firm and seek to further expand their business.

However, it is often the case that if the acquirer is dominant in its product market, its only motivation for the acquisition may be to exclude other rivals from gaining access to the start-up's technology, whether it needs that technology or whether in this way a greater technological gap can be created

[6] See Competition and Markets Authority, "Facebook, Inc / Giphy, Inc Merger Inquiry", GOV.UK, Jun. 2020, www.gov.uk/cma-cases/facebook-inc-giphy-inc-merger-inquiry.

between firms in the same industry. In fact, much more attention has to be given to companies operating in the technological sector, especially in the ICT one.
In the past few years, the ICT domain has been at the centre of a heated debate due to the fact that there are increasingly more companies that become part of it and the related (relevant) markets are the most dynamic and complex ones. Information and Communication Technologies (ICTs) refers to all communication technologies, therefore the internet, wireless networks, cell phones, computers, software, middleware, video-conferencing, social networking, and other media applications and services enabling users to access, retrieve, store, transmit, and manipulate information in a digital form.

Killer acquisitions happening in this domain have been the top cases of interest for a number of reasons. First of all, the size of the major social network platform and the presence of network effects increase the likelihood that smaller innovative firms could have competitive advantages. Second, "today's complement can become tomorrow's substitute". One striking example could be the one of Instagram, which was just a platform where users could share their photos, but then after the acquisition by Facebook in 2012, it became a social network with all kind of functionalities. Third, nascent firms enter the market by starting to grow with a complementary product rather than competing with incumbents right away. Therefore, the tech industry is among the ones that have recently been more investigated by competition authorities, along with the pharmaceutical and the biotechnology sectors.

In fact, in the digital market, killer acquisitions take place without the intervention of a regulatory authority because the deal does not draw its attention given the low profile and also given the fact that there is huge uncertainty related to the start-up's future impact on the market. In this regard, such acquisitions may not come to the attention of competition authorities because nascent firms have a low turnover as they are trying to create a customer base and to collect data concentrating their effort in the R&D research rather than in the financial stability.

Start-ups get acquired by large big tech corporation and their products are completely absorbed into the incumbent's digital ecosystem fortifying its dominance. Indeed, one of the main concerns is that the tech conglomerates by constantly enlarging their product portfolio are creating extremely high entry barriers, which could strengthen their dominance. In general, these acquisitions tend to reduce innovation, especially for the R&D activity. In the case of killer acquisitions, big tech companies are willing to buy smaller firms especially because the incumbent's R&D department becomes less

productive in terms of innovative ideas over time, therefore, there might be no projects worth developing.

On the base of the above-mentioned discourse, in April 2012, Amazon acquired for $26 million Evi Technologies, which was a British company specialized in knowledge base and semantic search engine software[7]. In January 2012, this firm launched an artificial intelligence program which uses natural language processing and works on an app on iPhone and Android. Amazon acquired this start-up because it needed their technology in order to use it in the development of Amazon Alexa assistant, which is installed in Amazon Echo.

Another interesting example involves Microsoft, which in 2017 acquired Maluuba, a Canadian company with one of the world's most impressive deep learning research labs for natural language processing. "Maluuba's expertise in deep learning and reinforcement learning for question-answering and decision-making systems will help us advance our strategy to democratize AI and to make it accessible and valuable to consumers, businesses and developers" said Harry Shum, former Executive Vice President, Microsoft AI and Research Group[8]. Microsoft acquired the start-up because Maluuba possessed an AI system that could read and comprehend text with near human capability, outperforming similar systems shown off by Google and Facebook.

1.2 The growth of GAFAM through killer acquisitions.

In the past few years, since the introduction of online platforms, this industry has been dynamic and has evolved at a rapid pace; network effects and the value of big data are factors that should be taken into account when talking about GAFAM acquisitions and the way in which they changed competition in the digital market.

In the tech industry, the term GAFAM is well known and is the acronym made for Google, Amazon, Facebook, Apple and Microsoft which are the five most dominant and largest firms in information

[7] See Shead Sam, "The founder of a startup acquired by Amazon for a reported $26 million is now investing in AI", Insider, Aug. 2016, https://www.businessinsider.com/evi-founder-invests-in-ai-startups-after-26-million-amazon-acquisition-2016-8?IR=T .

[8] See Shum Harry, "Microsoft Acquires Deep Learning Startup Maluuba; AI Pioneer Yoshua Bengio to Have Advisory Role." The Official Microsoft Blog, Jan. 2017, https://blogs.microsoft.com/blog/2017/01/13/microsoft-acquires-deep-learning-startup-maluuba-ai-pioneer-yoshua-bengio-advisory-role/ .

technology, they are also referred to as “Tech Giants” or “Big Five”. The way in which companies collect, process and reproduce information has changed over time. A vast amount of digitized information can be stored and reproduced by high storage capacity computers, software, and hardware. Its economic significance is huge when the data collected comes from a vast number of computers, and hence from millions of users. These factors are fundamental in explaining how fast the growth of the Big Five has been. Being online platform, they could exploit as much as they wanted the network effects created by their services and at the same time collect and process an enormous volume of users’ data.

These two factors, however, can also be seen as a barrier to entry for nascent start-ups. Network effects can be difficult to overcome if the start-up launch its product, but does not raise any particular interest or attraction from users, leading to a low adoption from the customer base. Secondly, in the last few years, it has been applied the ‘law’ of “the more the data, the more the power”, therefore, if a start-up does not possess a great database or any smart way to collect data, it is unlikely that it will offer a valuable and successful service. In this regard, big tech platforms can also deny access to their data in order to discourage potential start-up to enter the market. The main steps of a killer acquisition involve the presence of an acquirer, a target company chosen by the acquirer and competition authorities who analyse whether the acquisition raises competition concerns and whether it can be allowed or blocked.

Between 2004 and 2018, within the tech industry the acquisition of start-ups and mature businesses has been an upward trend that occurred in waves. In the chart below, it can be seen how many acquisitions were made by GAFAM and non-GAFAM. It can be noticed that there has been a first wave over the period 2004-2008 and the second one from 2012 to 2018 and also that while non-GAFAM acquisitions have decreased, GAFAM’s ones have instead increased. The most important issue to consider is that almost half of the acquisitions in the technological market were completed by the Big Five.

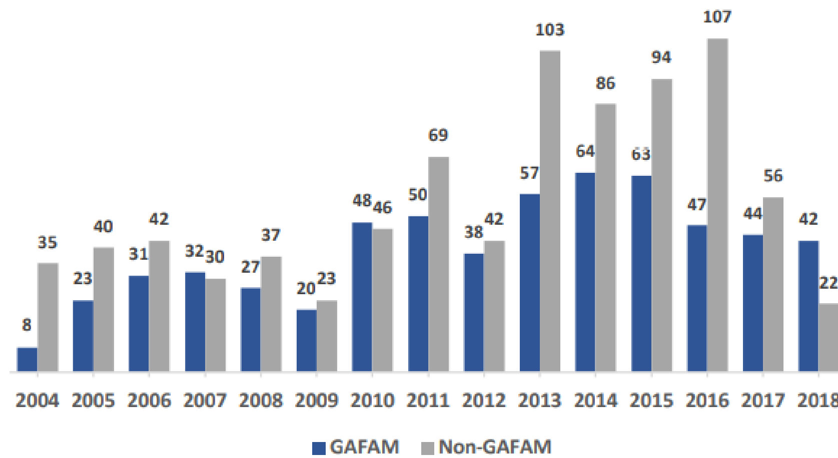

Figure 1: “Acquisitions of Start-ups by Digital Firms and Merger Policy”, Marinell E.

Since the GAFAM are the most innovative and digital companies in the world whose services and product have disrupted several industries and changed our perspective on the social and the digital spheres, it seems inconsistent the fact that they need new start-ups to reinvent their offered value. The reason is that “a firms’ capability to sustain its competitiveness in the dynamic environment with rapid technological change are consequently linked to its ability to create, modify, and extend its technological resources”[9]. In fact, start-ups are much better at developing breakthrough innovations as in bigger businesses, it is more difficult to create radically new products or services.

Increasingly often, especially in the digital sector, a Big Tech corporation takes the role of the acquirer and a small nascent firm the one of the target company. Most of these mergers are usually not reviewed by the European Commission or the national competition authorities as they are below the notification thresholds, since the acquired company is a start-up, and the ones that are analysed are in general authorised without conditions. This phenomenon has been very common not only in the past few years, but also since when platforms started gaining so much popularity in 2009. Since then, the GAFAM have realised in 11 years more than 400 acquisitions globally. Only few of them have been scrutinized, but the vast majority has passed the approval without any particular concern by the competition authorities. The reasons why there is so much interest and attention in focusing on these five big tech firms is that they are the most active in terms of acquisition in their sectors and also because their strong market position nourishes the growing fear that they will gain even more power in the future.

[9] See Andersson Martin & Xiao Jing, “Acquisitions of start-ups by incumbent businesses: A market selection process of ‘high-quality’ entrants?”, Research Policy, Volume 45, Issue 1, 2016, Pages 272-290, https://www.sciencedirect.com/science/article/pii/S0048733315001493 .

The Tech Giants proceed by acquiring firms that may or may not be active in the same industry; also, most of the time nascent firms acquired are completely absorbed into the big firm and their products or services may be discontinued. Hereafter, it is worth mentioning the findings of a research made by Dr. O. Latham, Dr. I. Tecu, and Dr. N. Bagaria in March 2020 regarding GAFA's acquisitions.

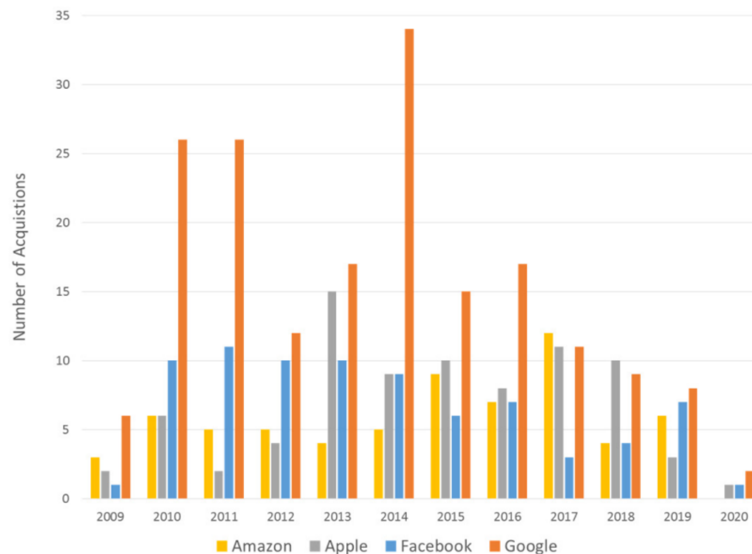

Figure 1: GAFA acquisitions by year. (Listed on Wikipedia)

This chart represents the acquisitions made by the GAFA in the period between 2009 and March 2020. In their paper "Beyond killer acquisitions"[10], they analyse whether these transactions were directly related to the purchaser's core business, therefore, the online retail for Amazon, the devices for Apple, the social networking for Facebook, and the search and online advertising for Google. It is interesting to note that only 12% of Amazon's acquisitions were related to its core business, 0% for Apple, 8% for Facebook and 13% for Google. It is important to notice that these giant tech industries have been analysed for acquisition in their core business, but they are active in so many industries that their 'target business' can be anything and therefore cannot fit into a single definition of the relevant core business in which they operate.

Furthermore, big tech corporations pay a high price for these acquisitions when merging with nascent firms and this suggests that start-ups have innovative business ideas with great competitive market potential.

[10] See Latham Oliver & Tecu Isabe, "Beyond killer acquisitions: are there more common potential competition issues in tech deals and how can these be assessed?", CPI Antitrust Chronicle May 2020, May 2020, https://media.crai.com/wp-content/uploads/2020/09/16164722/CPI-Latham-Tecu-Bagaria.pdf .

According to Gautier and Lamesch[11], there are several reasons for which one of the GAFAM platforms may acquire a nascent firm, some of which are common to any other acquisition. The platform firm might be interested in the product the start-up has developed or otherwise in its inputs. Plus, a big tech industry might want to strengthen even further its position on the market by cutting out any competition it may arise. In their research about the anticompetitive behaviour of GAFAM over the period 2015-2017, they considered an acquisition to be a killer acquisition if three conditions were satisfied. First, the acquirer firm and the acquired one have to operate in the same market. Second the start-up must have a large user base. Third, the acquired business will continue to exist with its original brand name. The first condition is valid for many cases, but not for the majority as it is shown in the research made by Latham Oliver & Tecu Isabe in their paper mentioned before.[10] As we have said, GAFAM cannot be fit into one single market and therefore this condition can only be considered marginal. The second requirement comes from the fact that a company cannot be seen as a potential competitor without a solid and significant user base. This has been originated by the network effect, which means that a technology's usefulness and convenience increase as more people use it. Furthermore, in their research they found that in 60% of the acquisitions, the product of the acquired company is discontinued after the transaction is completed. When a product is discontinued it means that it is no longer supplied, maintained or developed under its original brand name, which it is different of what happened when Facebook acquired Instagram or when Microsoft acquired LinkedIn. Usually, when a product is more similar to the acquirer's, it is more likely that it will be discontinued.

There are three main reasons for which a product may be discontinued after the smaller firm is acquired. First, the product may be not as much successful as it was initially thought and the idea is given up. Second, the target company is shut down because the only purpose of the acquirer was to buy its assets. Third, the product would have competed with the acquirer' ones, therefore a proper killer acquisition takes place. Apple did discontinue the product acquired for 80% of the acquisition made over the period 2015-2017, which is more than all the other giants in the same period. This choice may reflect the firm's decision to create a closed system of products sold under a unique brand. Across all firms, the more recent acquisitions are more likely to be continued because there is more interest by Tech Giants to still invest in a successful and new idea; while discontinuation of product is frequent when the start-up acquired is closely related to the core business of the company. The GAFAM group intensively acquires young start-ups at an early stage in their business life which are

[11] See Gautier Axel & Lamesch Joe, "Mergers in the digital economy", Information Economics and Policy, Elsevier, vol. 54(C), http://www.sciencedirect.com/science/article/pii/S0167624520301347 .

specifically related to its core segment and usually their products are no longer developed as independent ones. The main reason why a big tech decides not to discontinue a nascent firm, making it operate with its original brand name is that there are strong complementarities.

1.3 Corporate Competitive Strategies used in acquisitions.

Mergers and Acquisitions, across businesses, is a difficult capability to build and very few firms have understood how to make it successful and how to create value with it. In order to possess a strong M&A capability, companies are required to build four often -neglected institutional features: engage in M&A thematically, managing your reputation as an acquirer, confirming the strategic vision, and managing synergy targets across the M&A life cycle.[12] In this way, firms are more likely to develop it as a strategic capability that delivers a competitive advantage that is difficult to be replicated by others.

Often companies use M&A in all directions to purchase growth or an asset, without a clear understanding of how to create value, such as with developing new products or building a sales force to deliver an acquired product. Firms waste time and resources on targets that reveal to be fruitless, while successful companies develop a plan of potential acquisitions around few explicit M&A lines of business interest, which are effective business plans that utilize both M&A and organic investments to meet a specific objective.

Companies use M&A to deliver their strategy and add new value to their targets. With their M&A attitude defined so precisely, managers are able to narrow the list of potential candidates to a handful of companies. Few companies consider how they are perceived by targets or how their value proposition as an acquirer is better or worse than that of their competitors. Firms that invest in their reputation as acquirers are perceived as bold, focused on collaboration, and able to provide real mentorship and distinctive capabilities, principally due to the way in which they present themselves and manage M&A.

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[12] See Ferrer Cristina, et al., "M&A as competitive advantage", McKinsey & Company, Aug. 2013, https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/m-and-a-as-competitive-advantage .

However, M&A is complex, and it is not the answer for every strategic goal. Companies that can manage the complexity of M&A by building the capabilities and insights required to realize its full potential for growth can enjoy an enduring competitive advantage. The Competitive Strategy of a company includes the approaches and initiatives undertaken to attract customers and to deliver value to them through fulfilling their expectations and, at the same time, strengthening the market position.

According to Goedhart et al.[13], the strategic rationale for an acquisition that creates value typically conforms to at least one of the following six archetypes: (1) improving the performance of the target company, (2) removing excess capacity from an industry, (3) creating market access for products, (4) acquiring skills or technologies more quickly or at lower cost than they could be built in-house, (5) exploiting a business's industry-specific scalability, and (6) picking winners early and helping them develop their businesses. The first archetypes explains that when a firm buys another company, it wants to reduce the costs and improve the profits in order to accelerate revenue growth. The third one illustrates the fact that small companies with innovative products usually have difficulties at reaching the entire potential market for their product. In fact, the strategy pursued by companies when making a killer acquisition usually consists in buying and shutting down a nascent firm basically for two reasons. The first is that the incumbent firm does not want to suffer any loss of revenue that might happen when the start-up's product matures; the second may be to buy and continuing developing that product because of its innovative nature. However, the character of the product developed by start-up and its potential is highly uncertain given the fact that the small firm might have just hit the market or it is trying to do so. The fourth archetype is actually really frequent in the digital market, in fact, many technology-based companies buy other firms that have the technology needed in order to enhance their own product. Their motivation lies in the fact that they can acquire a technology more quickly than they can develop it themselves, avoiding royalty payments on patented technological ideas and prevent the competitors from relying on the same technology.

Below are cited two examples that will explain how recurrent this incentive is. In particular, regarding killer acquisitions, it can be observed that large firms acquire smaller companies for pursuing essentially three strategies. First, acquisitions are typically made because the acquirer wants to maintain or even strengthen its dominant position on the market without having to be concerned about potential competitor that may arise. Second, large companies may want to acquire smaller firms because of sets of data that are not yet possessed by the acquirer, which is consistent to the fourth

[13] See Goedhart Marc et al., "The six types of successful acquisitions", McKinsey & Company, May 2017, www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/the-six-types-of-successful-acquisitions .

archetype. Finally, as already mentioned, the R&D activities of a big firm become less and less productive, therefore, a new radical change is needed and it can be obtained through the acquisition of a start-up which may have the perfect new idea or the technology needed to develop a certain product. These three strategies are not mutually exclusive, but rather they might be accomplished together.

The following two cases are worth mentioning to understand both how easy and fast GAFAM have been able to grow in the last decade and which was the strategy used during the completion of the acquisition.

Until 2013, Google operated as an Internet search engine and sold advertising space on its websites and on partner websites. Among other services, it offered Google Maps, a free application providing mapping and turn-by-turn navigation services. At that time, Waze provided another turn-by-turn navigation app that was only available on mobile devices. On November 11, 2013, Waze was acquired for $966 million by Motorola Mobility Holding which was a wholly owned subsidiary of Google at the time of the acquisition. The competition authority, the Office of Fair Trading (hereinafter also OFT) investigated the acquisitions basically for two reasons. First, the transaction could significantly affect the competition in the market for mobile turn-by-turn navigation applications, reducing both the parties' incentives to innovate and the quality of the services offered to users. Second, Waze could represent a disruptive force in the market in the future. These two concerns were dismissed, the former because Waze did not have a solid customer base in the UK that was considered comparable to Google's; the latter because Waze's future growth was uncertain and it was said that it did not possess significant network effects that could give prospect of further expansion. Regarding Waze's potential, there were signals that it had identified a promising path to growth: it was one of the most popular navigation apps among Android and iOS users. Besides, being an app based on crowd-sourcing where users could add accurate and reliable information on real-time traffic at any time, Waze showed to have potential given its low implementation costs. Waze had actually achieved a sufficient scale in the UK, but it was not sure whether its network effect could play a role in accelerating growth. Waze had found a way to leverage its existing customer base: the larger such base, the more contributions to the quality of the maps and of the service in general; since better quality attracts more users, a positive feedback loop was created. Therefore, maybe Waze could have become a relevant competitive force in the market. At the time of its decision, the OFT relied on the fact that there were other providers of turn-by-turn navigation apps, different from Waze, that would continue to represent strong competitive constraints on Google Maps, particularly Apple Maps.

This seems to be rather unlikely given that Google Maps had a 66% share of the market, Apple Maps 30%, Waze 2% and the others attracted very few users. In fact, Waze had a first mover advantage being the first firm to use a model based on crowdsourcing which is difficult to be replicated and to achieve the same success as it did. Google's Waze acquisition might have made it an even more relevant provider of location data, reinforcing its competitive position for the provision of online advertising across all its services. At the time of the acquisition, the OFT relied on Apple Maps to act as a source of competitive constraint on the merged entity, but clearly its role has been overstated and Apple Maps did not represent as much as a competitor than expected. In fact, the competition authority declared that "Waze's position in the UK does not prevent others from successfully developing their own crowd-sourcing model or otherwise entering or expanding in relation to turn-by-turn navigation application for mobile devices". Consequently, the OFT did not believe that it was the case that the merger could result in a substantial lessening of competition within a market or markets in the United Kingdom and Google's acquisition of Waze was allowed.[14]

In a more general perspective, as already observed, one of the main reasons for which large firms acquire smaller companies is to gain access to valuable data. For example, data access was the main source of concern in relation to the Apple's acquisition of Shazam. These two companies were both active in the digital music industry, but with different roles. Besides the production and development mobile, personal computers, and operating systems, Apple relied on one of the leading music streaming platforms on the market. Shazam, at the time of the operation, not only offered a music recognition app for devices, but also was active in the online advertising market. The acquisition could have raised competition concerns regarding Apple's access to commercially sensitive information about competing music-streaming platforms, like Spotify. Shazam collected information about the user's identity and the presence of other installed digital music streaming apps. These data could help Apple to improve the effectiveness of its customer acquisitions strategies by targeting its rivals' customers through advertising or marketing campaigns. The Commission concluded that the overall impact of these practices on the competition would have likely been limited because even if this strategy was feasible for Apple, it was looking for new subscribers, not switchers, and Apple had already planned to change its policy for data collection after the acquisition.[15] Another concern regarded the possibility to use the data collected by Shazam to improve existing functionality or add

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[14] See Office of Fair Trading Decision of 11 November 2013 in Case ME/6167/13 – Motorola Mobility Holding (Google, Inc.) / Waze Mobile Limited, https://assets.publishing.service.gov.uk/media/555de2cfed915d7ae2000027/motorola.pdf .

[15] See European Commission, Decision of 6.9.2018 declaring a concentration to be compatible with the internal market and the EEA Agreement (Case M.8788 – Apple/Shazam), Brussels, 6.9.2018 C(2018) 5748 final, the document in available on-line at: https://ec.europa.eu/competition/mergers/cases/decisions/m8788_1279_3.pdf .

new ones, like offering better targeted music suggestions to users. The Commission concluded that the typology of data collected by music recognition was not a valuable input, and the acquiring party would had not considered it as a strategic asset; but this seems to be quite conflicting with the fact that in this way Apple gained access to listening habits of millions of users with its $400 million acquisition. However, the Commission found that Apple's acquisition of Shazam would not have significantly impeded effective competition as a result of conglomerate foreclosure effects in the market for automatic content recognition software solutions, or in any possible sub-segments of that market including music recognition apps, either in the EEA or worldwide. Therefore, such acquisitions happen increasingly more because of the incentive from Big Tech to own more and more sensible data.

1.4 Conclusions.

Killer acquisition is a case in which a big powerful firm acquires a small nascent firm to strengthen its market power and to discontinue the growth of start-up that could have been a potential rival in the future. It clearly has a negative effect on competition and innovation given that by taking this action large companies prevent nascent firms from trying to develop their own new services and products that might harm the incumbent's established market.

There are also some benefits of killer acquisitions especially when there is the emergence of complementarities between the acquiring firm and the acquired one. Other advantageous aspects of this kind of acquisition are the enhanced development of innovative ideas that benefit customers and the fact that larger firms can financially invest in the small companies which lack the necessary resources to further developing the innovation.
However, all these actions are undertaken by big companies, and especially from the GAFAM group, in order to strengthen their already dominant position and to cut them out of the market. In fact, the vast majority of nascent firms, once acquired, are shut down and their product may still exist under a different name or may be integrated in and absorbed by products already developed by the acquiree. This behaviour, especially if it comes from the Big Five, drives competitors out of the relevant sector because of their acknowledged thirst of power in the high-tech industry and may represent an entry barrier for newcomers.

Killer acquisitions are currently taking place in all kind of sectors around the world; however, some industries are more affected by this phenomenon. The pharmaceutical and the biotechnology sectors, as well as the high-technological one, are the markets where the majority of this kind of acquisitions happen. These are all sectors that have been impacted by a huge innovative boost that allowed them to achieve a surprisingly high growth in just a limited period of time and this made lots of start-up to be born. In particular, most of the acquisitions conducted by the Big Five have concerned small nascent firms that did not trigger the attention and the interest of competition authorities.

In fact, killer acquisitions happened because the regulatory framework was set in a way that companies with low turnover, but great potential, were not caught. Therefore, the current regulation should be implemented in order to address this problem that has damaged innovation and competition in these sectors.

CHAPTER 2: The law on killer acquisitions.

2.1 An international perspective on mergers and acquisitions' law.

Killer acquisitions are currently known anywhere in the world, but they are still not disciplined in any legislative framework and regulation by any institutional authority or official organization.

In fact, both in the USA and in the EU, laws concerning concentrations[16] were added to competition law at a later stage, after competition authorities realised how firms' mergers and acquisitions could harm the fair competition in markets and also because of their complex nature.

The European and the American systems have many similarities as well as several differences. Both systems have a substantive test for the assessment of the merger or the acquisition and follow a two-step procedure to scrutinise mergers and acquisitions. In the first phase, the parties are required to make a notification to the competition authority which will make a preliminary assessment of the acquisition by evaluating if there could be a detrimental effect on competition in the relevant market. If necessary, the authority moves to the second phase which entails a deeper analysis and a more detailed investigation of the potential effects. After this last step, the competition authority issues a formal enforcement decision and can either allow or clear the proposed merger or acquisition under certain conditions.

It is important to note that the European Commission's enforcement powers are limited to reviewing relatively large transactions, leaving smaller deals to the competition authorities of the Member States, which in Italy is the AGCM – 'Autorità Garante della Concorrenza e del Mercato'. The delineation of national and Community control powers is based on worldwide turnover and Community turnover figures. Instead, in USA, the federal competition authority captures a broader size range in its regulatory net and, therefore, the number of notifications received is substantially higher.

In this chapter, in order to have a more international and broad perspective on the law applicable in the case of an acquisition, the US and the European legislative framework will be analysed and

[16] In European Competition Law, the term 'concentration' is a broad concept that includes mergers, acquisitions and joint-ventures.

discussed. This choice is dictated by the fact that the acquisitions mentioned in the first chapter involved companies that operate and are placed in these two countries and the law applied was the European or the American one. Regarding the law on acquisitions, the US antitrust law will be considered in the first place, then the European competition law will be examined. Later, it will be given an insight of the Italian law as an example of how the European law cooperate with the national one and which prevails in a certain situation and under some conditions.

2.2 The US Antitrust Law.

In the United States, the competition authorities are the Federal Trade Commission (hereinafter also FTC) with its Bureau of Competition which enforces the antitrust laws and the Department of Justice (hereinafter also DoJ) with its Antitrust Division. Both the FTC and the DoJ enforce the federal antitrust laws and, even if in some respects their authorities overlap, in practice the two agencies complement each other. The FTC devotes most of its resources to certain segments of the economy, including those where consumer spending is high: health care, pharmaceuticals, professional services, food, energy, and certain high-tech industries like computer technology and Internet services. Before opening an investigation, the two agencies consult with one another to avoid duplicating efforts. The FTC also may refer evidence of criminal antitrust violations to the DoJ, which is the only one that can obtain criminal sanctions. The DOJ also has sole antitrust jurisdiction in certain industries, such as telecommunications, banks, railroads, and airlines. Some acquisitions also require approval of other regulatory agencies using a "public interest" standard. The FTC or DoJ often work with these regulatory agencies to provide support for their competitive analysis.

The DoJ enforces the Sherman Act[17] and the Clayton Act[18] against mergers and acquisitions that may have the effect of substantially lessen competition. While the FTC enforces Article 5 of the FTC Act[19] which prohibits “unfair methods of competition” and the Clayton Act. The Supreme Court has cleared that all violations of the Sherman Act also violate the FTC Act. Thus, although the FTC does not technically enforce the Sherman Act, it can bring cases under the FTC Act against the same kinds of activities that violate the Sherman Act. The FTC Act also reaches other practices that harm

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[17] 15 U.S.C. § 1.1.

[18] 15 U.S.C. § 12.

[19] 15 U.S.C. § 45.

competition, but that may not fit neatly into categories of conduct formally prohibited by the Sherman Act. Only the FTC brings cases under the FTC Act.
The Sherman Act is considered a core pillar of the antitrust law and it outlaws any agreement that restrains trade. Section 1 states that "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." However, the Sherman Act does not prohibit every restraint of trade, but only those that are unreasonable. For instance, in some sense, an agreement between two individuals to form a partnership restrains trade, but may not do so unreasonably, and thus may be lawful under the antitrust laws. On the other hand, certain acts are considered so harmful to competition that they are almost always illegal. These include plain arrangements among competing individuals or businesses to fix prices, divide markets, or rig bids. These acts are "*per se*" violations of the Sherman Act meaning that no defence or justification is allowed.

The penalties for violating the Sherman Act can be very severe. Although most enforcement actions are civil, the Sherman Act is also a criminal law, and individuals and businesses that violate it may be prosecuted by the Department of Justice; however, criminal prosecutions are typically limited to intentional and clear violations. The Sherman Act imposes criminal penalties of up to $100 million for a corporation and $1 million for an individual, along with up to 10 years in prison. In fact, Section 2 of Sherman Act states that "every person who shall make any contract or engage in any combination or conspiracy hereby declared to be illegal shall be deemed guilty of a felony, and, on conviction thereof, shall be punished by fine not exceeding $100,000,000 if a corporation, or, if any other person, $1,000,000, or by imprisonment not exceeding 10 years, or by both said punishments, in the discretion of the court."[20] Under federal law, the maximum fine may be increased to twice the amount the conspirators gained from the illegal acts or twice the money lost by the victims of the crime, if either of those amounts is over $100 million.

Another pillar of US Antitrust law is the Clayton Act, which addresses specific practices that the Sherman Act does not clearly prohibit, such as mergers and acquisitions. Section 7 of the Clayton Act specifically prohibits these practices by declaring that "no person (…) shall acquire the whole or any part of the assets of one or more persons engaged in commerce or in any activity affecting commerce, where (…) the effect of such acquisition (…) may be substantially to lessen competition, or to tend to create a monopoly." The Clayton Act was amended again in 1976 by the Hart-Scott-

[20] 15 U.S.C. § 1.2.

Rodino Antitrust Improvements Act[21] to require companies planning large mergers or acquisitions to notify the government of their plans in advance. In fact, merger law is generally forward-looking: it bars mergers and acquisitions that may lead to harmful effects and it is designed to stop mergers and acquisitions that represent a threat in their incipiency. The pre-merger notification requirements of the Hart-Scott-Rodino Act allow the antitrust agencies to examine the potential effects of proposed mergers or acquisitions before they take place. In addition, the agencies investigate some completed mergers or acquisitions that subsequently appear to have harmed customers.

Furthermore, in 1992, the FTC and the DoJ have developed the Horizontal Merger Guidelines[22] that set out the agencies' analytical framework for answering the question of whether a proposed merger or acquisition is likely to create or enhance market power or facilitate its exercise. In 1997, the agencies revised the Guidelines and in 2006 they also issued a Commentary on the Horizontal Merger Guidelines that provided many specific examples of how those principles had to be applied in actual cases reviewed by the agencies. In these Guidelines, mergers and acquisitions are together referred to as ‘horizontal mergers’, but a final section is also dedicated to partial acquisitions described as a situation in which one firm partially acquires its competitor. The FTC and DoJ stated that the general rules apply to this kind of acquisitions and, therefore, they also review acquisitions of minority positions involving competing firms, even if such minority positions do not necessarily or completely eliminate competition between the parties to the transaction. The Guidelines declare that the relevant statutory provisions include Section 7 of the Clayton Act, Sections 1 and 2 of the Sherman Act, and Section 5 of the Federal Trade Commission Act.

Under the before-mentioned Hart-Scott-Rodino Act, the FTC and the DoJ must review most of the proposed transactions that affect commerce in the United States and are over a certain size, and either agency can take legal action to block deals that it believes would substantially lessen competition. The vast majority of deals reviewed by the FTC and the DoJ are allowed to proceed after the first, preliminary review. Although there are some exemptions, for the most part current law requires companies to report any deal that is valued at more than $92 million to the agencies so they can be reviewed. After this first phase, in the second one, the agencies do a preliminary review to determine whether it raises any antitrust concerns that warrant closer examination. Since the FTC and the

[21] 15 U.S.C. § 18a.

[22] See U.S. Department of Justice and the Federal Trade Commission, “Horizontal Merger Guidelines”, Aug. 2010, https://www.ftc.gov/sites/default/files/attachments/mergers/100819hmg.pdf .

Department of Justice share jurisdiction over merger review, transactions requiring further review are assigned to one agency on a case-by-case basis depending on which agency has more expertise with the industry involved. During the preliminary review, the parties must wait 30 days before closing their deal. Based on what the agency finds, it has the power to either terminate the waiting period and allow the parties to consummate their transaction, a situation which is described as an 'early termination', or let the waiting period to expire, which allows the parties to consummate the transaction.

Otherwise, if the initial review has raised competition issues, the agency may extend the review and ask the parties to turn over more information so it can conduct an even deeper analysis on the transaction, which is called Second Request. This extends the waiting period and prevents the companies from completing their deal until they have "substantially complied" with the Second Request and observed a second waiting period. A Second Request typically asks for business documents and data that will inform the agency about the company's products or services, market conditions where the company does business, and the likely competitive effects of the merger or acquisition. In the fourth step, the parties substantially comply with the Second Requests. The length of time for this phase of review may be extended by an agreement between the parties and the government in an effort to resolve any remaining issues without litigation. Then in step five, the waiting period expires or the agency challenges the deal. The potential outcomes at this stage are: (1) close the investigation and let the deal go forward unchallenged; (2) enter into a negotiated consent agreement with the companies that includes provisions that will restore competition; or (3) seek to stop the entire transaction by filing for a preliminary injunction in federal court pending an administrative trial on the merits.

Although the U.S. pre-merger notification system subjects most mergers of significant size to pre-merger review for competition concerns, a transaction does not have to be subject to such review for the FTC and the DoJ to be able to challenge it under the antitrust laws. The agencies have the ability to review, and if necessary, challenge non-notifiable transactions, including consummated transactions.

Furthermore, the Hart-Scott-Rodino Antitrust Improvements Act, together with Section 13(b) of the Federal Trade Commission Act and Section 15 of the Clayton Act, enables the Federal Trade Commission and the Antitrust Division of the Department of Justice to obtain effective preliminary relief against anticompetitive mergers, and to prevent interim harm to competition and consumers.

The pre-merger notification program was instrumental in alerting the FTC and the DoJ to transactions that became the subjects of the numerous enforcement actions to protect consumers, such as individual, business, and government purchasers of goods and services, against anticompetitive mergers and acquisitions. Under Section 7A(g)(1) of the Hart-Scott-Rodino Act (hereinafter also Act), any person that fails to comply with the Act's notification and waiting period requirements is liable for a civil penalty of up to $42,530 for each day the violation continues. The antitrust agencies examine the circumstances of each violation to determine whether to seek penalties.

U.S. antitrust law recognizes that mergers among competitors, including nascent or potential competitors, may be anticompetitive, especially "when an industry leader seeks to acquire an up-and-coming competitor that is changing customer expectations and gaining sales."[23] This includes the acquisition of a company that is not yet present in a market, but which may have the ability and incentive to enter and compete in the incumbent's market. The FTC and the DoJ understand the importance of competition from firms that threaten to disrupt market conditions by repositioning or offering a new technology or business model, and appreciate that the elimination of such firms through M&A activity can result in a substantial lessening of competition.

In some industries, especially in the high-tech one, market conditions and industry structure are not always static and may change rapidly. Therefore, the FTC and the DoJ bear in mind that current or past market shares may overstate – or perhaps understate – the current or future competitive significance of industry participants, particularly in industries where innovation and new product development are key dimensions of competition. The FTC and the DoJ consider both price and non-price effects in their analyses, recognising that firms often compete on the basis of quality and innovation, such as new product development, among other factors.

For the FTC and the DoJ, it may be extremely difficult to predict anticompetitive effects with precision when the parties do not currently operate in the same relevant market and the competitive effects are forecasted on the reasonable likelihood of future competition between the transacting parties. In analysing the potential for competitive harm from a transaction, the FTC and the DoJ rely

[23] See Prepared Statement of the Federal Trade Commission, "Competition in Digital Technology Markets: Examining Acquisitions of Nascent and Potential Competitors by Digital Platforms," before the U.S. Senate Committee on the Judiciary, Subcommittee on Antitrust, Competition Policy, and Consumer Rights (Sept. 24, 2019), https://www.ftc.gov/system/files/documents/public_statements/1545208/p180101_testimony_-_acquisitions_of_nascent_or_potential_competitors_by_digital_platforms.pdf .

on a broad range of evidence, including, but not limited to, strategic plans and other business documents, and public statements of the acquiring and to-be-acquired firm, and inquiry into the rationale for the proposed transaction. The FTC and the DoJ also consider the acquirer's past successes or failures in bringing to market new or acquired products and the likelihood that the acquired firm would develop into a significant competitor without the acquisition.
Moreover, the FTC and the DoJ also seek and evaluate the views of competitors and customers of the merging parties, industry experts, and market analysts. Where future competition may depend on the willingness of investors to fund, or continue to fund, new or developing market participants, the two agencies may seek and evaluate the views and future plans of investors. The FTC and the DoJ also have challenged acquisitions where the transaction was likely to delay or block future competition against the incumbent. Identifying and proving a loss of potential competition can be a challenging predictive exercise.

Furthermore, in the past few years, there have been special cases in which a firm may acquire another firm merely to terminate or suspend innovative activity or the development of a product perceived to be a competitive threat to the acquiring firm. Currently, this phenomenon is referred to as "killer acquisitions" and the FTC and the DoJ devote attention to such acquisitions in which an incumbent acquires a firm that could develop into a future competitor, or assets necessary for a firm to develop products or services in competition with the incumbent.

In fact, recently the FTC conducted a series of hearings to examine whether adjustments to competition policy were necessary in order to address changes in the economy, evolving business practices, and new technologies. In particular, a hearing held on October 17, 2018, assessed the appropriate antitrust framework for evaluating 'Acquisitions of Nascent and Potential Competitors in Digital Technology Markets'. During this hearing, issues related to killer acquisitions were discussed and addressed, and it was said that the current antitrust laws were effective and adaptable to the digital environment. Therefore, given that the US Antitrust Agencies have used to challenge transactions in the past, businesses could continue to rely upon them in the future. On July 23, 2019, the DoJ reviewed the practices of market-leading online platforms by focusing on whether and how they achieved market power and engaged in practices that have reduced competition, stifled innovation, or otherwise harmed consumers. The goal of the review was to assess the competitive conditions in the online marketplace to ensure that companies compete on the merits to provide services that users want. If the DoJ identified violations of law, it proceeded appropriately to seek redress.

Moreover, on February 11, 2020, the FTC issued Special Orders pursuant to Section 6(b) of the FTC Act to the Tech Giants[24]: Google, Apple, Amazon, Facebook, and Microsoft. The FTC's Special Orders require these firms to provide information about prior acquisitions not notified to the Agencies under the Hart-Scott-Rodino Act, including information and documents on the terms, scope, structure, and purpose of transactions that each company consummated between January 1, 2010 and December 31, 2019. This information has helped the FTC evaluate whether the Agencies were getting adequate notice of transactions that might harm competition in the digital economy.

Therefore, in the US killer acquisition are being addressed by both the FTC and the DoJ which have promised to protect competition and innovation as well as customer especially in the digital markets where big companies like GAFAM are active. The agencies are both committed to ensure a vigorous enforcement of the antitrust laws and to promote current and future competition in critical technology sectors.

2.3 The EU Competition Law.

As mentioned above, the US and the EU competition laws have similar objectives, but different approaches. In fact, while in US the antitrust law concerns more about any acquisition that may be substantially to lessen competition or to tend to create a monopoly, in EU the competition law focuses on any acquisition that may lead to unilateral dominance and to the creation or strengthening of a dominant position.

European competition law's purpose is to enable and promote a sustainable development of Member States based on price stability and balanced economic growth in a competitive social market economy. The goal of competition law in Europe is focused on the establishment of the internal market and the well-being of consumers and it can be summarized in the speech of Neelie Kroes, former Competition Commissioner, held on September 15, 2005: "Our aim is simple: to protect competition in the market as a mean of enhancing consumer welfare and ensuring an efficient

[24] The definition was given *supra* at paragraph 1.2.

allocation of resources in order to ensure that citizen enjoy the benefits of a competitive, dynamic market economy”.[25]

In 2003, Regulation (EC) n. 1/2003 was issued on December 16, 2002 in order to update Articles 81 and 82 of Regulation n. 17/1962 which until then had regulated the application of the common competition rules. Its introduction was important because it had changed in a significant way the first competition rules that were dated back to the Treaty of Rome in 1957. Since it was a Regulation, and therefore it had direct application, it took place both at national level (national courts and National Competition Authorities (hereinafter also NCAs)) and at EU level. When the national competition authorities apply the national legislation regarding agreements, they shall apply art. 101 of the TFEU, and regarding abuses of dominant position, they shall apply art. 102 of the same treaty. Stricter rules can be applied by Member States if their national legislation requires them.

Article 81 of the Treaty of Rome states that “all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect trade between Member States”, which are incompatible with the free competition in the common market, shall be prohibited and in particular those which fix prices, limit production and technological progress, and apply dissimilar condition of trade to other parties. In the case in which these agreements between undertaking improve the production or distribution of good or promote technological and economic progress, they can be allowed. Article 82 of the Treaty of Rome states that the same shall apply to the undertaking that exercise an abuse of dominant position in the market. These articles are now referred to, respectively, as Article 101 and 102 of the Treaty on the Functioning of the European Union (TFEU).

Regulation (EC) n. 1/2003 was really important because it allowed for competition rules previously applied by the European Commission to be enforced on a decentralised basis by Member States' competition authorities. In fact, this Regulation has enhanced the role of national antitrust authorities and courts in implementing EU competition law and it was further improved by Directive (EU) 2019/1[26]. In such a decentralised enforcement context, efficient coordination between the national

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[25] See Neelie Kroes, former Member of the European Commission at European Consumer and Competition Day “Delivering Better Markets and Better Choices”, 15/09/2005, London; https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_05_512 .

[26] See Directive (EU) 2019/1 of the European Parliament and of the Council of 11 December 2018 to empower the competition authorities of the Member States to be more effective enforcers and to ensure the proper functioning of the internal market, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019L0001&from=EN .

and European competition enforcement authorities is the key. Therefore, it was developed the European Competition Network (ECN), that serves as a platform for the exchange of information aimed at improving coordination in the enforcement of competition rules between national competition authorities and the Commission. This improvement allowed the Commission to focus its resources on enforcing the most serious competition infringements with a cross-border dimension.

In the area of competition, the Actions for Damages Directive[27] was adopted in 2014 in order to heighten the deterrent effect against prohibited agreements (cartels and abuse of a dominant position) and to provide better protection for consumers. It facilitates the process for obtaining compensation for harm caused to citizens or other businesses by an infringement of competition law.
Concerning sanctions, in art. 23 of the Regulation n. 1/2003, the Commission can decide to impose on undertakings and associations of undertakings fines not exceeding 1 % of the total turnover in the preceding business year if, intentionally or negligently, they supplied incorrect or misleading information in response to a request made by the authority, or if they did not submit the required books or records or if they did, but they were incomplete. For each undertaking or association of undertakings participating in the infringement, the fine shall not exceed 10 % of its total turnover in the preceding business year. When the amount of the fine is considered, it should be taken into account not only the gravity of the infringement, but also the duration of the same.

Especially in cases when the undertakings continue to infringe the regulation, under art. 24, the Commission may impose periodic penalty payments not exceeding 5 % of the average daily turnover in the preceding business year per day and per day of delay from the date fixed in the decision in order to compel them to put an end to an infringement. At the EU level, the competition authority is the European Commission that together with the National Competition Authorities enforces also the Merger Regulation n. 139/2004.

Regulation 4064/89[28] was the first legislative framework that laid the foundations of merger control, but it has been modified and updated in order to properly take into account the changes that have characterised the world in those years, especially regarding the introduction of the internet and related

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[27] See Directive 2014/104/EU of the European Parliament and of the Council of 26 November 2014 on certain rules governing actions for damages under national law for infringements of the competition law provisions of the Member States and of the European Union, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0104&from=en .

[28] See Council Regulation (EEC) No 4064/89 of 21 December 1989 on the control of concentrations between undertakings, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31989R4064&from=en .

subjects. It has been replaced by the Regulation n. 139/2004, which regulates changes in the market structure when two or more firms merge, combine or consolidate their businesses into one.

Under Regulation n. 139/2004, mergers and acquisitions which would significantly impede effective competition in the common market or in a substantial part of it, in particular through the creation or strengthening of a dominant position, must be declared incompatible with the common market. In fact, Article 2(3) states that "a concentration which would significantly impede effective competition, in the common market or in a substantial part of it, in particular as a result of the creation or strengthening of a dominant position, shall be declared incompatible with the common market.". As a matter of fact, the merger control rules equally apply to companies based outside the EU, if they do business in the internal market.
In principle, the Commission only examines larger mergers and acquisitions with an EU dimension, meaning that the transaction must be between firms that reach certain turnover thresholds; in general, about 300/400 mergers are typically notified to the Commission each year. In Article 1 of the Merger Regulation, are expressed the thresholds for which a concentration has an EU dimension and it is stated that there can be two alternative ways to reach them. A concentration has a Community dimension if "the combined aggregate worldwide turnover of all the undertakings concerned is more than EUR 5 000 million and the aggregate Community-wide turnover of each of at least two of the undertakings concerned is more than EUR 250 million, unless each of the undertakings concerned achieves more than two-thirds of its aggregate Community-wide turnover within one and the same Member State."[29] Alternatively, if these thresholds are not met, a company has a Community dimension if "the combined aggregate worldwide turnover of all the undertakings concerned is more than EUR 2 500 million; in each of at least three Member States, the combined aggregate turnover of all the undertakings concerned is more than EUR 100 million; and in each of at least three of these Member States the aggregate turnover of each of at least two of the undertakings concerned is more than EUR 25 million; and the aggregate Community-wide turnover of each of at least two of the undertakings concerned is more than EUR 100 million, unless each of the undertakings concerned achieves more than two-thirds of its aggregate Community-wide turnover within one and the same Member State."[30]

Smaller mergers which do not have an EU dimension because they do not meet the thresholds mentioned above may be reviewed by Member States' competition authorities. There is a referral

[29] Ibid. Article 1(2).

[30] Ibid. Article 1(3).

mechanism in place which allows the Member States and the Commission to transfer the case between themselves upon request of the companies involved and of the Member States. The Commission must be notified of any merger and acquisition with an EU dimension prior to its implementation, therefore, companies may contact the Commission beforehand to see how to best prepare their notification. The review process is triggered when control is acquired over another undertaking.[31]

If the merging firms are not operating in the same or adjacent markets, or if they have only very small market shares not reaching specified market share thresholds, the merger will typically not give rise to significant competition problems: the merger review is therefore done by a simplified procedure, involving a routine check. The market thresholds are either below 15% of the combined market share if the companies compete in the same market and 25% if the firms compete in vertically related market. Above those market share thresholds, the Commission carries out a full investigation.

The Commission has in place a two-step procedure just like the US system. After the notification, the Commission has 25 working days to analyse the deal during the phase I investigation. More than 90% of all cases are resolved in Phase I, generally without remedies. During this phase, the parties are required to provide information and questionnaires that they have been given to competitors or customers seeking their views on the merger, as well as other contacts with market participants, aimed at clarifying the conditions for competition in a given market or the role of the companies in that market. The Commission keeps the parties informed about the progress in its analysis. Towards the end of phase I, a "state-of-play meeting" is typically held, where the Commission informs them about the results of the phase I investigation. If there are competition concerns, companies can offer remedies, which extends the phase I deadline by 10 working days. There are two main conclusions of a phase I investigation: the transaction is cleared, either unconditionally or subject to accepted remedies; or it still raises competition concerns and the Commission opens a phase II investigation.

If the Commission has concerns that the merger or acquisition may significantly affect competition, the transacting companies may offer remedies, referred to as "commitments", for example proposing certain modifications to the project that would guarantee continued competition on the market. Companies may offer remedies in phase I or in phase II. The Commission analyses whether the proposed commitments are viable, and sufficient to eliminate competition concerns. It also takes into account the views of market participants in a market test. If remedies are accepted, they become

[31] Ibid. Article 3(1).

binding upon the companies. An independent trustee is then appointed to oversee compliance with these commitments.

Phase II is an in-depth analysis of the merger's effects on competition and requires more time. It is opened when the case cannot be resolved in phase I. A phase II investigation typically involves more extensive information gathering, including companies' internal documents, extensive economic data, more detailed questionnaires to market participants, and/or site visits. In phase II, the Commission also analyses claimed efficiencies which the companies could achieve in case the transaction is cleared. If the positive effects of such efficiencies for consumers would outweigh the mergers' negative effects, the acquisition can be allowed. In order to be taken into account, efficiencies must fulfil strict conditions and it is for the transacting companies to prove that they are met. If, after such a market investigation, the Commission concludes that the planned acquisition will likely impede competition, it sends a statement of objections (hereinafter also SO) to the notifying parties, informing them of the Commission's preliminary conclusions. Parties then have the right to respond to the SO in writing within a certain period and to consult the Commission's case file and to request an oral hearing which is conducted independently by the competition Hearing Officer.

From the opening of a phase II investigation, the Commission has 90 working days to make a final decision on the compatibility of the planned transaction with the Merger Regulation. This can be extended by an additional 15 working days if the notifying parties offer commitments later in phase II. Further extensions of up to 20 working days can be granted on request by, or with the agreement of, the notifying parties. If the notifying parties do not provide an important piece of information which the Commission has requested from them, the clock can be stopped until such missing information is supplied. The Commission strives to align the timing of the investigations with other authorities worldwide whenever possible. It is cooperating actively with other agencies such as the US Federal Trade Commission and the Department of Justice.

Following the phase II investigation, under Article 8, the Commission may either: unconditionally clear the acquisition; or approve the acquisition subject to remedies; or prohibit it if no adequate remedies to the competition concerns have been proposed by the parties. All final decisions - in both phase I and phase II - are published on the competition website, after references to the companies' confidential business information has been removed. All decisions and procedural conduct of the Commission are subject to review by the General Court and ultimately by the Court of Justice. The companies or other parties demonstrating an interest can appeal within two months of the decision.

This guarantees an independent judicial oversight and ensures that all rights of defence available to the companies are fully respected.

However, in recent years, market developments have resulted in a gradual increase of concentrations involving firms that have or could develop a significant competitive role on the market even if they generate little or no turnover at the moment of the acquisition. These developments appear particularly significant in the digital sector, where services regularly launch with the aim of building up a significant user base and/or commercially valuable data inventories, before seeking to monetise the business. In fact, in industries where innovation is an important parameter of competition, there have been transactions involving innovative companies conducting research and development projects and with strong competitive potential, even if these companies have not yet finalised, let alone exploited commercially, the results of their innovation activities.

As described in the previous chapter, killer acquisitions fit under this profile and have been conducted for these purpose or others such as with the aim of gaining access to highly valuable assets, such as raw materials, intellectual property rights, data or infrastructure.

Therefore, the European Commission has to address this emerging phenomenon of killer acquisitions in order to continue to achieve its goal of a common market in which innovation and especially competition are both protected and promoted. In chapter three, it will be given an overview of changes made in the past and possible changes that could be made in the future to catch more competently killer acquisitions. Later, in chapter four, it will also be given a broader perspective on how the European Commission has tried to implement the Merger Regulation by proposing a change in the Article 22 as to better control acquisitions in the digital sector.

Regarding GAFAM, which are the most active firms in the high-tech sector, the European Commission has made a first step in order to better control the power over the market at stake. An initial implementation of the current regulatory framework can be found in the Digital Markets Act[32] that addresses especially the firms that act as gatekeeper in a market, which refers to a company that exercise a dominant position in the market. This will also be analysed in the fourth chapter in order to give a complete overview of changes made in order not only to regulate any anti-competitive

[32] See European Commission, "Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act), Brussels, 15.12.2020, COM(2020) 842 final, 2020/0374 (COD) available at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020PC0842&from=en .

behaviour from large firms that may acquire nascent ones, but also to control the power exercised by companies that have a dominant position in the high technology market.

In fact, potential killer acquisitions have and will remain on the radar of the European Commission for some time to come. Competition Commissioner Margreth Vestager, who has noted concerns regarding killer acquisitions from the beginning, has been appointed as 'Executive Vice-President for a Europe fit for the Digital Age' with a mandate “to ensure that Europe fully grasps the potential of the digital age and strengthens its industry and innovation capacity”. Her mission has been to safeguard a competitive and free market especially for smaller firms and she has shared relevant general market knowledge from the digital sector to help ensure new legislative proposals contribute to fair and open competition. Commissioner Vestager is not afraid of fighting Big Tech, not only by issuing restrictive rules to promote a competitive market, but also by fining some of them with high administrative sanctions, maybe the higher the European Commission has ever given.
Therefore, the era of self-regulation of Big Tech may be nearing its end, but for this to happen, in addition to legislation aimed at enhancing the aspect of responsibility and respect for human rights, a virtuous mechanism of sharing and mutual enforcement between authorities must be triggered, especially in the field of data protection, industrial protection and competition.

2.4 The competition law for acquisitions: the Italian Case.

After analysing the American and the European context, this paragraph aims at further getting a deeper insight into the Italian Competition Law.

In Italy, the most important competition authority is the ‘Autorità Garante della Concorrenza e del Mercato’ (hereinafter also AGCM or Authority), which is an independent administrative authority that carries out its activities and takes decisions independently of the executive power. It was established by Law n. 287 of 10 October 1990 on ‘Rules for the protection of competition and the market’ or also “Competition and Fair Trading Act”.[33] The articles contained in the Law 287/90 shall apply to agreements, abuses of dominant position and concentrations.

[33] See AGCM, Law no. 287 of October 10th, 1990, COMPETITION AND FAIR TRADING ACT, https://en.agcm.it/en/scope-of-activity/competition/detail?id=3b426468-e51f-4bc1-b1ee-b1f4bd65d9e7&parent=Legislation&parentUrl=/en/scope-of-activity/competition/legislation .

Concerning the agreements and abuses of dominant position, they shall be prohibited when their object or effect is to prevent, restrict or distort competition within the national market by fixing prices or other contractual condition, limiting production, denying access or technological progress, applying different conditions to trading partners "thereby placing them at an unjustifiable competitive disadvantage" (art. 2). The agreements may be allowed only in the case in which they lead to a substantial benefit for consumers. The source of concern, from the point of view of the operation of the market, is that a merger or an acquisition of another undertaking which was previously independent might substantially reduce competition on a lasting basis, and hence put the parties in a position to raise prices or impose conditions that are detrimental to consumers.

Regarding concentrations, they are subject to notification to AGCM in order to ascertain whether they create or strengthen a dominant position on the domestic market with the effect of eliminating or restricting competition appreciably and on a lasting basis, therefore, based on this notification they could be authorized or prohibited.

Section 16(1) of Law 287/90[34] requires prior notification of all mergers and acquisitions involving undertakings whose aggregate turnover in Italy exceeds 492 million euro; and when the aggregate domestic turnover of each of at least two of the undertakings concerned exceeds 30 million euro. However, thresholds are adjusted every year to take account of increases in the GDP deflator index, and the resolution is published in the Authority's Bulletin after the increase in the index has been officially announced. The thresholds were last updated on March 22, 2021 and, therefore, now the AGCM requires prior notification of all mergers and acquisitions involving undertakings whose aggregate turnover in Italy exceeds 511 million euro; and when the aggregate domestic turnover of each of at least two of the undertakings concerned exceeds 31 million euro. This applies under the assumption that there is the absence of conditions that place the merger under the competency of the EU Commission. However, the AGCM reserves the right periodically to review the types of operations that may be of relevance.

In Section 5 of Law 287/90, it is specified that the pre-merger notification from companies that enter a transaction is not compulsory in the case of a bank or financial institution which acquires shares in an undertaking when constituted, or when its share capital is raised, with a view to re-selling them on the market, provided that it does not exercise any voting rights vested in those securities while it holds

[34] This Section was amended by Section 1(177) of Law no 124/2017 (Official Gazette No. 189 of 14 August 2017).

them; and in no case the holding period shall exceed 24 months. Furthermore, the notification is not necessary for operations which have as their main object or effect the coordination of the actions of independent undertakings shall not constitute concentrations; for example, in the case of "infragroup" mergers, which are operations carried out by undertakings controlled by a single firm, the transaction has not to be notified when the parties involved do not carry out an economic activity.

The AGCM examines all of the operations it is notified of in order to determine their effects on competition. When a merger is deemed to represent the creation or strengthening of a dominant position that substantially reduces competition on a lasting basis, its realization is prohibited as stated in Section 6 of the Law 287/90.

The Act also provides, in addition to prohibiting mergers and acquisitions which restrict competition, a further possibility. Wherever possible, a merger or acquisition which restricts competition may be authorised by the authority provided that the original project is amended in order to remove the distortive aspects. For example, such an operation may be authorised provided that a particular production facility or part of the acquired undertaking is sold to a third party.

In order to meet the need of companies for decisions to be taken rapidly and with certainty, a procedure has been identified which will enable the parties concerned to engage in productive discussions in the phase prior to the formal notification of mergers and acquisitions, and, at the same time limit, the need for the AGCM to suspend statutory deadlines, bringing benefits in terms of streamlining the administration and greater promptness in issuing decisions by the Authority. Its offices are therefore at the disposal of the parties concerned for preliminary discussions of any problems connected with the formal notification of prospective mergers, provided that they exceed the second threshold provided for the obligation to submit prior notice pursuant to Section 16(1) of the Law.

The procedure set out in order to revise the transaction by the AGCM is similar to the procedure conducted by the European Commission and to the American one. In fact, also the AGCM executes a phase-by-phase review.

In Section 16(3) of the Law 287/90, it is stated that the AGCM has to inform the Prime Minister and the Minister of Trade and Industry within five days of receiving notification of a concentration. If the Authority considers that a concentration may be subject to prohibition, within 30 days of receiving

the notification or of being informed thereof by any other means, it has to start the investigations. When formal notification is received of a concentration in respect of which the Authority deems the investigation unnecessary, it shall notify the undertakings and the Minister of Trade and Industry of its conclusions on this matter, within 30 days of receiving notification (Subsection 4). The AGCM may commence the investigation beyond the time limits when the information notified by the undertakings is seriously inaccurate, incomplete or untrue (Subsection 7). Within 45 days of the commencing of the investigation, the Authority shall notify the undertakings concerned, and the Minister of Trade and Industry of its conclusions. This period may be extended in the course of the investigation for a further period of not more than 30 days whenever the undertakings fail to supply the information and the data in their possession upon request (Subsection 8).

In Italy, in the case in which the investigation conducted brings up any infringement of the law, the Authority can set a deadline within which the undertakings concerned must end the infringements and it may decide to impose a fine up to 10% of the turnover of each undertaking or entity during the prior financial year. If there is non-compliance with what said above, the AGCM shall impose a fine of up to 10% of the turnover or, if this has already been imposed, a fine of no less than double the penalty already imposed with a ceiling of 10% of the turnover. In cases of repeated non-compliance, the Authority may decide to order the undertaking to suspend activities for up to 30 days.

Regarding mergers and acquisitions, national rules are thoroughly defined by Law 287/90. However, in the past few years, the notification system based on the current firms' dimension has been inadequate in capturing the prospective development of merged firms and in preventing the formation of local monopolies. The challenge comes especially from the digital economy, where we are witnessing an increasingly widespread phenomenon of potential future competitors by large market players, that engage in acquisitions that do not exceed the thresholds for the notification.

Therefore, it is of fundamental importance to strengthen the current merger control system in order to avoid that under-threshold transaction escape the AGCM's scrutiny. In this regard, a solution on which the national competition authority is working on is to add to the current mandatory system of notification by companies the possibility for the Authority to request, giving reasons, the notification of under-threshold transaction of which it has become aware. This solution has already been adopted by some European countries like Germany, Norway, Sweden, Lithuania, and by non-European countries such as the United States and Japan. Nonetheless, it is important to notice that even national competition authorities are working on updating the current merger control system in order to better

address problems like killer acquisition and the growing market power of large companies such as GAFAM.

2.5 Conclusions.

Mergers and acquisitions are a fundamental part of Competition Law in all the regulatory frameworks analysed.

In the US, the antitrust authorities are the Federal Trade Commission and the Department of Justice, which enforce several acts. The most important of them are the Sherman Act, the Clayton Act, then amended by the Hart-Scott-Rodino Act, and the Federal Trade Commission Act. These Acts represents the main pillars on which the US Antitrust Law is grounded and they are implemented by the agencies in order to be up-to-date with the continuously changing environment. Both the FTC and the DoJ are paying attention to the challenges that are present nowadays, especially the ones that concerns mergers and acquisitions in the digital markets. In fact, last year the FTC launched a market study to investigate whether non-reportable past acquisitions by the major tech companies included "killer" acquisitions of nascent competitors. This study was intended to determine if changes to merger control rules are appropriate to cast a broader net and ensure that potentially problematic deals are reviewed proactively.

In the EU, the Commission might rely on a powerful legal regime which is based on the Merger Regulation. This Regulation has laid the foundation for controlling and handling mergers and acquisitions that could lead to anti-competitive concerns. In fact, the European Commission has developed a strategy which has the focus on making Europe more digitalized and ready to the emerging technologies that will revolutionize our tomorrow. There are some key figures like Commissioner Vestager, who has a clear view and mission on how to implement the current regulatory framework. During her mandate in the last few years, she has made more prohibitions while achieving higher intervention rates, she imposed tougher remedies and stricter procedures. The Commission will have to implement merger control by taking into account tougher enforcement, the evolution of innovation as a theory of harm, and the resurgence of conglomerate concerns. In fact, the Commission has tried to implement the Merger Regulation by proposing a change in the Article 22 as to better control acquisitions in the digital sector. These are all challenges imposed by digitalisation, that lie ahead and cannot be avoided, but only regulated.

In Italy, the AGCM is the competition authority which enforces the national law and cooperate with the European Commission in the case in which specific thresholds are exceeded and the national authority is not competent anymore. Also, the AGCM is working on implementing the law in force in order to better catch killer acquisition by intervening, for example, in cases in which, because of the dimension of the market at stake, the thresholds are not exceeded.

After having analysed the current regulatory framework regarding merger and acquisitions, in the following chapters, it will be given a deeper analysis and a more detailed explanation of the changes proposed by the competition authorities and of which changes have been implemented in the last few years in order to better address challenging problems like killer acquisitions and the exponential growth of high-tech firms like GAFAM.

CHAPTER 3: Proposed Changes to Competition Law.

This chapter aims at explaining and discuss the possible implementation of the competition law that would help authorities to catch killer acquisitions. Some proposals or possible changes have already been implemented and some of them have been applied to the law in force nowadays. However, the successful achievements of the competition authorities and proposal that have been put into practice will be analysed in the next chapter.

3.1 Assessment of the dominance: reviewing the thresholds.

Currently the merger notification threshold is based at the EU level on the monetary turnover of the firms involved in the concentration. However, big tech companies usually acquire firms with no or low monetary turnover as their acquisitions mostly take place at the early stage of acquired firms' development. At that stage, digital firms focus more on the growth of their customer base than on the growth of their turnover and profit because they want to take advantage of network effects before any other firm and also because in this way the market may favour them.

As an example, the Facebook's acquisition of WhatsApp shows quite clearly why acquisitions of start-ups might go unnoticed.[35] In 2014, the European Commission stated that: "the Transaction does not have a Union dimension within the meaning of Article 1(2) or Article 1(3) of the Merger Regulation"[36] because the EU turnover of WhatsApp was too low to be considered compared to thresholds set out in those articles. However, the transaction was reviewed because it "fulfils the two conditions set out in Article 4(5) of the Merger Regulation since it is a concentration within the meaning of Article 3 of the Merger Regulation and it is capable of being reviewed under the national competition laws of three Member States".[37] As discussed above, in the initial phase of their business, nascent firms invest more on developing a higher customer base rather than focusing on making profits. In fact, in July 2014, WhatsApp had a user base of over 600 million customers worldwide, but its worldwide turnover was too low to exceed the thresholds set by the European Commission. The high transaction value could have been taken into account when the Commission considered the

[35] See European Commission, Decision of 03.10.2014 declaring a concentration to be compatible with the internal market and the EEA Agreement (Case M.7217 – Facebook/ WhatsApp), Brussels 03.10.2014 C(2014) 7239 final, the document in available at: https://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf .

[36] Ibid. paragraph (9).

[37] Ibid. paragraph (10).

possibility of reviewing this acquisition as it could have given a hint on anti-competitive behaviours. Nonetheless, the acquisition was completed for $ 19 billion, which is such a high price to be paid for a firm that had just started monetizing its business idea.

In fact, the European Commission recognized that Merger Regulation's thresholds were in some ways a blunt and even arbitrary instrument, given that they are intended to capture major concentrations that are deemed to be of EU dimension. Over time, provisions and reforms of the Regulation have progressively expanded the number of concentrations that meet the thresholds. Therefore, in order to allow the review by the European Commission of big tech acquisitions which can have a detrimental effect on welfare, the current monetary turnover threshold could be complemented by additional notification thresholds.[38]

The latter could be based on the value of the acquisition, as is now a case in Germany and in Austria. The German and Austrian competition authorities introduced jurisdictional tests based on transaction value complementary to traditional revenue thresholds. In addition, Germany has proposed new rules to capture the successive acquisition of nascent competitors by digital platforms, in order to address concerns of systematic acquisitions as a foreclosure strategy by dominant companies. France and the Netherlands are also considering new rules that would either include transaction value thresholds or would require mandatory notification of all acquisitions by digital incumbents. Therefore, because the Merger Regulation is a model for many third-country merger regimes, transaction value thresholds in the EU could be added also in other jurisdictions, resulting in a further significant increase in world-wide merger control.

This change of notification threshold would respond to a concern that many start-ups with low revenues, but high growth potential, escape EU merger review because of the inflexible revenue-based jurisdictional thresholds set by Merger Regulation. This concern is particularly acute in the digital sector, because small companies can expand quickly and their competitive significance is often reflected in high transaction values. However, this suggestion raises definitional issues, due to the fact that setting a transaction value threshold presents several challenges. First of all, determining the value of a transaction can be complex and uncertain, also because there are a several possible methodologies for measuring value, such as whether to use market values or book values. In the second place, in order to capture nascent acquisitions, a transaction value test would need to be set at

[38] See European Commission, "Empowering the national competition authorities to be more effective enforcers", Feb. 2016, https://ec.europa.eu/competition-policy/public-consultations/closed-consultations/2015-effective-enforcers_en .

a low level. For example, the US threshold is already low, currently standing at a transaction value of $94 million, but it is argued that the US is missing large numbers of problematic transactions.

It is difficult to conceive of an EU threshold that would both capture potential problematic acquisitions and avoid catching essentially all meaningful transactions in the economy. In fact, in her speech Commissioner Vestager said that: “it’s not easy to set a threshold like that at the right level. If it’s too high, it doesn’t really help, you still end up missing a lot of the cases that matter. On the other hand, if you set it low enough to make sure that you see all those mergers, you risk making companies file a lot of cases that simply aren’t relevant. So right now, changing the merger regulation, to add a new threshold like this, doesn’t seem like the most proportionate solution”.[39] In addition, transaction values may change, often quickly, in response to events that are unrelated to the value of the underlying assets and this could happen for several and unpredictable reasons.

Furthermore, to stipulate a new test based on only transaction value is difficult because the difference between the transaction value of a ‘killer acquisition’ compared to the transaction value of other forms of acquisitions is not really clear. In fact, the merger transaction value is aligned with the merging firms’ monetary turnover in the majority of cases, therefore, this complementary threshold does not imply that all concentrations with a relatively high transaction value over the turnover value should be considered as anti-competitive acquisitions. It merely means that those transactions should be reviewed by the Commission to determine whether the high transaction price reflects the important future revenues expected from the diffusion of the innovation or if it rather reflects the insurance premium for market stability and monopoly rent with a potential competitor being eliminated. In fact, the European Commission understands that actually a company’s turnover does not always reflect its importance in the market. For example, in the digital industry, competition in the future can strongly rely on new products or services that do not have yet generated much sales. Therefore, the Commission will probably consider whether to implement a new threshold that’s based on the value of the merger, not the sales of the companies; however, it is not an easy task.

Moreover, thresholds may very well push down prices because firms with killer acquisition intention seek “cheap” targets, that are usually start-ups conducting early research, but whose research has not reached the maturity where the firm can start gaining value from it due to the perceived uncertainty of its benefits. Therefore, a strategic acquirer may very well try to circumvent even the new

[39] See Margrethe Vestager, " The future of EU merger control", International Bar Association 24th Annual Competition Conference, 11/09/2020, https://ec.europa.eu/commission/commissioners/2019-2024/vestager/announcements/future-eu-merger-control_en .

transaction notification obligations trying to escape the merger review and still pursuing its aim of killing or shelving the innovative idea.

A first consultation by the European Commission on the introduction of transaction value-based thresholds for merger control yielded mixed responses, leading it not to press forward on this issue.[40] In light of this consultation, it is suggested that the time is not yet ripe to include such a transaction value-based threshold into European merger control. Instead, it is stated that the European Commission should review its substantive theories of harm in connection with acquisitions of innovative start-ups by powerful digital platforms.

Other complementary notification thresholds could be based on the market shares of the firms involved in the concentration on the basis of the market notified by the firms, or also on the characteristics of the acquirer, as it was proposed in a paper by Furman et al. in 2019.[41] This report indeed recommends that digital companies designated as having 'Strategic Market Status' should notify all their acquisitions to the relevant competition authority. It is stated that companies with Strategic Market Status are "those in a position to exercise market power over a gateway or bottleneck in a digital platform, where they control other's market access". Therefore, it is acknowledged that the assessment of mergers and acquisitions involving digital companies is made more complex by the multi-sided nature of digital platforms, the role of consumer data and algorithms in these markets, and their dynamic nature. Consequently, the final suggestion is that digital companies that have been designated with a strategic market status should be required to make the competition authority aware of all intended acquisitions.

If the suggestion of adding a complementary notification threshold is accepted, the choice between those different options should be based on a cost-benefit analysis. This analysis could be aided by the different experiences in Member States and should ensure that only the acquisitions which present the highest risks for competition and innovation are notified to competition authorities.

[40] See European Commission, "Consultation on Evaluation of procedural and jurisdictional aspects of EU merger control", Jan. 2017, https://ec.europa.eu/competition-policy/public-consultations/closed-consultations/2016-merger-control_en .

[41] See Furman, J., D. Coyle, A. Fletcher, D. McAuley and P. Marsden, "Unlocking digital competition", 2019, Report of the Digital Competition Expert Panel, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/785547/unlocking_digital_competition_furman_review_web.pdf .

Also lowering thresholds would capture a larger number of transactions, but the issue is that a large number of unproblematic transactions would necessarily be subject to delay and costly review. Merger control is already burdensome and time-consuming. In fact, the Commission annually scrutinizes around 400 transactions, often delaying closing by more than 12 months or longer. Increasing the number of transactions subject to examination would put the Commission under strain and diminish the amount of resources available to assess complex transactions.

Additionally, the thresholds of Member State merger control rules are necessarily lower than those under the Regulation. In part due to concerns that anti-competitive mergers may not be reviewed, various national agencies have in recent years applied their existing thresholds expansively or proposed changes to their respective laws to capture transactions that were previously not notifiable.

In UK, the OFT provides a "share of supply test" in addition to the turnover test.[42] The share of supply test is satisfied if the parties involved in the transaction "supply or acquire goods or services of a particular description and "after the merger or acquisition, supply or acquire 25% or more of those goods or services, in the UK as a whole or in a substantial part of it, provided that the merger results in an increment of that share". For example, when Facebook acquired Instagram in 2012[43], Instagram had no revenues, and was reviewed by the OFT not because of the turnover threshold, but because the requirement of the share of supply test was met. In fact, the British authority stated that: "Facebook's share of supply in the UK of virtual social networking services is over 25 per cent and, given that Instagram is active in the supply of virtual social networking services, the Transaction would result in an increment. Consequently, the share of supply test in section 23 of the Act[44] is met." [45]

The Merger Regulation, however, also contains mechanisms designed to give the Commission jurisdiction over transactions that fall below the thresholds. Under the Regulation case referral mechanism, transactions that are not caught by it may be referred to the Commission under Article 22, therefore at the request of one or more Member States, as previously mentioned in the

[42] See Office of Fair Trading, "Merger Assessment Guidelines", Competition Commission and Office of Fair Trading, Sep. 2010, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/284449/OFT1254.pdf .

[43] See Office of Fair Trading, "Anticipated acquisition by Facebook Inc of Instagram Inc", Case ME/5525/12, 14/08/2012, https://assets.publishing.service.gov.uk/media/555de2e5ed915d7ae200003b/facebook.pdf .

[44] See UK Public General Acts, "Enterprise Act 2002", https://www.legislation.gov.uk/ukpga/2002/40/contents .

[45] Ibid. paragraph 5.

Facebook/WhatsApp case. In fact, the Commission intends to begin accepting more referrals from NCAs of mergers and acquisitions that should be reviewed at the EU level, regardless of whether or not those authorities have the power to do so. Therefore, the European Commission issued the Guidance on the application of the referral mechanism set out in Article 22 of the Merger Regulation to certain categories of cases on March 26, 2021 which will be further discussed in the next chapter.

3.2 A complex relevant market's definition.

The definition of the market is the first step taken by the competition authorities when they assess a concentration. The European Commission describes it as a tool to define the boundaries of competition between the firms by identifying the competitive constraints upon the parties in the merger or in the acquisition. The market definition serves to establish all services and products which are interchangeable or substitutable for the consumers with regards to use, characteristics, and price. The EU process requires the notifying parties to identify the relevant market and to provide the Commission with extensive information about it. The topic of market definition is debated within the EU, in fact, the Commission announced that it is going to initiate a discussion regarding an update of the Notice on Market Definition, introduced in 1997.[46] In December 2019, Commissioner Vestager announced that the EU will review the way it defines markets as a reaction to the increasing digitalization. The Commissioner said that "changes like globalisation and digitisation mean that many markets work rather differently from the way they did 22 years ago. In that time, we've also developed and refined the techniques we can use to define the boundaries of a market and the kinds of evidence we use. And experts have drawn our attention to new challenges with market definition". [47] Therefore, the Commission wants the Notice on Market definition to be "accurate and up to date, and sets out a clear and consistent approach to both antitrust and merger cases across different industries, in a way that's easily accessible."[48]

The new digital economy is based on different underlying principles than the traditional one, and this also applies to the relevant market's definition. Some digital companies comprise in their business

[46] See Official Journal of the European Communities, COMMISSION NOTICE on the definition of relevant market for the purposes of Community competition law (97/C 372 /03), 9/12/1997, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31997Y1209(01)&from=EN .

[47] See Vestager Margrethe, "Defining markets in a new age", Chillin' Competition Conference, Brussels 9/12/2019, https://ec.europa.eu/commission/commissioners/2019-2024/vestager/announcements/defining-markets-new-age_en .

[48] Ibid.

model two or more products, which attract different users. Although their products differ, they are interrelated as the demands for these products are linked. Thus, the platforms with two-sided markets shall be active from both sides if they want to have a successful business. The multi-sided firms are not a new phenomenon, but their relevance has increased with the emergence of the technological companies. An additional problem occurs, when one part of the platform is used for free by its customers, and the other part offers paid services. In this occasion, the interrelation of the two parts of the company becomes even more important because the free side is subsidized by the other part or parts. Thus, the Commission shall establish clear rules whether the different sides of the incumbent business shall be determined as one large market or the business shall be split to smaller sub-markets.

In order to address this problem, it has to be established what kind of multi-sided platforms exist. There are two types of multi-sided platforms: transactional and non-transactional.[49] The former includes platforms where the parties can directly transact between each other, which becomes the product of the platform. For example, in Amazon the two sides are the merchants and the buyers, through the website the merchants offer their goods and the buyers directly buy them. Such companies, observe competitive constraints by other parties, which provide similar products. These companies could be other platforms that connect merchants with buyers and the websites of the merchants themselves. In non-transactional multi-sided platforms, the users from both sides of the platform do not make observable transactions among them. For example, Facebook combines free social networking with the advertisement side. The company perceives different competitive constraints from both sides of the platform: the social network part rivals with other platforms, which provide similar opportunities for the users to share their pictures, thoughts, and projects, while the advertisement part competes not only with social networks but with other services that attract the attention of the relevant customer base. For instance, this type of platforms are video streaming platforms, search engines, information portals, sports sites, and so on.

Based on the above, the transactional online platforms shall be defined as participating in one market, whereas the non-transactional should be defined as separate markets within the platform. These conclusions are compliant with the current practice of the European Commission. However, the Commission has not discussed the issue directly and it follows the same pattern over the years when it reviews concentrations, which involve social media and search engines. For example, in the above-mentioned case of Facebook's acquisition of WhatsApp, the Commission's investigation focused on

[49] See OECD, "Rethinking Antitrust Tools for Multi-Sided Platforms", 2018, www.oecd.org/competition/rethinking-antitrust-tools-for-multi-sided-platforms.htm .

three different relevant markets: consumer communications services, social networking services, and online advertising services.

Regarding the relevant market definition, it is worth mentioning the applicability of the SSNIP (small but significant non-transitory increase of price) test for multi-sided platforms. It is used to discover which are the substitutes for the reviewed products and services in case the price is raised. The multi-sided markets' business model creates difficulties to be examined through such price based quantitative tools, because of the different fees one platform charges its users from the two or more sides of the platform. Furthermore, there is no theoretical guide about how shall be balanced an increase in the price of one side to the other. The problem becomes greater when a side is provided for free, then a 5-10% increase in the price is still zero. The test is not applicable if the price is changed from zero to a positive number either, because it is not perceived as an adequate mathematical alternative. This means that the whole business model will be changed, which includes too many unknowns for a theoretical model to be applied.

A new methodology has been presented as an option to overcome the aforementioned problems: the small but significant non-transitional decrease in quality (SSNDQ) test, which examines the hypothetical scenario in which the zero price is maintained, but the product quality deteriorates. Using it, the Commission could determine the substitutes of the product without the application of an unclear new business model. However, the previously described balancing challenges between the different sides of the platform are also present for the SSNDQ test. In fact, there is no precise measurement of the quality, which allows competition authorities to determine an equivalent of a 5-10% increase in price. Furthermore, the price increase is a logical and intended consequence of high market power and it is possible to assess how the change will reflect the revenues of the company. Also, it is hard to establish whether quality degradation would be profitable and it will rarely be a consequence of monopolist or a dominant firm's intended actions. For instance, in Android decision[50] the European Commission has used a small but significant decrease of quality of the Android operational system (OS) and Android app store to check if the users and app developers would change Android products with other OS or App stores. However, the compared products showed peculiarities, which made the

[50] See European Commission, Decision of 18.7.2018 relating to a proceeding under Article 102 of the Treaty on the Functioning of the European Union (the Treaty) and Article 54 of the EEA Agreement (AT.40099 – Google Android), Brussels 18.7.2018 C(2018) 4761 final, available at https://ec.europa.eu/competition/antitrust/cases/dec_docs/40099/40099_9993_3.pdf .

results questionable. Therefore, the quality of the product is not always an adequate substitute for the price of the product.

Moreover, the application of the SSNDQ test seems ambiguous because the decrease of the quality is not an objective term, unlike the increase in price. The quality could be decreased in multiple ways and a change in quality for one could hardly be observed by others. Presumably, different decreases in quality would create different reactions for the very same user. The European Commission has been criticized by Google[51] for this lack of clarity in the meaning of 'deterioration in quality', even if the authority gave a definition. However, the explanation did not include a singular deterioration of quality, but it has listed different variations[52].

In conclusion, when the Commission reviews a transactional-based platform the company shall be defined as participating in a single product market, but when the company is a non-transactional one, then every part shall be related to a different market. When the features of the examined products allow the SSNIP test to be applied, it shall be preferred. The used alternative would be the SSNDQ, although it needs further development to become a convincing and reliable tool of the Commission.

Another issue with market definition emerges when a dynamic market environment results in fluid, rapidly changing substitutability relationships and possibly partial overlaps between distinct services, sometimes in combination with shifting consumer demands perceptions. In such circumstances, determining substitutability relationships based on current patterns of choice may turn out to be excessively restrictive, resulting in "false positives," while if market boundaries are not considered to be modified, "false negatives" may result. The direction to take may therefore depend on whether competition law intervenes *ex ante* or *ex post*. Merger control certainly intervenes *ex ante* and is meant to protect the future competitiveness of the marketplace. In assessing whether a merger or an acquisition leads to a significant impediment to effective competition, competition authorities will take a forward-looking approach. However, the question of how broadly to construe the concept of potential competition may arise. Market definition is meant to determine the degree of market power at the time the conduct under examination took place in order to assess whether it has been used to strategically raise market barriers to entry. Competition agencies must therefore determine the set of substitutes as well as the innovation and changes in the market predicted by the parties at the time of

[51] Ibid. Recital 296.

[52] In the Recital 286 of the case, the Commission states that the deterioration in quality was referred to "search functions within the store, presentation of the results, offer of special deals, update features, etc."

the abuse. Therefore, in merger and acquisition cases, competition authorities need to make their own assessment of the future evolution of the market and of technology.

Digital platforms are accessible from multiple devices such as mobile phones, tablets or computers. These devices are the access point to consumers and often function better if services from the same ecosystem are used on all of them. Control over multiple devices allows a platform to become a gatekeeper in terms of access to consumer data and capacity to deliver content and services. From a consumer's perspective, markets for specific products or services will persist. However, if the firms' lock-in strategies are successful, consumers are drawn into ecosystems which they find difficult to leave. Therefore, a market for ecosystems might have to be defined.

3.3 A new definition of market power and innovation as a theory of harm.

The concept of market power is used to identify cases of market dominance and, traditionally, it has been measured by market shares, for example by the ratio of sales of a firm to the total sales in the market. Market dominance has been assumed when the market share was above a certain threshold. However, for digital platforms the presence of network effects does not allow the prices to necessarily represent the value of the good or service to the consumers or to the firms which are selling them, so that the percentage of sales does not make much sense in this case. Therefore, the concept of market share is often not a useful concept to measure market power especially in the case of digital platforms. For two-sided platforms, there can be market power even in an apparently fragmented marketplace. Any discussion of market power should look at the access to data that the presumed dominant firm has, but that competitors do not, as well as the long-term viability of any such unequal access to data. Competition authorities should develop an analytical framework to make this assessment as objective as possible. Therefore, in digital markets there is no single parameter that would enable competition authorities to measure market power, or to declare that a firm is dominant, even as a rough approximation.

One of the first issues which competition authorities face when they analyse acquisitions of nascent competitors in the digital industry is measuring market power held by the merging parties, which often requires the use of novel metrics. Since many digital services are offered for free, it may be impossible to calculate market shares in terms of turnover and alternative metrics may be more suitable, such as the shares of volume of transactions or shares of users. In each case, the Commission

tries to understand the most representative metric for the respective industry or market. For example, in the Note by the European Union[53] on the OECD's paper "Start-ups, killer acquisitions and merger control", it is stated that the Commission may analyse the share of volume of transactions which can be based on the number of clicks, number of messages sent in a communication app, time spent on a platform/app, etc. In addition, the Commission may also rely on the share of users for which it may be necessary to determine which type of users is the most representative, such as registered users, monthly active users (MAU) or daily active users (DAU), and to account for multi-homing of some users.

Furthermore, it is also important to understand how indicative market shares are of market power in each particular case. In constantly changing markets with short innovation cycles, large market shares may be fleeting, however, they may be more representative of market power in other markets, such as the digital one, with deep-rooted incumbents, high barriers to entry and considerable switching costs.

However, the vast majority of killer acquisitions are motivated by the willingness of the acquiring company to increase their market power and strengthen their already established dominant position over the nascent firm. In fact, especially in the high-tech industry, where technologies and markets evolve quickly, the potential competition captured by entry barriers would probably be a better indicator of market power than the existing competition captured by market shares. When reviewing big tech acquisitions, antitrust authorities should mainly analyse whether the acquired firm could be a potential competitor and represent a significant threat to the acquirer in the future.

In that regard, in the Horizontal Merger Guidelines the Commission declares that: "For a merger with a potential competitor to have significant anti-competitive effects, two basic conditions must be fulfilled. First, the potential competitor must already exert a significant constraining influence or there must be a significant likelihood that it would grow into an effective competitive force. Evidence that a potential competitor has plans to enter a market in a significant way could help the Commission to reach such a conclusion. Second, there must not be a sufficient number of other potential competitors, which could maintain sufficient competitive pressure after the merger." [54]

[53] See European Union, "Start-ups, killer acquisitions and merger control – Note by the European Union", Jun. 2020, https://one.oecd.org/document/DAF/COMP/WD(2020)24/en/pdf .

[54] See European Commission, Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (2004/C 31/03), Official Journal of the European Union, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52004XC0205(02)&from=EN .

Furthermore, innovation should be taken into consideration when measuring market power. Innovation in the digital sector is very different from innovation in other industries. For example, a new platform can be a mixture of new features, new processes and new technologies arranged in a unique and innovative way to support a business idea. In addition, innovation cannot be stopped, products are in constant evolution and services are continuously updated and innovation places fewer importance on formal intellectual property protection, such as patents or copyrights. The benefits of innovation are achieved by being "first in the market" with a service or a product and the ability to growth a user base in a short period of time.

When reviewing a merger or an acquisition, the Commission assesses its impacts on all the parameters of competition such as prices, output, choice and quality, but also innovation. In fact, in the Note by the European Union on the OECD's paper "Start-ups, killer acquisitions and merger control"[55], the Commission states that: "In markets where innovation is an important competitive force, a merger may increase the firms' ability and incentive to bring new innovations to the market and, thereby, the competitive pressure on rivals to innovate in that market. Alternatively, effective competition may be significantly impeded by a merger between two important innovators, for instance between two companies with 'pipeline' products related to a specific product market. Similarly, a firm with a relatively small market share may nevertheless be an important competitive force if it has promising pipeline products."

Given the importance of innovation in the digital sector and the risk that this innovation becomes a monopoly of the Big Tech that make more and more acquisitions of nascent firms, competition authorities should directly assess the effects of a concentration on innovation. In fact, according to Bourreau and De Streel[56], there is a 'call' for a new innovation-based theory of harm in merger control. Essentially, in their view, the European Commission should focus on the risks of cannibalisation effects, meaning that it should assess whether there could be a plausible scenario where the acquired firm, using its innovation, could 'eat into' the market of the acquirer, and if there is no such possibility, then the inquiry does not need to proceed further. If this scenario exists, the competition authority should ascertain how the post-merger cannibalisation effects influence the incentives of the incumbent, by therefore understanding whether the gains to be expected from letting the innovation onto the market are larger than the losses to be incurred.

[55] Ibid.

[56] See Bourreau Marc and De Streel Alexandre, « Digital Conglomerates and EU Competition Policy, Mar. 2019, http://www.crid.be/pdf/public/8377.pdf .

In answering this question, it has to be taken into account the market position of the incumbent, as the more market power the incumbent holds, the larger the anticipated loss will be. After understanding if the incumbent would have an incentive to delay or cancel potential innovation, the Commission should inquire directly into the business plans of the incumbent even if this is rather uncommon under merger control. According to Bourreau and De Streel, the incumbent should be able to give a clear and convincing explanation why it will embrace, and not shelve, the entrant's potentially disruptive innovation. Also, the competition authority could request a commitment along those lines, and if the acquirer does not give a convincing explanation or a commitment, the merger should be prohibited. In addition, the Commission should also consider the existence of a bigger plan, meaning an overall strategy of systematically acquiring fast-growing potential competitors.

Hence, the effects on innovation cannot solely be assessed via the effects on competition. When reviewing big tech acquisitions, competition authorities should take into account whether the risk of reduction of potential competition when the acquiring firm gains more from maintaining its dominant position through the acquisition than the acquired firm can earn by entering the market. This is likely to happen when the acquired firm represents a significant threat to the acquiring firms, which is often the case when the former develops products which are substitutes to the ones of the latter. It should also be taken into account the risk of elimination of the innovation that was being developed by the acquired firm when the acquiring firm gains more from killing such innovation than by developing it, which is the case mentioned above. To assess both risks, competition authorities may mainly look at the degree of substitutability or complementarity between the existing and future products of the acquired firm and those of the acquiring firms, and at the degree of synergies between the innovation capabilities of the acquired firm and those of the acquiring firms. When there are strong complementarities between products and/or strong synergies between innovation capabilities, big tech acquisitions may lead to a decrease of competition coupled with an increase of innovation. As a result, competition authorities may have to arbitrate a trade-off between competition and innovation and may also decide which types of innovation they want to promote.

3.4 Reviewing the substantive assessment.

The substantive test in the original form of the Merger Regulation (4064/1989) was based on the concept of dominance. It prohibited mergers that: "create or strengthen a dominant position as a result of which effective competition would be significantly impeded". The old substantive test invited two

alternative interpretations. This first version interpreted the test as a cumulative two-tier test: a concentration is prohibited if (1) it leads to the creation or strengthening of a dominant position as well as (2) if the effect of such change in market structure amounts to a "significant impediment of effective competition". Therefore, dominance is a necessary but not sufficient condition to prohibit a merger. The alternative interpretation was that mergers that create or strengthen dominance automatically also impede effective competition, which implies that dominance is both necessary and sufficient.

The Merger Regulation 139/2004[57] has changed this substantive test, referred to as the SIEC test, as follows: "A concentration which would Significantly Impede Effective Competition, in particular by the creation or strengthening of a dominant position, in the common market or in a substantial part of it shall be declared incompatible with the common market." However, a dominance-based test is logically flawed since dominance is meaningless in economic terms. A firm is dominant if it can behave independently to an appreciable extent, which means that its decisions should be fairly insensitive to actions and reactions of competitors, and, ultimately, consumers.

In economics, sensitivity is typically measured by elasticity. The rivals' price and quantity elasticity measures, respectively, the percentage change in rivals' prices and quantities that follow from a one per cent change in the allegedly dominant firm's price. If the rivals' price and quantity elasticity are low, the firm may set its price independently of its competitors to an appreciable extent. Likewise, a firm may have the power to behave independently of customers if the demand facing the allegedly dominant firm is relatively inelastic. The legal definition of dominance is thus very close to the economic notion of market power. Market power refers to the ability to influence important parameters of competition. In particular, a firm that is capable of profitably and durably increasing prices high above the competitive level holds significant market power. Accordingly, the relevant question in competition cases is not whether market power is present, but whether it is important, substantial. A firm facing low demand elasticity and low rivals' price and quantity elasticities can behave independently of competitors and consumers to an appreciable extent. This is reflected in its ability to increase prices above competitive levels significantly. It thus follows that a dominant firm is one that enjoys substantial market power.

[57] See European Commission, "COUNCIL REGULATION (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation)", Official Journal of the European Union, Jan. 2004, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32004R0139&from=EN .

In fact, although dominance was not defined in the Regulation, it was interpreted flexibly by the Commission and developed extensively by the EU Courts. The Commission's appraisal generally focused first on single-firm market power, before assessing the risk of tacit collusion or coordinated effects. The Commission measured the impact of a concentration against the counterfactual, which is the situation that would have existed in the absence of that concentration, focusing on the change effected to the pre-transaction market structure and competitive environment.
Over time, the Commission's practice evolved: greater emphasis was placed on the nature and extent of competition between the merging companies, given that the Commission more systematically focused on evaluating the unilateral effects of a merger, even within the constraints of a dominance test. The SIEC test is useful in plugging an enforcement gap and because the old dominance test did not cover all anti-competitive mergers of concern. Moreover, under the SIEC test a framework exists for assessing a transaction's effect on potential competition and innovation competition.

Moreover, while dominance is not a pre-requisite for establishing competition concerns, it is mentioned as an important example of a problematic merger. In fact, in each of its investigations, the Commission tests all plausible theories of harm. They are determined based on the specific circumstances of each case: the parties' activities, functioning of the industry, submissions and evidence from the parties and third parties, etc. Like in other mergers, the theories of harm in killer acquisitions or acquisitions of nascent competitors may be horizontal (for example, related to potential competition or innovation), vertical (for example, related to access to data, technology or platforms) or conglomerate (regarding the offering of a range of products by the merged entity, leading to foreclosure of competitors). Particularly in the digital sector, acquisitions of nascent competitors are characterised by large incumbents' purchases of nascent firms, such transactions may create or strengthen the dominant position of the acquirer.

However, in the report conducted by the three special advisers appointed by Commissioner Vestager to analyse the challenges of digitisation for EU competition policy, it is proposed to review certain theories of harm.[58] In particular, the report recommends to apply to a greater extent horizontal analysis, where a dominant acquirer operating a multiproduct platform or ecosystem and benefiting from strong network effects acquires a nascent target in the same users' space. The report also argues

[58] See Crémer, J, Yves-Alexandre de Montjoye, H Schweitzer, "Competition Policy for the Digital Era", European Commission, and Directorate-General for Competition, 2019, https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf .

that in such cases the notifying parties should bear the burden of showing that the adverse effects on competition are offset by merger-specific efficiencies.

Another interesting suggestion is related to the substantive assessment of conglomerate mergers. As the majority of the GAFAM's transactions for the last decade have not been horizontal, if an acquisition is to be scrutinized, then presumably it should be assessed as a conglomerate or vertical concentration. In the European Commission's Non-Horizontal Guidelines[59], it is stated that such concentrations are less likely to be anti-competitive than the horizontal ones, because they do not entail the loss of direct competition and there is significant scope for efficiencies. However, even if this is true for traditional markets, in the digital sphere this conclusion might lead to underenforcement, because of the characteristics of the industry. New products in the digital economy are easier to develop compared to ones in the physical markets, because there is no need for new production plans, machines, new specially trained employees for the production, etc. Also, the products could reach its customers immediately, because of the absence of the need for physical delivery. These features suggest that in a digital conglomerate acquisition the loss of competition might not be that easily written off, although the target is not a direct competitor yet.

Therefore, a new approach is needed for digital non-horizontal concentration. According to Crémer et al.[60], it is suggested to: "inject some horizontal elements into the conglomerate theories of harm and try to answer the following questions: (i) Does the acquirer benefit from barriers to entry linked to network effects or use of data? (ii) Is the target a potential or actual competitive constraint within the technological/users' space or ecosystem? (iii) Does its elimination increase market power within this space notably through increased barriers to entry? (iv) If so, is the merger justified by efficiencies?".

The described test does not modify the SIEC test, it just represents an evolution of it. The first relates to the fact that the acquirer might be enjoying several benefits due to its dominant position that has been strengthen with network effects and greater availability of data. The second question to answer according to the suggested assessment process is related to the potential or actual competitive constraint within the technological user space or ecosystem, which is complementary to the assessment of the relevant market. By using it, competition agencies could evade the narrow market

[59] See European Commission, "Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings (2008/C 265/07)", Official Journal of the European Union, 18/10/2008, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52008XC1018(03)&from=EN .

[60] Ibid.

definition by having a broader picture to explore the potential competition. The third question considers the market power of the merged entity after the transaction is approved. However, as the digital platforms frequently are provided for free, the price increase could not be used as a criterion of market power, as discussed above. If the answers to the first three questions is positive, then the acquisitions shall be determined as anticompetitive. However, the fourth question gives the parties a chance to justify the transaction by proving efficiencies and if they exist the concentration shall be approved. The fourth step provides a significant change in the assessment process of conglomerate acquisitions. In fact, currently, it is the European Commission that considers the possible efficiencies and not the parties. Thus, this suggestion also takes into account the revision of the burden of proof for efficiencies. That would allow the Commission to concentrate on the assessment of the competitive constraints in the technological space.

In fact, under well-established jurisprudence of the EU Courts, the Commission bears the burden of demonstrating that a concentration should be approved or prohibited. Various commentators have suggested that the burden of proof should be reversed, so that acquirers of nascent competitors should be required to show that a given transaction is not anti-competitive. However, this proposal would have far-reaching consequences and it could be difficult to be implemented. First of all, because courts and authorities should rely on presumptions only where conduct is self-evidently harmful to competition, and anti-competitive presumptions should be used restrictively, otherwise, competition authorities might prohibit transactions or conduct that may, in reality, be procompetitive. Secondly, sometimes the prospect of being acquired is a powerful incentive for many start-ups to innovate and invest. Such companies engage in innovation because they anticipate being acquired by a larger firm that can incorporate their technology. Reversing the burden of proof could lessen those incentives and diminish a substantial motivation for investors to fund riskier initiatives and let new markets into the market. In addition, even with a presumption of anti-competitive harm arising from digital mergers, the Commission would still need to quantify and prove the extent of such harm, otherwise, merging parties could not demonstrate how that harm would be outweighed by quantifiable efficiencies arising from the merger. Finally, a presumption of harm against acquisitions of nascent competitors by digital platforms would risk infringing fundamental rights to dispose of property and to conduct business, as stated by Levy et al. in their paper.[61] For these reasons, it may be preferable

[61] See Levy, Nicholas, et al. "Reforming EU Merger Control to Capture 'Killer Acquisitions' - The Case for Caution." Competition Law Journal, vol. 19, no. 2, July 2020, p. 51-67.

to maintain the current framework, where an adverse finding can be rebutted with evidence of countervailing efficiencies.

3.5 Conclusions.

The aim of this chapter was to analyse and discuss any possible relevant flaw of the current regulatory system for merger control, where issues arise because of the emerging phenomenon of killer acquisitions. In fact, merger control has not many flaws *per se,* but acquisitions of nascent firms and new technologies require a different approach to be implemented by the competition authorities. As discussed, it was proposed a new method in order to evaluate transaction that traditionally took into account turnover thresholds. The new method consists in assessing mergers and acquisitions based on a threshold set on the value of the transaction. The Commission said that such a threshold is difficult to be set for the constantly changing nature of those transaction. However, this method is already used in countries like Germany and Austria and this topic in particular will be further analysed in the next chapter. Furthermore, new technologies have given people a simpler life, however, they have also brought many challenges especially for regulators. Due to their flexible nature, digital platforms and *similia* cannot 'fit' inside the definition of a relevant market and therefore, competition authorities will have to conduct multiple parallel analysis when assessing the relevant market of one or more companies.

In addition, the concept of market power needs to be reviewed in order to be up to date for the new digital economy. In fact, in the technological sector, it is difficult to understand when a firm is dominant since revenue cannot be considered a parameter anymore, therefore, competition authority should take into account several factors when measuring market power, including innovation.

Finally, digitalisation has brought many new challenges and therefore, it has posed the need to revise the theories of harm. Since the SIEC test is not satisfactory alone, a new assessment method should be implemented according to Crèmer et al. and in addition, it was taken into account the possibility of shifting the burden of proof to the acquiring party.

Therefore, these proposals have been aimed at supporting the competition authorities to better scrutinize killer acquisitions. However, not all of them are implementable and feasible, and some of them have more flaws than benefits. In the next chapter, it will be given an overview of the methods

that have already been implemented and of new rules introduced in some legislations that have helped competition authorities to gain a more digital perspective by changing their approach in the technological economy.

CHAPTER 4: Potential solutions and recommendations for killer acquisitions.

4.1 The German Experience.

In the first paragraph of the previous chapter, it was addressed the problem of setting a merger notification threshold only based on the worldwide turnover of the firms involved in the transaction. It was considered the possibility of adding new complementary thresholds: for example, a threshold depending on the value of the transaction would enable the investigation of high value and low turnover transactions that might represent a threat to potential competition. However, as already discussed, there are some issues in setting such a threshold such as the transaction value changes with time, the value is complex to be determined, and it could be complicated to geographically allocate the transaction value.

Despite these concerns, this kind of complementary threshold has already been implemented in countries like Germany and Austria. In fact, in 2017, Germany's competition authority, the Bundeskartellamt, has amended the Competition Act (GWB), in particular Section 35 on the Scope of Application of the Control of Concentrations.[62] This Section declared that:

"(1) The provisions on the control of concentrations shall apply if in the last business year preceding the concentration 1. the combined aggregate worldwide turnover of all the undertakings concerned was more than EUR 500 million, and 2. the domestic turnover of at least one undertaking concerned was more than EUR 25 million and that of another undertaking concerned was more than EUR 5 million.

(1a) The provisions on the control of concentrations shall also apply if 1. the requirements of paragraph 1 no. 1 are fulfilled, 2. in the last business year preceding the concentration a) the domestic turnover of one undertaking concerned was more than EUR 25 million and b) neither the target undertaking nor any other undertaking concerned achieved a domestic turnover of more than EUR 5

[62] See Section 35 - Act against Restraints of Competition, introduced with effect from 9 June 2017 by the Ninth Amendment to the Act (Federal Law Gazette I 2017, 1416) https://www.gesetze-im-internet.de/englisch_gwb/englisch_gwb.pdf .

million, 3. the consideration for the acquisition exceeds EUR 400 million and 4. the target undertaking pursuant to no. 2 has substantial operations in Germany."

This additional threshold has been in force since June 2017; however, it has been reported that the number of notified transactions has not radically changed. In fact, the same Act was amended again and in January 2021 it has entered into force the Digitalization Act, the GWB10[63]. This Act extends the scope of German competition law to address enforcement challenges in the digital economy and raises the thresholds set by the previous amendment of the Act. One of the most important changes is the introduction of a new quasi-regulatory tool that prohibit certain conduct patterns of platforms on multi-sided markets and networks, combined with a shortening of the judicial review process. In addition, it is present a new *ex ante* mechanism that prohibits any conduct that may amount to a tipping of the market as "unfair impediment of competitors". Finally, merger control thresholds are raised in order to significantly reduce the number of notifiable transactions. Therefore, these changes will reduce the number of mergers and acquisitions filed to the German competition authority significantly, as well as enable the Federal Cartel Office's (hereinafter also FCO) to have new powers to review transactions that it could not investigate previously.

The GWB10 gives the FCO new power to tackle certain patterns of conduct of companies with "paramount importance for competition across markets" (PICAM). This power is applicable in particular to large digital platforms and tech companies, and also to platforms that have a strong market position on two or more markets. The introduction of this new tool is fundamental especially for killer acquisitions because it allows the FCO to intervene at an early stage in the case of start-ups acquired by large digital companies threatening competition on markets where they already exercise a significant, or dominant, market power.

This Act has also added internet-specific criteria regarding the traditional control of abusive conduct: access to data relevant for competition, and the issue of whether a platform has the so-called power of intermediation will now be taken into account when assessing market power.

Once the FCO has found that a company is PICAM, it can, in a later step, prohibit certain types of conduct considered as abusive, including for example: self-preferencing – when a company gives

[63] See Bundeskartellamt, "Act Amending the Act against Restraints of Competition for a focused, proactive and digital competition law 4.0 and amending other competition law provisions", Bonn 19/01/2021, Federal Gazette, https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Pressemitteilungen/2021/19_01_2021_GWB_Novelle.pdf?__blob=publicationFile&v=3 .

preferential treatment to own offers over competitors' offers – foreclosure, leveraging market power, processing and combining data from different sources, and also denying or hindering interoperability or portability of data. Relevant conduct cannot be prohibited if objectively justified and the company concerned carries the burden of proof for the justification.

Furthermore, this provision aims at shortening the legal process. Appeals against decisions issued by the Bundeskartellamt will be brought before the Federal Court of Justice directly sidestepping the Court of first instance and avoiding a considerable waste of time in the proceedings.

With the enactment of GWB10, the merger control thresholds have been substantially raised in order to relieve companies from notifying transactions of minor economic importance and, at the same time, to also alleviate the number of transactions to be reviewed from the competition authority. This change aims at reallocating and focusing the FCO's resources on other enforcement priorities, including use of the new tools and powers discussed above. Companies will be subject to merger control if the annual domestic turnover of one of the companies concerned exceed €50 million and if another company participating in the merger achieves an annual domestic turnover amounting to at least €17.5 million. Moreover, the threshold for the value of the transaction, which is the consideration if the acquisition exceeds €400 million, and the requirement of substantial operations in Germany of the target remains unchanged. The GWB10, which is expected to reduce the number of notifiable cases by 20% to 30%, applies to all transactions that close on or after the date of the enforcement. This is also true for cases that were notified before the amendment entered into force, so under the old thresholds. The *de minimis* market threshold[64] exempting minor markets from merger control in section 36 of the GWB has also been raised from €15 million to €20 million. At the same time, the wording has been amended to allow for an integrated review of several *de minimis* markets, in line with previous practice.[65]

In addition, the period for the Phase II review has been extended from four to five months. This change has been made to allow a more sophisticated analysis required under the SIEC test to be conducted.

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[64] Agreements or practices falling under the 'de minimis' notice are considered to be of minor Community importance and are not examined by the Commission under EC competition law. National competition authorities may however, examine certain cases.

[65] See European Commission, "Commission notice on agreements of minor importance which do not appreciably restrict competition under Article 81(1) of the Treaty establishing the European Community (de minimis) (C 368/13)", Official Journal of the European Communities, 22/12/2001, available at https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2001:368:0013:0015:EN:PDF .

Furthermore, another provision was made in order to specifically address cases where large companies acquire smaller nascent firms, therefore, killer acquisition. The FCO has the possibility to oblige a company, for a limited three-year-period, to notify every acquisition in a given industry, even if the domestic turnover thresholds are not met. The risk of significant impediment of effective competition must relate to Germany, and an analysis will be conducted in order to check the presence of competitive concerns. The duty to notify only applies to transactions where the target company's worldwide revenues exceed €2 million and if at least 66% of the target's worldwide revenues are realized in Germany. Moreover, the FCO may impose penalties for procedural breaches such as a refusal of or delay in the submission of requested information, and they have been substantially increased from the previous range, which was from a minimum €1,000 to a maximum of €10 million, to up to 5% of the average daily total global turnover generated in the preceding financial year by the company or association of companies.

With the GWB10, Germany is aiming to acquire a leading role in the international efforts to address the perceived under-enforcement of competition law in the digital economy. It is the first country in the world to introduce rules specifically tailored to address certain patterns of conduct of large digital platforms in a quasi-regulatory manner.

Shortly before, in December 2020, the European Commission had issued specific rules for digital gatekeepers in the Digital Markets Act[66] similar to those established by the Bundeskartellamt.

The scope of the proposed Digital Markets Act includes a list of eight core platform services: (1) online intermediation services, including for example marketplaces, app stores and online intermediation services like Amazon marketplace or Google and Apple app stores; (2) online search engines such as Google Search; (3) social networking such as Facebook; (4) video sharing platform services such as YouTube; (5) number-independent interpersonal electronic communication services such as Facebook Messenger; (6) operating systems such as Apple iOS; (7) cloud services such as Microsoft Azure, and (8) advertising services related to one or more of the other core platform services aforementioned.

[66] See European Commission, "Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act), Brussels, 15.12.2020, COM(2020) 842 final, 2020/0374 (COD) available at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020PC0842&from=en .

However, the obligations of the Digital Markets Act only apply to the providers of those digital services that are designated to be "gatekeepers". Article 3 of the Act defines gatekeepers as "A provider of core platform services that: (a) has a significant impact on the internal market; (b) operates a core platform service which serves as an important gateway for business users to reach end users; and (c) enjoys an entrenched and durable position in its operations or it is foreseeable that it will enjoy such a position in the near future."[67] These three requirements are presumed to be satisfied when a platform achieves an annual Community turnover equal to or above €6.5 billion over the last three financial years, or when the average market capitalisation or the equivalent fair market value of the company amounts to at least €65 billion in the last financial year, and it provides a core platform service in at least three Member States out of the 27 of the European Union. In addition, the requirements are assumed to be satisfied when a core platform service reaches more than 45 million monthly active end users established or located in the EU, and more than 10,000 active business users on an annualized basis.

Furthermore, regarding mergers and acquisitions, Article 12 of the Digital Markets Act[68] declares that gatekeepers have the obligation to inform the Commission about any transaction. The Article states that "A gatekeeper shall inform the Commission of any intended acquisition involving another provider of core platform service, or of any other services provided in the digital sector irrespective of whether it is notifiable to a Union competition authority under Regulation (EC) No 139/2004 or to a competent national competition authority under national merger rules." The characteristic that changes with respect to the Merger Regulation is that this regulation is applicable *ex ante*, which means that a gatekeeper has to inform the Commission of such transaction prior to its implementation. The notification has to, at least, describe for the acquisition targets, their community and worldwide annual turnover, for any relevant core platform services their respective Community annual turnover, their number of yearly active business users and the number of monthly active end users, as well as the rationale of the intended concentration.

However, even if the Digital Markets Act addresses similar issues reported on the Digitalization Act, the latter is much more focused on the merger control. In the former, instead, the only article that concerns mergers and acquisitions from Big Tech is the above-mentioned Article 12, that declares the obligation of gatekeepers to inform the Commission about any transaction. This is not enough given that once large companies notify the competition authorities on a planned transaction, the vast

[67] Ibid. Article 3.

[68] Ibid. Article 12.

majority of mergers and acquisitions is allowed. Furthermore, the Digital Markets Act is not expected to come into force before 2022, therefore, maybe the Commission will consider the proposal enforced by the German competition authority and will revaluate it after those new legal concepts have been tested for a few years.

Recently another interesting solution has been proposed by Vaclav Smejkal in his paper on killer acquisition.[69] He suggests to set a complementary threshold not based on the value of the transaction, but on the turnover of the acquiring firm. This type of threshold is already used in countries such as Albania, Brazil or Colombia, for example. Regarding acquisitions of start-up by Big Tech, this could be a feasible solution given that usually the acquired company generate little or no turnover, while the acquirer has a turnover higher than the GDP of a European country. For example, the annual turnover of Amazon and Google in 2019 was respectively of $280 billion and $160 billion, while, over the same period, the GDP of Portugal and Slovakia was of $236 billion and $105 billion. However, the acquiring company should have a certain turnover in Europe, and this excludes giant corporations that operate from outside the Union, but want to enter the European markets.

To overcome this issue as suggested in the paper, it could be introduced the criterion of a certain significance of the acquired company for the Community, therefore, this would add a sector-specific criterion of merger control. This new power of review should better be applied only in high-tech or pharmaceutical sectors, where the danger of killer acquisition is most often mentioned.

Together with this complementary threshold it could also be introduced the "share of supply" test, already present in countries like UK for instance. Therefore, among the jurisdictional criteria it would be included the combined market share of the merging companies, or their share of sales of goods or services of a particular description. For such a criterion, it would be decisive to define properly the relevant market given that the Commission has the tendency to define relevant markets in the technological sector as relatively narrow ones. In fact, since a killer acquisition targeting an emerging technology market where the buyer is not yet present would not need to be notified at all on the basis of this criterion, this could be linked only to a certain type of goods or services and the respectively share of their sale in the Union.

[69] See Smejkal, Vaclav, "Concentrations in Digital Sector - A New EU Antitrust Standard for Killer Acquisitions Needed?", Journal for International and European Law, Economics and Market Integrations, vol. 7, no. 2, 2020, p. 1-16, available at https://heinonline.org/HOL/Page?handle=hein.journals/inteulst7&collection=journals&id=143&startid=143&endid=158 .

Furthermore, an idea proposed by the OECD in their paper "Start-Ups, Killer Acquisitions and Merger Control"[70] is to have a targeted approach, meaning that it should be singled out a specific list of companies to whom a special regime should apply. This goes back to the point made earlier about the suggestion of the Fruman report where it was proposed that "Digital companies that have been designated with a Strategic Market Status should be required to make the competition authority aware of all intended acquisitions". Nonetheless, in countries like Norway and Australia the recommendation that large digital platform provide advance notice of any acquisition already exists and has inspired also other countries to follow the same steps. In France, the competition authority has made a list of *entreprises structurantes* based on some criteria fixed in Chapter 3, Article 7 of the "Proposition de loi nº 2701, adoptée par le Sénat, visant à garantir le libre choix du consommateur dans le cyberespace".[71] Also in Italy, the competition authority, the AGCM, has proposed some changes in the current regulatory framework by addressing the power of dominant firms that operate in several different markets defined as "imprese di primaria importanza per la concorrenza in più mercati".[72] In the US, the Stigler report[73] encourages the creation of a sectoral regulator, "the Digital Authority", which would have the power to review mergers. The report proposes that threshold limitations should not apply to these firms, and that compulsory filings could be required for firms described as having "bottleneck power". It proposes that it could oversee "even the smallest transactions involving digital businesses with bottleneck power because nascent competition against these entities is very valuable for consumers". However, maintaining a list of designated firms, and ensuring that those firms are thoroughly reviewed is not a straightforward task.

Therefore, without radical changes in the merger control, the Commission and the NCAs will not be able to really challenge big tech companies that acquire small nascent firms.

[70] See OECD (2020), "Start-ups, Killer Acquisitions and Merger Control", www.oecd.org/daf/competition/start-ups-killer-acquisitions-and-merger-control-2020.pdf .

[71] See Assemblée Nationale, "Proposition de loi nº 2701, adoptée par le Sénat, visant à garantir le libre choix du consommateur dans le cyberespace", Feb. 2020, available at https://www.assemblee-nationale.fr/dyn/15/textes/l15b2701_proposition-loi#D_Article_7 .

[72] See AGCM, "Proposte di riforma concorrenziale ai fini della legge annuale per il mercato e la concorrenza anno 2021", AS1730, Rome 22/03/2021, available at https://www.agcm.it/dotcmsCustom/getDominoAttach?urlStr=192.168.14.10:8080/C12563290035806C/0/914911A1FF8A4336C12586A1004C2060/$File/AS1730.pdf .

[73] See Stigler Committee on Digital Platforms, Final Report, September 2019, available at https://research.chicagobooth.edu/stigler/media/news/committee-on-digitalplatforms-final-report .

4.2 Taking into account the counterfactual.

To assess whether a merger will be detrimental to competition, authorities need to predict the evolution of the market in the absence of the merger or the acquisition, which is the so-called counterfactual. The creation of an expectation is especially challenging when targets are small firms in the early stage of their development. As stated in the OECD paper aforementioned[74], when competition authorities assess the counterfactual, they pose some questions on whether the acquired firm would remain independent thus representing competitive threat for incumbents or whether the target would likely be purchased at a lower price by another acquirer and thus act as a strong competitor. The likelihood of a disruptive entry by a third party and of the acquirer purchasing a different firm or internally developing its own capability to produce a version of the nascent firm's product, will all be relevant counterfactuals for the development of the acquirer's product in the absence of the merger or acquisition.

Merger guidelines do not specify the precise timeframe used for assessing the impact of a merger or an acquisition, but usually is used a period of two or three years. However, since killer acquisitions involve the purchase of start-ups, in the counterfactual the competitive pressure expected could not begin to impact consumers and the market until a year or two later. Moreover, the innovation that occurs before the product reaches the market is not without value, and this should be taken into account when authorities make their decisions. The start-up's product may reach the market a few years after the acquisitions, but if its introduction is delayed or cancelled, this represents a welfare loss not only for today's consumers, but also for tomorrow's. Some of the most controversial and known killer acquisitions are those whose impact is still present after many years of their completion. For example, WhatsApp and Instagram acquisition by Facebook happened respectively in 2014 and 2016 and they are currently fundamental services for people's everyday life, which means that if they still existed as independent firms, they would most probably be a strong competitor of Facebook. Therefore, an excessively short timeframe may risk underestimating the competitive harm that can be generated by a nascent acquisition, so the timeframe could be extended.

Clearly in the case of an acquisition of a nascent firm, creating an expectation becomes much more difficult than in cases of acquisitions of established products, with a history of competitive interactions within a market. In fact, since firms are acquired at an early stage of their development, there is a significant uncertainty surrounding their growth if the acquisition did not happen. Merger

[74] Ibid.

control is by definition forward-looking, however, making an accurate prediction as to the future of a nascent firm in a dynamic market is particularly challenging. Competition authorities should assess whether the target's product will become popular, or benefit from network effects, or whether its cost will drop as the firm achieves economies of scale and learn-by-doing. A sure answer will never be obtained, but the only thing that competition authorities can do is trying to collect as much evidence as possible to provide the best prediction. The European Commission uses all sources of information available including internal documents of the target, of the acquirer and, in specific cases, of third parties as well as replies/submissions of other market participants, public statements of the parties, reports of industry experts, etc.

When assessing the relevant counterfactual, there are many other potential issues, one of which is whether, in the absence of the acquisition, the strength of the competitive threat that the acquired firm would have posed could have competitive effects and not if the target would have enjoyed more or less growth with or without the acquisition. For the assessment of competitive effects is not relevant whether competition authorities consider that the success of a nascent firm would have been greater, or less, than the one found as a result of the acquisition because the competitive constraint is posed only by a smaller independent or third-party owned rival. Therefore, an improvement in the potential growth of the target might in some cases be relevant evidence of pro-competitive efficiencies, but this will depend on the way in which the acquisition is expected to deliver any additional success.

However, the strength of the competitive constraint that the target poses is not, in itself, sufficient to draw conclusions on the impact of the merger. The conclusion to be drawn from a counterfactual in which the acquired firm was expected to become a minor player in the market will only become clear when also the assessment of the existing market power of the incumbent, the counterfactual on the potential entry of a third party, and the competitive assessment on the substitutability between those products will be examined. The loss of a potential firms in the market may be representing a loss of competition if the firm's product was substitutable with the acquirer, but it may be insignificant if the acquirer faces already existing competition and the possibility of future entry.

To further identify a potential competitor, it is suggested that the rationale of the merger be examined more closely to strengthen the evidence collected to support the theory of harm. Competition authorities would need to examine how specific the expected synergies are to the parties concerned and which other competitors may be interested in acquiring the nascent firm and creating similar synergies.

Lastly, for the relevant counterfactual it must be assessed whether the nascent firm is likely to be a killer acquisition, which could be accomplished by estimating how likely the acquiring firm is to abuse its dominant position after the fact. Killer acquisitions do not entail only the smaller firm's absorption into the large one, but also the elimination of the smaller firm's product. Therefore, the counterfactual should account for what "the efficiency gain would be from de-duplicating a product and if the products are or would become close competitors if the acquisition did not happen"[75].

Moreover, in the report by the Commission "Competition Law 4.0"[76] made by the German Federal Ministry for Economic Affairs and Energy, other recommendations for the acquisition of start-ups by dominant companies are provided. The report suggests the development of guidelines that specify relevant theories of harm: particular account must be taken of data-based, innovation-based and conglomerate theories of harm.

4.3 Fine tuning concerning sanctions and remedies.

According to the Merger regulation 139/2004, the Commission may decide to impose on companies or persons involved, fines not exceeding 1% of the aggregate turnover of the firms concerned if they supply incorrect or misleading information in a submission, certification, notification or in response to a request made, or also if they do not supply information within the required time limit or if they produce the required books or other records related to the business in incomplete form during the investigation. If companies do not notify the Commission on a transaction or on its implementation or if they implement a merger or an acquisition declared to be incompatible with the market or without complying to specific conditions, the Commission may by decision impose fines not exceeding 10 % of the aggregate turnover of the undertaking concerned. In fixing the amount of the fine, the Commission will also take into account the nature, gravity and duration of the infringement.

Furthermore, the Commission may impose on the firms infringing Merger Regulation, periodic penalty payments not exceeding 5 % of the average daily aggregate turnover of the undertaking or

[75] Ibid.

[76] See German Federal Ministry for Economic Affairs and Energy, "A new competition framework for the digital economy Report by the Commission 'Competition Law 4.0'", Sep. 2019, available at https://www.bmwi.de/Redaktion/EN/Publikationen/Wirtschaft/a-new-competition-framework-for-the-digital-economy.pdf?__blob=publicationFile&v=2 .

association of undertakings in order to oblige them to supply complete and correct information which it has requested or to submit to an inspection which it has ordered.

In fact, in May 2017 the Commission fined Facebook €110 million for providing misleading information about the WhatsApp acquisition. At the time of the transaction, Facebook informed the Commission that it would not be able to establish reliable automated matching between Facebook users' accounts and WhatsApp users' accounts. However, in August 2016, WhatsApp announced updates to its terms of service and privacy policy, including the possibility of linking WhatsApp users' phone numbers with Facebook users' identities. On December 20, 2016, the Commission addressed a Statement of Objections to Facebook detailing its concerns and has found out that it was technically possible to automatically matching Facebook and WhatsApp users' identities already since 2014, and that Facebook staff were aware of such a possibility. Therefore, the Commission decided to impose such a fine, in this regard Commissioner Margrethe Vestager said that: "Today's decision sends a clear signal to companies that they must comply with all aspects of EU merger rules, including the obligation to provide correct information. And it imposes a proportionate and deterrent fine on Facebook. The Commission must be able to take decisions about mergers' effects on competition in full knowledge of accurate facts."[77] If infringements of competition law have nevertheless led to a sustained deterioration in the competitive situation, the aim should be to order remedies which restore undistorted competition. The purpose of remedies is not only to pose an end to the infringement, but also to prevent a recurrence of the infringement and restore effective competition. However, restoring the situation as it would have been without the infringement is *de facto* impossible in a rapidly developing market environment like the high-tech industry. Therefore, what might be feasible is the restoration of competitive opportunities, depending of course on market conditions.

As the report by the "Commission Competition 4.0" suggested, it is necessary to reflect anew on remedies. It must be assessed, in particular, how competition could be restored after an infringement with foreclosure effect has occurred and under which condition it is possible to give these remedies. If these system of punishing anti-competitive behaviours is not taken seriously by companies that infringe the Merger Regulation, the Commission fails and consequently there is further incentive to disregard its enforcement.

[77] See European Commission, "Mergers: Commission fines Facebook €110 million for providing misleading information about WhatsApp takeover", Press release, Brussels 18/05/2017, available at https://ec.europa.eu/commission/presscorner/detail/pl/IP_17_1369 .

In the dynamic digital markets, the Commission does not use remedies to compensate disadvantaged competitors for the harm suffered or to produce a market outcome as it would presumably have existed in the absence of an infringement. The purpose of remedies is to restore competition, therefore, to ensure that existing positions of market power are made contestable again and that competitors have real and effective competitive opportunities, at least comparable to those that existed before the infringement. The remedies' aim should be to keep markets open, consequently in high-tech markets, the obligation of a dominant company may be to establish technical interoperability by disclosing interface information or to grant data access may be of particular importance.

It would be possible to further expand flexibility by creating a new procedure in which companies and competition authorities could cooperate in their mutual interest with a view to restoring competition and experiment with different solutions, combined with deadlines and criteria for the evaluation of effectiveness of a given regime as suggested by the report aforementioned. The Commission 'Competition 4.0' recommends competition authorities to make a greater use of flexible, targeted remedies in digital markets. In fact, the European Commission should conduct a study which analyses the previous policy on remedies pursued by the competition authorities in relevant cases that involve firms like GAFAM.

4.4 Catching killer acquisitions through the merger referral procedure: Article 22 Merger Regulation.

As mentioned above, the Commission is still lacking of a regulatory framework that can actually challenge big tech companies engaging in mergers and acquisitions that could potentially threat competition in the digital industry.

Already in February 2016, the European Commission opened a consultation on the evaluation of the procedural and jurisdictional aspects of EU merger control[78]. The focus was on the thresholds that determine the Commission's jurisdiction, which are based on the turnover of the acquirer and the target. In digital markets, however, acquired firms may have a significant competitive role generating

[78] See European Commission, "Empowering the national competition authorities to be more effective enforcers", Feb. 2016, https://ec.europa.eu/competition-policy/public-consultations/closed-consultations/2015-effective-enforcers_en .

little or no turnover and thus fall outside of the scope of EU merger control. For example, the acquisitions by Facebook of both Instagram and WhatsApp did not reach the Community thresholds, even though those acquisitions clearly removed potential competitors from the scene. As a matter of fact, those acquisitions were reviewed by competition authorities: the former by the CMA and the latter, even if it had not a Community dimension, it was it is capable of being reviewed under the national competition laws of three Member States.

However, the consultation did not immediately lead to any changes, but instead concerns about the Merger Regulation's blind spots only grew. Over the same period, the research conducted by Cunningham et al.[79] brought on the surface a new challenging and diffuse problem: killer acquisitions. This phenomenon created concerns for innovation and competition especially in the digital markets, where huge high-tech companies like GAFAM had already established their dominant position. Most importantly, these killer acquisitions of nascent and small firms disproportionally occur below the thresholds set by the Merger Regulation.

As already discussed in chapter 1.2, when GAFAM acquire start-ups, the target's product is commonly discontinued, but it is more difficult to discern the underlying motivation. The focus on tech acquisitions is due to the fact that the behaviour of GAFAM represents a serious problem for competition and a threat for innovative companies that try to emerge in the same relevant market. As a matter of fact, tech firms may be able to identify potential targets earlier than traditional businesses, and, at the same time, start-ups, especially the ones backed by venture capital, already have strong incentives to sell to the incumbent. This may not be an issue if both parties can benefit from the acquisition and provide a better product or service for consumers. However, when founders refuse to sell, GAFAM act in a way which is at the boundaries on legality and sometimes even engaging in anti-competitive practices. Another case is when the incumbent platform decides to simply copy the features of the new product proposed by a start-up and rely on its established user base to win out against it. For example, after Snapchat refused Facebook's acquisition offer, Facebook copied Snapchat's popular 'Stories' feature on its three major social networking platforms (Facebook, Instagram, WhatsApp), and therefore, the growth of Snapchat drastically slowed down. Moreover, this kind of acquisitions has led venture capitalist to not found any more start-ups that may offer products or services similar to the ones offered by Facebook, Amazon or Google.

[79] See Cunningham, Colleen and Ederer, Florian and Ma, Song, "Killer Acquisitions" (April 19, 2020). Journal of Political Economy, Vol. 129, No. 3, pp. 649–702, March 2021, https://ssrn.com/abstract=3241707 .

Therefore, the European Commission is moderately making some steps towards some modifications of the Merger Regulation 139/2004, that is considered to be an appropriate tool for addressing such concerns, but evidence has shown that the system of notification threshold is not sufficient. One of the most recent changes is the "Guidance on the application of the referral mechanism set out in Article 22 of the Merger Regulation to certain categories of cases" [80]. The Guidance, in fact, contains a corrective mechanism to the application of the quantitative jurisdictional thresholds afore-mentioned, allowing, under specific circumstances, a referral of individual cases between the Commission and one or several Member States. Article 22 of the Merger Regulation states that: "One or more Member States may request the Commission to examine any concentration as defined in Article 3 that does not have a Community dimension within the meaning of Article 1 but affects trade between Member States and threatens to significantly affect competition within the territory of the Member State or States making the request."[81] This system of referrals aims to ensure that the most appropriate authority or authorities carry out a particular merger investigation review on a case even if it was not initially competent. This article is applicable to all concentrations, not only those that meet the respective jurisdictional criteria of the referring Member States.

However, with the emergence of few big tech companies that provide platform services, the digital market has witnessed an increasing number of acquisitions made by this firms and targeted to small nascent companies that generate little or no turnover at the moment of the acquisition. In order to address this issue, the Commission has analysed the effectiveness of the turnover-based jurisdictional thresholds of the Merger Regulation and concluded that they have generally been successful in capturing transactions with a significant impact on competition in the EU internal market.[82] However, a number of cross-border transactions which could potentially also have such an impact have escaped review by both the Commission and the Member States and therefore, the Commission considers necessary the reappraisal of the application of Article 22 of the Merger Regulation. In view of the foregoing reasons, under certain circumstances, the Commission aims to promote and accept referrals in cases where the referring Member State does not have original jurisdiction over the case, but where

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[80] See European Commission, "Commission Guidance on the application of the referral mechanism set out in Article 22 of the Merger Regulation to certain categories of cases", C(2021) 1959 final, Brussels 26/03/2021, https://ec.europa.eu/competition/consultations/2021_merger_control/guidance_article_22_referrals.pdf .

[81] See Article 22, European Commission, "COUNCIL REGULATION (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation)", Official Journal of the European Union, Jan. 2004, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32004R0139&from=EN .

[82] See European Commission, "Mergers: Commission announces evaluation results and follow-up measures on jurisdictional and procedural aspects of EU merger control", Press release, Brussels 26/03/2021, https://ec.europa.eu/commission/presscorner/detail/en/IP_21_1384 .

the criteria of Article 22 are met. This new approach will allow both the Member States and the Commission to investigate transactions that deserve review without imposing a notification obligation on those that would not warrant such revision. The Guidance provides indications about the categories of cases that may represent suitable candidates for a referral in cases where the transaction is not notifiable under the laws of the referring Member States, and thus on the criteria that the Commission may take into account in such situations when encouraging or accepting such a referral.

When deciding on whether a transaction threatens to significantly affect competition in the market at stake, the Guidance declares that relevant considerations should be given to "the creation or strengthening of a dominant position of one of the undertakings concerned; the elimination of an important competitive force, including the elimination of a recent or future entrant or the merger between two important innovators; the reduction of competitors' ability and/or incentive to compete, including by making their entry or expansion more difficult or by hampering their access to supplies or markets; or the ability and incentive to leverage a strong market position from one market to another by means of tying or bundling or other exclusionary practices."[83]

Furthermore, in the Guidance it is also cleared which categories of cases will be appropriate for a referral under Article 22 of the Regulation even when the merger or the acquisition is not notifiable in the referring Member States. The categories "consist of transactions where the turnover of at least one of the undertakings concerned does not reflect its actual or future competitive potential. This would include, for example, cases where the undertaking: (1) is a start-up or recent entrant with significant competitive potential that has yet to develop or implement a business model generating significant revenues (or is still in the initial phase of implementing such business model); (2) is an important innovator or is conducting potentially important research; (3) is an actual or potential important competitive force; (4) has access to competitively significant assets (such as for instance raw materials, infrastructure, data or intellectual property rights); and/or (5) provides products or services that are key inputs/components for other industries."[84]

It was worth mentioning these two paragraphs because it is clear the reference to the phenomenon of killer acquisitions, which finally have the deserved importance in the regulatory framework. In addition, the Commission has not introduced a complementary threshold based on the value of the

[83] Ibid. Paragraph (15).

[84] Ibid. Paragraph (19).

transaction, but it has stated that in its assessment “the Commission may also take into account whether the value of the consideration received by the seller is particularly high compared to the current turnover of the target.”

Moreover, some other changes have been made. The Merger Regulation imposes strict deadlines on the Commission to review a transaction, which the parties can only carry out once a decision has been reached. However, the Guidance holds that “the fact that a transaction has already been closed does not preclude a Member State from requesting a referral”[85], but the Commission does not consider a referral appropriate if more than six months have passed after the implementation of the transaction.

The Guidance ends with some procedural aspects that determine the respective roles of NCAs, the merging parties, third parties and the Commission in this process. For example: “If no notification is required, a referral request must be made at most within 15 working days of the date on which the concentration is otherwise made known to the Member State concerned”. Other Member States may then join the request within 15 working days, and the Commission decides whether to review the transaction at the latest 10 working days after the expiry of that period.

By widening the application of the Article 22, the Guidance is aiming at increasing transparency, predictability and legal certainty and enabling the Commission to scrutinize more transactions. Regarding paragraph 19 of the Guidance, where it is described also the possibility for the Commission to examine whether the value of the transaction is particularly high compared to the current turnover of the firm to be acquired, it could be introduced an *ex post* controls of those mergers and acquisitions as a complementary tool as suggested by the OECD in their paper.[86] The *ex post* control could be limited to large companies in order not to increase the administrative burden in general and the revocation of their concentration would be possible only within a specified time limit. However, in order to avoid any uncertainty, it should be clarified whether the *ex post* control is limited to cases where the *ex ante* control has not been carried out possibly due to lower thresholds. In addition, in such cases of nascent acquisitions, it is extremely difficult to untangle mergers where significant integration has taken place. Therefore, this criterion could be implemented first in some Member States and then evaluated for an EU dimension.

[85] Ibid. Paragraph (21).

[86] Ibid.

Nonetheless, as many economists, researches and legal experts have already made it clear, there is the need for a fundamental legislative change in Europe and to the Merger Regulation in order to address issues brought by big tech companies and their acquisitions.

4.5 Conclusions.

Killer acquisitions are becoming an increasingly relevant topic for competition authorities in several countries. One of the first countries to implement measures in order to regulate this phenomenon typical of high-tech markets was Germany, which implemented another method for setting notification thresholds. The German competition authority had already established the threshold based on the value of the transaction rather than on the turnover of the firms involved in the acquisition in 2017. However, after examining that the values were not catching much relevant cases, the Bundeskartellamt decided to raise the threshold in January 2021 through the issuance of the Digitalization Act. Another important measure brought by this Act, is the possibility of the authority to tackle certain behaviours of large digital platforms that have a strong or dominant position in the market. Furthermore, the authority may impose big tech companies to notify all their acquisitions. Similar to this provision is the Digital Markets Act issued by the European Commission, but this Act does not really address merger control rules and it will not be in force until, at least, 2022.

Other solutions have been proposed concerning thresholds, however, the Commission cannot currently implement any of them due to the uncertainty related their success. As stated by the OECD paper mentioned in the chapter, it is really interesting the suggestion to further assess and give a greater chance to the analysis of the relevant counterfactual, which examines the evolution of the market if the acquisition in question would have not taken place. This analysis should be sharpened given the access to more technological tool available to the Commission; however, this would require longer proceeding, but that could be necessary given that competition on digital markets has to be both protected and promoted.

Concerning the sanctions and remedies of merger control rules, they should be re-assessed in order to not let big tech companies get away with infringements. Serious fines should be given as to make larger firms understand that anti-competitive behaviours will not be allowed any longer.

Regarding other tools to better assess potential killer acquisitions, on March 26, 2021 the Commission has issued the Guidance on the application of the referral mechanism set out in Article 22 of the Merger Regulation to certain categories of cases. This Guidance allows the Commission to examine cases that do not have an EU dimension, but that were referred by Member States as significantly affecting competition. In this way, cases that deserve review will be investigated, especially the ones that involve large companies acquiring start-ups and where the value of the transaction is too high compared to the turnover of the acquired firm.
Therefore, the European Commission is moderately taking its first steps towards the awareness that is fundamental to recognize and regulate killer acquisitions happening in several sectors, but in particular in the technological and pharmaceutical industries.

Conclusions.

Killer acquisitions are very spread and common in digital markets where competition and innovation play a major role. Big-tech companies acquire small and innovative start-ups with the only justification that they might represent a potential threat in the future. In fact, as it has been discussed, the vast majority of firms, once acquired, are shut down and they are completely absorbed into the acquiring firm. Only in the cases in which the smaller company has already established a high customer base and achieved network effects, their service or product usually continue to exist under the original name.

Competition law for mergers and acquisitions was issued in a way that it does not really work for the digital economy. High-tech markets have several different characteristics with respect to the traditional ones: market power cannot be assessed by looking at market shares anymore and the relevant market cannot be defined with strict and narrow boundaries. In particular, most of the acquisitions conducted by the Big Five did not trigger the attention of competition authorities because of the low turnover of the firms that are acquired.

As mentioned above, competition authorities need to review their regulatory framework in order to make it more responsive to the killer acquisitions. Among the different changes proposed, the most debated ones are: the revision of the thresholds which are based on the turnover of the firms involved in the concentration, however, since start-ups have zero revenue, it is not that effective; then market power should also take into account the access to data and the network effects of the firms concerned as well as innovation. Moreover, when defining the relevant market, it should be considered that digital platforms have eliminated boundaries by creating real ecosystems where substitutes are difficult to be decided.

Some suggestions have already been implemented, like in Germany, where the Bundeskartellamt has approved a new Digitalization Act that aims at regulating killer acquisitions and, in general, digital platforms that exercise a significant market power. This act focuses especially on certain anti-competitive behaviours undertaken by big-tech companies by requiring them to notify all their acquisitions. Also, the European Commission by issuing the Guidance on the application of the referral mechanism set out in Article 22 of the Merger Regulation is moderately making its first step towards a stricter control of companies that are dominant in digital markets. In addition, when predicting the counterfactual, competition authorities should renew their substantive assessment by introducing the use of more technological tools, such as artificial intelligence.

Concluding, there has been a slight awakening of competition authorities to modernize the current legal regime, but still there are many measures that could be implemented in order to achieve the goal of a market in which firms can freely compete.

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