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The Interaction Between Sustainability and Competition Policy

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INTRODUCTION

The world population in 1992 was 5,453 billion, in May 2022 it reached 7,951 billion, in just thirty years there was a percentage increase of more than 30 per cent. As the world population increases, the need to exploit more natural resources and rely on industrial activities to survive also increases. Setting up a vicious circle between resource depletion and population growth. The Earth cannot sustain anymore the same pace of technological and human development, and this is confirmed by the Earth's overshoot day which marks the day on which humanity's demand for natural resources in a given year exceeds what the Earth's biocapacity that can generate in that year. In particular, Italy exhausted its available resources for 2022 and started to use those for 2023 on the 15th of May, more than seven months before the end of the year. This highlights the ecological deficit that humanity has against the Earth, and as it was provided by the international research organization Global Footprint Network, in 1970 this deficit accounted only for 3 days, while in 2020 it arrived at 132 days. To fully sustain our lives there would need 1.6 planets. However, there is the necessity to mention that the Covid pandemic, especially the period between March and May 2020, had a positive effect on the environment with the improvement of air and water quality and a reduction of carbon and nitrogen emissions due to the shutdown of several activities and a decrease in the level of frequency of human activity and the overall production. The latter contributes the most to the overall benefits achieved because during the main industrial revolution that our world faced and is currently facing the value proposition of firms and the anger to obtain profits with respect to competitors ignored environmental degradation. Furthermore, those industries were not held accountable for the negative effects they had on the environment. For this reason, in the last decades, several multilateral international agreements have been reached at a global or regional level, such as the convention on persistent organic pollutants in 2001 and the Paris Agreement in 2016 and the European Green Deal in 2019 in order to align environmental and business purposes.

The purpose of this paper is to investigate the correlation between sustainability and competition law in the European Union. These two concepts could be in contrast with each other due to the well-established legal architecture created by competition authorities that do not directly exempt anticompetitive practices with environmental purposes but, at the same time, competition could be a powerful tool in the hand of the European Union in order to support the climate neutrality goal of 2050 with its capability to encourage efficiency and innovation.

To completely delve into this subject this thesis is divided into four main chapters, in correspondence with the three main practices, that could restrict competition, assessed by the competition authorities throughout the market.

The first chapter provides an introduction to the definition of both competition law and sustainable development. For the former, this thesis is focused on the main economic objectives that European competition law pursued by providing different positions and changes that the Commission and the European court of justice took over the years. In addition, this chapter provides an overview of the main characteristics of sustainable development, its ambiguous notion, and its application in the European Treaties over the last decades, from the treaties establishing the European economic community to the Lisbon treaty and the main articles that provide the basis of the European environmental policy. In conclusion, this chapter deals with the sole relation between competition and sustainability, by reporting different positions on whether antitrust authorities should modify or clarify already existing provisions in order to adapt them to the new factor of this century or to exclude non-economic factors as sustainable development in competition analysis.

The second chapter attempt to specify one of the three main practices that could result in distortion of competition, mergers. The first part deals with the legal general framework for mergers, in particular, its ex-ante and ex-post assessment in the European Union. Consequently, as in every other chapter, there is an evaluation of the effect on the environment of the practice taken into account, in this case, concentration. The second part's aim is to present the Bayern Monsanto agribusiness case, one of the most important European cases on merger regulation due to its weight and potential threat to the environment and especially to agriculture harvest and productive processes. After a brief introduction to the case and to several different viewpoints on the possible conclusion, it follows an assessment of the judgment of the European Commission with respect to environmental objectives and EU merger regulation guidance.

In the third chapter, there is the introduction to cooperation agreements by proving an interpretation of the legal framework that characterizes those agreements. With the valuation of Article 101 of the treaty on the functioning of the European Union, which is the main regulator of those agreements, the block exemption evaluation, that provides a possibility to directly justify an outbreak in these practices and the new horizontal guidelines of 2022, created to provide a further explanation regarding their application and possible implications. Furthermore, because of the necessity to clarify the legal boundaries under which certain agreements between firms could be legally enacted, at the national level, there was the creation of several initiatives: the first was the AMC guidelines proposals created by the Netherlands' competition authority, followed by the Hellenic sandbox, the English, and the French proposals.

In the last chapter, this thesis analyzes the abuse of a dominant position of a company in a specific market by making reference to Article 102 TFEU. In particular, it defines the two requirements under which a firm can be accused of abuse of a dominant position in the market. Firstly, it assesses the measures to describe the relevant market and define the percentage of market share and market position. Lastly, it verifies the

ongoing position between these practices and their correlation with sustainable factors, in particular by mentioning they are not defined and potential relationship.

Ultimately, the conclusions delineate the development of new guidance concerning potential anticompetitive practices and the current and future challenges that competition authorities are and will face due to the political events that took place between 2021 and 2022.

CHAPTER I

COMPETITION AND SUSTAINABILITY: TWO DIFFERENT FORCES

1.1. The Importance of Competition Policy in the European Economy

“Monopoly, besides, is a great enemy to good management, which can never be universally established but in consequence of that free and universal competition which forces everybody to have recourse to it for the sake of self-defence.” (Adam Smith *“The Wealth of Nations” (1776)*)

Competition Policy is ‘’a set of laws and a particular public policy which is aimed at avoiding that competition in the markets is restricted or limited in a way that is detrimental to society’’[1]. Competition is a prime characteristic of the market economy. Economic analysis provides findings that competition is positively related to economic development and both domestic and international competitiveness, indeed there are certain sets of rules which are typically used by public authorities to protect competition in the market and prevent actions that could result in a lessening of competition:

(i) Enforcement of competition or antitrust rules: Which are aimed at protecting competition by prohibiting determined commercial initiatives that may restrict the competition in the market,
(ii) Control State Aids: Any advantage granted by public bodies through state resources on a selective basis,
(iii) Sector regulation: Which includes each regulatory measure that may be implemented by specific sector authorities in order to regulate the function of a specific market,
(iv) Competition advocacy: It refers to those activities conducted by the competition authority related to the promotion of a competitive environment for economic activities, through its relationships with governmental entities.

In the European Union, competition law was conceived by the treaty of Rome in 1957, which established the creation of the European Common Market,[2] a common structure to safeguard free competition in the market between 27 Member states. As it is stated in Article 3 para.3 of the Treaty on European Union (TEU);’’ *The Union shall establish an internal market. It shall work for the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment. It shall promote scientific and technological advance.’’*

[1] M.Motta, *Competition Policy: Theories and Practice,* 2004, pag.28
[2] One of the core objectives of the European Economic Community (ECC), established in 1957

The concept of an internal market is specifically focused on eliminating trade barriers between the member states in order to increase economic growth and ultimately lead to political unification. In accordance with Protocol 27 on the Internal Market and Competition[3] in which it is stated that: *''[…] the internal market as a set out in Art.3 TEU includes a system ensuring that competition is not distorted.''*. It relies on the principle that market actors should communicate and participate within the economy without any unjustified obstacles, permitting a free movement characterized by the four freedoms:[4] Free movements of goods, capital, freedom to establish and provide services, and movement of persons. As it was declared in the communication from the Commission to the Council in 1998 the rules of EU competition rules are unique in the world, they have been established to protect and create an accessible market, prevent distortions, and ensure fairness for market participants. The current framework is a prime part of a country's economic development strategy in this era of liberalization and globalization.

1.2. The Objectives of EU Competition Law

The Commission's General guidelines in 2004 identifies two significant goals in Article 101 of the treaty on the functioning of the European Union (ex. Art. 81 EC) for protecting competition as a provision for "*enhancing consumer welfare and […] an efficient allocation of resources.*"[5]. Meanwhile it is visible a dichotomy concerning the European Court of Justice (ECJ) statement in the GlaxoSmithKline case, in which it implied that: '' *Article 81 EC aims to protect not only the interests of competitors or consumers, but also the structure of the market and, in so doing, competition as such. Consequently, for a finding that an agreement has an anti-competitive object, it is not necessary that final consumers be deprived of the advantages of effective competition in terms of supply or price''.*[6] The court notes that the wording of the treaty on the Functioning of the European Union (TFEU) lends support to such a position. Furthermore, numerous additional goals have been contemplated in legal literature, in addition to economic welfare and efficiency, there are included the defence of medium and smaller firms, fighting inflation, ensuring economic freedom, and promoting fairness and equity.[7] Ultimately, competition is believed by public authorities to guarantee positive economic effects in terms of productivity, low prices, product quality, and variety. The view of competition law oriented to an economic perspective founds its roots in the Chicago

[3] Annexed to the EU treaties

[4] Four Freedoms are stated in Art. 26 of TFEU as follows: '' Internal market shall comprise an area without internal frontier in which the free movements of goods, persons, services and capital is ensured in accordance with the provisions of the Treaties.''

[5] Communication from the Commission-Notice -Guidelines on the application of Article 81(3) of the Treaty para.13, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52004XC0427(07)

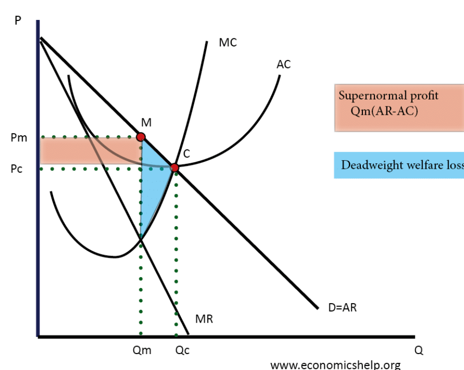
[6] *GlaxoSmithKline,* Case C-501/06 P, ECLI:EU:C:2009:610, para.63, in which it is examined the consequences of parallel trade to consumer. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:62006CJ0501&from=IT

[7] Ibidem, pag.4

school[8], despite the limitation of its application in a real economy, the antitrust policy followed its path and become more rigorously economic, with the aim of incorporating economic analysis into the assessment of antitrust cases, and less concerned with protecting no economic values. Indeed, the influence of economics on competition law, with a particular reference to welfare economics and consumer theory, can be demonstrated by a more economic approach introduced in 1989 with the implementation of the old Merger Control Regulation[9] and the reform of the law on vertical restraints in the late 1990s[10]. Another characterization was deployed by Ariel Ezrachi, in which he declares that the goal of European Competition law centres around with consumer welfare, with the support of effective competition structure, efficiency and innovation, fairness, market integration, and as well as consumer well-being.[11]

Different objectives suggested to EU competition law are assessed below, with a focus on efficiency, and total and consumer welfare. They constitute the category of economic objectives, which refer to the economic consequences of certain practices and effects on consumers and society as a whole. Specifically, economic efficiency and welfare are divided respectively into allocative, productive, dynamic efficiency, consumer, and total welfare.

1.2.1. Allocative Efficiency



[8]This approach was developed by certain scholars such as Posner, Bork, and Easterbrook. It has had a very strong influence on antitrust policy since the 1970s and had a very strong impact on the EU in the 1990s. The main axioms: The rejection of the SPC paradigm, according to the Chicago scholars, this paradigm does not reflect market conditions. The idea is that there is a positive relationship between the degree of concentration of firms and the performance, in particular the level of profits realized by the firms. But the facts in concentrated markets, big firms may obtain higher profits, according to the Chicago view, it is not necessary the fact that concentrated markets are less competitive. This may simply be due to the fact that large firms are more efficient and capable of operating at a lower cost. Chicago scholars are more confident in the three functions of markets, they are confident in the fact that profit-maximizing behavior, the behavior of firms at maximizing profits will also deem to positive results for consumers and the society as a whole. They are also positive about the ability of the market to correct the possible failure, remove imperfections, and restore competitive conditions. For the Chicago, view monopoly condition will not last forever. A monopoly position will attract more entrance and other operators and in the long term will destabilize the monopoly position.

[9] As it is stated in *''The New European Community Merger Control Regulation and the Short-Term Horizon of United States firms''* by Marsha Cope Huie and Stephen D. Hogan the European Community adopted the EC Council Regulation No. 4064 to provide effective control of mergers at the EC level. Prior to the adoption of the regulation such merger control had not existed.
[10] Ioannis Lianos, *Some Reflections on the Question of the Goals of EU Competition Law*, January 2013

[11] Ezrachi Ariel, *EU Competition Law and The Digital Economy*, 2018, pag.4

Figure 1: Monopoly and Efficiency Analysis

The goal of allocation efficiency implies that the resources of an economy should be allocated to the production of products in a way that the Pareto criterion is fulfilled for the economy as a whole: No one can be made better off through a reallocation of these resources without reducing the utility of another person[12].

From an economic standpoint, allocative efficiency is measured and maximized at the equilibrium when price levels are equal to marginal costs (P=MC). In accordance with this equation marginal cost of production is aligned with the marginal benefit for consumers. Under perfect competition, Pareto optimality is reached.[13] Indeed since firms act as price takers allocative efficiency is maximized because the price is equal to the marginal cost of production. This means that any customer who adds value to the product that is at least equal to the marginal cost of production will be capable of buying the product on the market.

1.2.2. Productive Efficiency

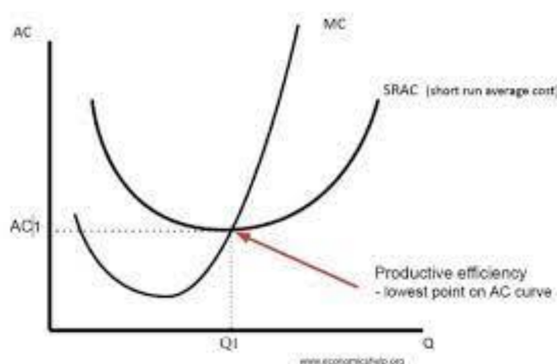


Figure 2: Graphical Representation of Productive Efficiency

Productive efficiency concerns the condition for the maximum production of certain goods or services at a given lowest cost, with given resources and available technologies. It is achieved when a given amount of output is produced by using the lowest possible number of inputs, from a microeconomic point of view it is represented when the short-run average cost curve is equal to the marginal cost curve (SRAC=MC) at its lowest point.

If the firm is not operating efficiently, productive inefficiencies arise. It results from the inability to exploit economies of scale, and so-called X-inefficiencies, due to the problem that managers might pursue goals

[12] Kerber, Wolfgang, *Should competition law promote efficiency? :Some reflections of an economist on the normative Foundations of competition law*, Margurger Volkswirtschafliche Beitrage, No. 2007, 09, Philipps-Universitat Marburg, Fachbereich Wirtschaftswissenchaften, Margurg

[13] In economic theory, an alteration in the allocation of resources is said to be Pareto efficient when it leaves at least one person better off and nobody worse off. A state of Pareto optimality occurs when no further Pareto-efficient changes can be made. The concept was first described by the Italian economist Vilfredo Pareto. (Oxford Reference)

other than profit maximization. The difference between the actual average costs curve and the potential average costs curve is the X- inefficiency.

Allocative and productive efficiency is considered static concepts since efficiency is defined in terms of refinement of existing and constant products and production.

1.2.3. Dynamic Efficiency

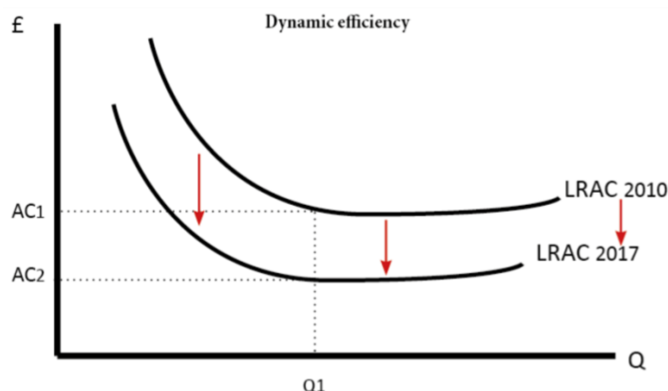


Figure 3: Dynamic Efficiency

Dynamic efficiency refers to the need of firms to improve and substitute their technology and products in response to innovation, in order to increase the social welfare of society. Therefore, dynamic efficiency is related to the rate of investment and innovation in order to improve production processes, which reduces the long-run average cost curve.

1.2.4. Consumer Welfare

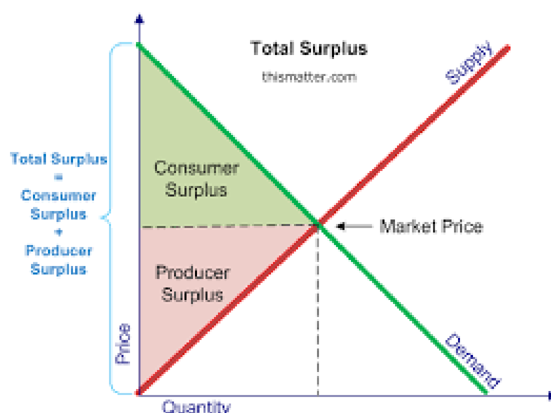


Figure 4: Perfect Competition

It indicates the total welfare perceived by consumers in a given market from the consumption of goods and services. It is assessed through the economic concept of consumer surplus (CS), which is the

difference between the maximum amount that a customer is willing to pay for the quantity purchased, called reservation price, and the actual price that the customer has to pay.

In graphical terms, consumer surplus is measured by the area under the demand function and above the market price up to the quantity purchased by the consumer.

1.2.5. Total Welfare

Total welfare refers to the perceived welfare of both buyers and sellers, it is given by Total Surplus (TS) a concept used in economics to measure how well an industry performs. The total surplus (TS) of a consumer is given by the sum of producer surplus (PS) and Consumer Surplus. (TS= PS-CS). The total welfare model of antitrust rejects the view that enforcement agencies should require firms to pass on efficiency benefits to consumers, redistribution is considered neutral.

1.2.6 Which Economic Objective Does the EU Competition Policy pursue?

In the last century, there has been an extensive debate on the importance of economic efficiency and total or consumer welfare for European competition authorities and government bodies. Even though there is a common consensus that competition law should increase welfare with respect to static and dynamic efficiency, there is not an explicit debate concerning the implementation of total welfare standards or consumer welfare standards within the treaty establishing the European community. However, since the EU competition system has been adjusted to reflect an analysis ponderously established on economics, the focal point progressively shifted to consumer welfare.

In official documents, the word ‘’consumers’’ appears in different parts and the first time in which the European Court of Justice directly used the term "consumer welfare" was in *Post Danmark* A/S *v. Konkurrencerddet*[14] case of 2012[15]. However, it is important to highlight that the Court in the first decade of the 21st century, especially in the *T-Mobile NetherlandsBV v. Raad van bestuur van de Nederlandse*

[14] Case C-209/10, 2012, ECLI:EU:C:2012:172, para.42, ‘’ In that last regard, it is for the dominant undertaking to show that the efficiency gains likely to result from the conduct under consideration counteract any likely negative effects on competition and consumer welfare in the affected markets, that those gains have been, or are likely to be, brought about as a result of that conduct, that such conduct is necessary for the achievement of those gains in efficiency and that it does not eliminate effective competition, by removing all or most existing sources of actual or potential competition.’’).

[15] Roger D. Blair and D. Daniel Sokol, *Welfare Standards in U.S and E.U Antitrust Enforcement,* 81 Fordham L. Rev. 2497 (2013), UF Law Faculty Publications, Pag.2509, http://scholarship.law.ufl.edu/facultypub/360

Mededingingsautorite[16] case, provided a recent formulation of the multiple goals of European competition law and clarified its position with respect to the Commission, which fully adopted the view of consumer welfare as the main EU competition objective. Indeed, the Court stated that '' *In any event, as the advocate general pointed out at point 58 of her opinion, Article 81 EC, like the other competition rules of the Treaty, is designed to protect not only the immediate interests of individual competitors or consumers but also to protect the structure of the market and thus competition as such''*[17]. Following the structure of the previous case also in the *GlaxoSmithKline Services v. Commission* case, the Court underlined with respect to Article 101 TFEU that there is a presumption that all anticompetitive conduct by nature harm consumers given the fact that they distort the structure of the market[18].

Moreover, in *Konkurrensverket v. TeliaSoneraSverige case*[19] it has been explained that Article 102 TFEU is one of the competition rules referred to in Article 3 para 1 (b) TFEU which are necessary for the functioning of that internal market. The function of those rules is precisely to prevent competition from being distorted to the detriment of the public interest, individual undertakings, and *consumers*, thereby ensuring the well-being of the European Union.

Furthermore, the word consumer also appears in the Merger regulation, in which it is stated: '' *It is possible that the efficiencies brought about by the concentration counteract the effects on competition, and in particular, the potential harm to consumers, that it might otherwise have and that, as a consequence, the concentration would not significantly impede effective competition* […]''[20]. Similar statements have been found in the Vertical Guidelines, The Commission's Article 102 on Guidance Paper in the area of exclusionary abuse[21], and the Commission guidelines on the application of article 101 of TFEU. According to the latter, the primary objectives should be the protection of competition as a means of enhancing

[16] Case C-8/08, 2009, ECLI:EU: C:2009:343, para 38.

[17] Ibidem note 16, It concerns fines which that authority imposed on those undertakings for breach of Article 81 EC and Article 6(1) of the law on competition (Mededingingswet), in the version resulting from the law amending the law on competition (Wet houdende van de Mededingingswet) of 9 December 2004 ('the Mw').

[18] Joined cases C-501/06 P, C-513/06, C-515/06 P and C-529/06 P, ECLI:EU: C:2009:610, GlaxoSmithKline Services Unlimited v. Commission of the European Communities, Judgment of the Court

[19] Case *C-52/09,* 2011, ECLI:EU:C:2011:83

[20] Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EU Merger Regulation), OJ L 24/1, 29.1.2004.

[21] Commission's enforcement policy in the area of exclusionary abuses of dominant positions by saying that ''in applying Article [102] to exclusionary conduct by dominant undertakings, the Commission will focus on those types of conduct that are most harmful to consumers.''

consumer welfare and an efficient allocation of resources and in case of conflict, the economic objective of consumer welfare should prevail independently.

In conclusion, the goal of enhancing consumer welfare appears in different speeches given by officials of the European Union. The most significant speech was pronounced by Joaquìn Almunia, the Vice President of the European Commission responsible for competition policy, from 2010 to 2014, at the European Competition Day in Madrid. Where he stated that: ''*All of us here today know very well what our ultimate objective is: competition policy is a tool at the service of consumers. Consumer welfare is at the heart of our policy and its achievement drives our priorities and guides our decisions*.''

1.3. How Does Competition Policy Affect Productivity and Economic Growth?

The correlation between competition in an economy and its long-run growth is still an ongoing debate. However, there are several empirical studies from which it is possible to infer the following statements. Firstly, competition results in goods and services being provided to consumers at a lower price. Consumers with a different variety of firms obtain the capability to choose, which leads to higher competition between firms producing the same kind of products or substitutes. It has been proven that firms visaged with the vigorous competition are regularly ironed to become more efficient and more productive. In particular, managers driven by competition are elicited to decrease waste, improve the technical capacity of the production, and abandon obsolete production techniques and operations in favour of the latest technologies led by increasing innovation.[22] In accordance with several studies demonstrating the effect on productivity correlated to an introduction of competition law.

One of the studies taken into account is from the British economist Stephen Nickell, his report is based on the analysis of roughly 700 manufacturing companies in the United Kingdom between 1972 and 1986. The economist found that higher competition is statistically significantly associated with faster productivity growth and specifically wrote: "*Most important, I present evidence that competition, as measured by increased numbers of competitors or by lower levels of rents, is associated with a significantly higher rate of total factor productivity growth.*" [23].

Other studies have been presented by Blundell, Griffith, and Van Reenen with an examination of the empirical correlation between market share, technological innovation, and stock market value. In the paper, the results produced to outline the positive effect of market share on innovation and patents although

[22] Chadwich Teo, *Competition Policy and Economic Growth,* Paper for the ASEAN Conference on Fair Competition Law and Policy in the ASEAN Free Trade Area in Bali, 4-8 March 2003, pag.7
[23] Stephen J. Nickell, *Competition and Corporate Performance*, The Journal of Political Economy, University of Oxford, August 1996

increased product market competition in the industry tends to arouse innovation.[24] Another study, Aghion *et al*, exploit from a micro-level the productivity growth of firms with patent panel data for the UK and the wave of reforms that in the 1980s introduced greater competition in the economy and he has found that entry from foreign firms has led to greater innovation and faster total factor productivity growth of domestic incumbents, and thus to faster aggregate productivity growth. Additionally, it was suggested that product market competition works to increase productivity due to increased managers' incentives to work hard with respect to shareholders' interests.

The last study considered is from Dutz and Hayri [25], in which they looked at the substantial link between the intensity of competition across the economy and economic growth. They created three categories of variables relating to policy, structure, and mobility to indicate the intensity of economy-wide competition. In sectors where competition is directly promoted, policy metrics reflect the quality of the microeconomic incentive system as well as the supporting legal and regulatory framework. From an economy-wide perspective, structure variables reflect the degree to which market structure is concentrated. The ease with which new businesses can enter and flourish in any market is captured by mobility variables. Their findings show a robust link between the effectiveness of competition policies and economic growth. They came to the conclusion that competition policy has a strong impact on growth, outperforming trade liberalization, institutional quality, and a generally favourable policy environment.

Lastly in sectors that have lost their competitiveness, competition forces restructuring. Money and resources migrate away from weak, uncompetitive sectors and towards more competitive sectors as enterprises compete for capital and other resources throughout the economy. As a result of competition, resources are directed to their most efficient use, resulting in the closure of inefficient enterprises and the release of resources for more productive uses.

1.4. Sustainability: The New Factor of the Last Century

As previously stated, since the 1990s European Competition Authorities have decided to pursue economic objectives. However, in the last few decades, there has been a growing debate concerning whether no economic objectives, such as sustainability and environmental factors should be incorporated into the application of competition rules.

[24] Richard Blundell, Rachel Griffith, and John Van Reenen, *Market Share, market value and innovation in a panel of British manufacturing firms,* Review of Economic Studies Vol.66, University College London, July 1999

[25] Mark A. Dutz and Aydin Hayri, *does more intense competition lead to higher growth?* Policy Research Working Paper Series from the World Bank, April 2000

To begin with, it is fundamental to define what sustainability means in the current era and its impact on our perspective. The term ‘sustainability’ refers to a capacity to sustain something, such as a person or a habitat for an indefinite period. This notion is implied in the term sustainable development, which was defined in the World Commission on Environment and Development’s 1987 Brundtland Report ‘’ Our Common Future’’ as a *‘’development that meets the need of the present without comprising the ability of future generations to meet their own need.’’*[26]. In this sense, it is conceived as a development based on the ability of our world to absorb and keep pace with the hectic human activities and our global and industrialized market, with a need for radical change in the exploitation of natural resources and non-negotiable ecological limits of our planet. Furthermore, with this statement, three different goals were identified for sustainable development: environmental, which is the one that this thesis will discuss, and social and economic goals. Only with the balancing of these three components, economic growth is still possible, while preserving the environment, and that growth may foster ecological protection and social equity. [27]

During that period there was a growing realization that it was impossible to divide economic and environmental issues, and both affected each other in different ways. To date, as the United Nations Secretary-General António Guterres stated ‘’ *Climate Change is the defining challenge of our time’’*. [28] Different resolutions have been adopted in order to promote sustainable development in our economy. The last one is the UN Resolution 70/1 adopted by The United Nations General Assembly in 2015, which is titled *‘’Transforming our world: the 2030 Agenda for Sustainable Development’’*. The resolution simply referred to as the *2030 Agenda* is a ‘’*plan of action for people, planet, and prosperity*’’ setting out guidance for all countries to implement policies inclined toward sustainable development until 2030. The resolution is characterized by 17 sustainable development goals with 169 associated targets, which are integrated and indivisible, all grounded in the economic, social, and environmental dimensions of sustainable development. The important factor underlined is the need for private and public companies to implement more sustainable practices. They encourage companies, especially large and transnational ones, to adopt sustainable practices and to integrate sustainability information into their reporting cycle[29]. Specifically, it is mentioned the importance of the private sector, which should embrace the challenge of sustainability because there are many environmental problems that the state cannot possibly address rapidly or effectively alone. Indeed, the private sector’s initiatives would be fundamental to achieving environmental sustainability and would be faster and easier to implement thanks to their decision-making and restricted environment. However, this should not result in a greenwashing effect[30] and a run for the green economy market’s profit.

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[26] World Commission on Environment and Development, 1987, pag.43

[27] Kent E. Portney, *Sustainability*, The Mit Press Essential Knowledge Series, October 2015, pag.6

[28] Report to the UN Secretary General’s Climate Actions Summit: WMO, *United in Science*, 2019, It was reported that it would be needed a sharp and urgent decline in greenhouse gas emission, otherwise global warming would surpass 1,5°, a final threshold to the beginning of irreversible ecosystem loss and human catastrophe.

[29] The 2030 Agenda for Sustainable Development, Goal 12.6

[30] Greenwashing is a common marketing strategy adopted by companies and organizations finalize to construct a fictional ecologically responsible image among the public. Priyanka Aggarwal and Aarti Kadyan, *Greenwashing: The Darker Side of CRS*, Indian Journal of Applied Research, p.61-65

For example, a recent analysis by Professor Richard Heede from the Climate Accountability Institute in the United States reveals the role of the big private oil companies in a climate emergency.[31] The most polluting investor-owned companies are ExxonMobil, Shell, Chevron, and BP, which overall account for almost 7% of global industrial greenhouse gas emissions and they are a part of the 100 companies responsible for 71% of global emissions with 30 million metric tons of C02 emitted. On the other hand, different kinds of polluters are Coca-Cola, Pepsi, and Co, and Nestle, which, according to the Break Free from Plastic Movement, represent the three largest plastic polluters in the world.

To conclude, this overall concept is founded on the basis that a continuous depletion of resources and their degradation will lead to a decrease in economic growth and development. Sustainable development's final purpose is to change the quality of economic growth to adapt it to our necessities and ensure the wellbeing of the population.

Another response to these challenges is the European Green Deal for the European Union and its citizens, a set of policy initiatives, proposed by the European Commission. As it was declared by President Von der Leyen it is the possibility for the European Union to act as a global leader, a "European man on the moon moment''. Indeed, it is conceived as an action plan with specific milestones, some of the most important policy areas are: Increasing the EU's climate ambition for 2030 and 2050[32], supplying clean, affordable, and secure energy, and mobilizing industry for a clean and circular economy. It underlines a need for a modern, resource-effective, and competitive economy to face the threat of climate change and spread the message that now, more than ever, businesses should cooperate and innovate for the benefit of the environment.
One specific area is the EU Action Plan for the Circular Economy, which has been adopted in order to boost competitiveness, generate new ''green'' jobs, and lead to sustainable economic growth. A clear message to companies to move forward and embrace this new path in order to minimize the generation of waste.

1.5. Environmental Sustainability in European Treaties and a Deep Understanding of the Fundamental Articles

European authorities conceived the importance of protecting the environment and human health while they were drafting the treaties establishing the European economic community (EEC), without directly mentioning it in the treaties. These principles gained international recognition during the UN Conference in

[31] Richard Heede, *Tracing anthropogenic carbon dioxide and methane emissions to fossil fuel and cement producers 1854-2010, Climate Change* 122, 229-241, November 2013, https://doi.org/10.1007/s10584-013-0986-y

[32] The European Union aims to be climate neutral by 2050, achieving net-zero greenhouse gas emission for EU countries as a whole and reducing its greenhouse gas emissions by at least 55% by 2030 from 1990 levels.

Stockholm[33] in 1972 but it was more than 14 years later that they gained a legal basis in Europe after several Member states were criticized due to their lack of it. It first started in 1987 with the formalization of Article 25 of the single European act (SEA), in which they established title VII on environment, characterized by Articles 130 R-T, now art.191-193 TFEU. Furthermore, the drafters of the Maastricht Treaty in 1993 introduced several amendments to the original treaties in order to strengthen this commitment. They redefined the objective of EU economic policy in terms of promoting sustainable and non-inflationary economic growth and they preferred to address sustainable development as ''sustainable growth with respect for the environment ''[34] given the priority to meeting human needs. The articles in the Environment title were reinforced and based on the precautionary principle. In addition, the principle of integration has been brought forward in order for environmental protection requirements to be integrated into the definition and implementation of other Community policies[35]. It is important to underline the change in the decision process with the co-decision procedure, which enhances the role of the European Parliament with the right of veto in some instances. While, the treaty of Amsterdam, which entered force in 1999, provided a step forward to the promotion of environmental issues with the integration of environmental protection with other policies. In the latter treaty, it was the first time in which ''sustainable development'' was conceived as a European objective and it became part of the EU's policies rather than a legal rule. At the same time, Article 2 was modified, in which the words '' sustainable growth'' and ''balanced development'' were amended to '' harmonious, balanced, and sustainable development of economic activities, sustainable and non-inflationary growth''. After this treaty, new approaches to environmental policy development were added such as the Cardiff process[36]. The last treaty, the Lisbon treaty of 2009, is a set of amendments to the two main treaties of the European Union: The Treaty of the Functioning of the European Union (TFEU) and the Treaty on European Union (TEU) and it is characterized by the unitary role of the European Union to fight against climate change and guarantee sustainable development. For the TFEU, Article 6 of the TEC has been shifted to Article 11 of TFEU under the ''Provisions having general application'' and Article 2 of the TEC has been replaced with Article 3 of the TFEU. Moreover, this treaty underlines the importance of fighting

[33] The United Nations Conference on the Human Environment, having met at Stockholm from 5 to 16 June 1972, having considered the need for a common outlook and for common principles to inspire and guide the peoples of the world in the preservation and enhancement of the human environment. 26 different principles were proclaimed.

[34] ECC Treaty, Art.2 amended, "The Community shall have as its task, by establishing a common market and an economic and monetary union and by implementing the common policies or activities referred to in Article 3 and 3a, to promote throughout the Community a harmonious and balanced development of economic activities, sustainable and non-inflationary growth respecting the environment, a high degree of convergence of economic performance, a high level of employment and of social protection, the raising of the standard of living and quality of life and social cohesion among Member States."

[35] Bär, Stefani, and R. Andreas Kraemer. "*European Environmental Policy after Amsterdam ''* Journal of Environmental Law, vol. 10, no., 2 Oxford University Press, 1998, pp. 315–30, http://www.jstor.org/stable/44248185.

[36] The Cardiff Process was launched by the UK presidency of the European Union in order to help to address the Treaty requirements to integrate environmental considerations into EU policies and activities. With a particular consideration on Agriculture, Energy and Transport at first and Development, Industry, and Internal Market after.

climate change, not only on a national level but also on an international level based on the differences of each region of the European Union. An interesting addition was the introduction of the Union energy policy, title XXI, which shall aim to promote energy efficiency and energy saving and the development of new and renewable forms of energy, with the need to preserve and improve the environment.

1.5.1. Environmental Objectives: Article 191/193 TFEU

The following articles are the basis of the environmental policy of the European Union.

Article 191 of the TFEU states that: *''Union policy on the environment shall contribute to pursuit of the following objectives: preserving, protecting and improving the quality of the environment, protecting human health, prudent and rational utilization of natural resources, promoting measures at international level to deal with regional or worldwide environmental problems, and in particular combating climate change* […] *Union policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the Union*. […] *that environmental damage should as a priority be rectified at source and that the polluter should pay*. […] *In preparing its policy on the environment, the Union shall take account of available scientific and technical data, environmental conditions in the various regions of the Union, the potential benefits and costs of action or lack of action, the economic and social development of the Union as a whole and the balanced development of its regions.''* [37]

In this Article four different objectives are listed, the first one there is a claim on the capacity of the Union to improve the environment and restore its original status of it. Nevertheless, this objective was conceived by different commentators as a '*'cynical embellishment used to legitimize difficult compromises*" [38] circumventing a concise definition of what improvements are and what actions should be taken into account, leaving unlimited possible actions. The second objective is the protection of human health on a different basis such as, for instance, the protection of the food in agriculture or air pollution issues. Indeed, it is recognized the interconnection between the environment and the overall well-being of a human creature. The third objective is the prudent and rational utilization of natural resources. The last objective states the promotion of measures at a regional and international level for, in particular, combating climate change, without any additional obligations. However, it is necessary to stress that EU environmental policy refers not only to the preservation of biological diversity or to the fight against pollution but also to indirect measures

[37] Consolidated version of the Treaty on the Functioning of the European Union - PART THREE: UNION POLICIES AND INTERNAL ACTIONS - TITLE XX: ENVIRONMENT - Article 191 (ex-Article 174 TEC)
Official Journal 115, 09/05/2008 P. 0132 - 0133

[38] Misonne Delphine, Transnational Environmental Law; Cambridge Vol. 4, Fasc. 1, (Apr 2015): 11-36.

such as liability for environmental damage and the right to participate in decision-making on activities that may affect the environment[39].

In para. 2 of Article 191 is stated the principle of polluter-pays, according to which the polluter who causes the environmental damage or is at the beginning of an imminent threat is required to bear the cost of the necessary preventive or remedial measures without any additional taxation on taxpayers, as it is stated in the Directive 04/21/2004 n.2004/35/EC.[40] This principle contributes first of all to the achievement of the EU's goals and the prevention of distortion of competition among various actors in the Union[41].

While Article 193 of the TFEU expresses that: '' *The protective measures adopted pursuant to Article 192 shall not prevent any Member State from maintaining or introducing more stringent protective measures. Such measures must be compatible with the Treaties. They shall be notified to the Commission''*[42].
This article lays down the principle of minimum harmonization for measures adopted on the legal basis of Article 192 TFEU. Member states are free to pursue any environmental policy but under the condition that the provisions do not breach the treaty.

1.5.2. Article 11 TFEU – Principle of Integration

Article 11 of the TFEU states:
''Environmental protection requirements must be integrated into the definition and implementation of the Union's policies and activities, in particular with a view to promoting sustainable development.''[43]

This article provides the codification of the environmental integration core of the principle of sustainable development.[44] This implies an obligation for the European institutions to guarantee in the legislative process, closely related to Article 3 para.3 of TEU, that different policy is based on the high level of protection and improvement of the environment, in other terms, it requires an action on behalf of the Members to at least execute certain safeguards. For the European Institutions, sustainable development has been defined as the overarching long-term goal in which economic growth, social cohesion, and environmental protection go hand in hand and are mutually supporting[45]. The rationale behind this article

[39] Langlet David and Mahmoudi Said, *EU Environmental Law and Policy*, Oxford University Press, 2016, pag. 33
[40] European Parliament and Council Directive on environmental liability with regard to the prevention and remedying of environmental damage
[41] Jand and Vedder, *European Environmental Law*, Third edition, Europa Law publishing, January 2008
[42] Consolidated version of the Treaty on the Functioning of the European Union, PART THREE - UNION POLICIES AND INTERNAL ACTIONS, TITLE XX – ENVIRONMENT, Article 193 (ex-Article 176 TEC)
[43] Consolidated version of the Treaty on the Functioning of the European Union, PART ONE – PRINCIPLES, TITLE II - PROVISIONS HAVING GENERAL APPLICATION, Article 11 (ex-Article 6 TEC)
[44] Beate Sjafjell, *The Greening of European Business under EU Law*, Chapter 4, The legal Significance of Article 11 TFEU for EU Institutions and the Member States,
[45] European Commission, Mainstreaming Sustainable Development into EU policies: 2009 Review of the European Union Strategy for Sustainable Development, COM (2009) 400 final, July 2009

lies in the realization that EU environmental objectives may be hindered by the developments in other policy fields and therefore they require a continuous ''greening'' of each union policy and activities. In the case of law, this article has been defined as '' *Article 11 is not merely programmatic; it imposes legal obligations''*[46], it highlights the possible reach of environmental integration obligation and can provide further legitimacy to environmental protection as a mandatory requirement.

1.5.3. Article 3 and Article 21 TEU

Both of these articles refer to EU external policies.

Article 3 para. 3 of the TEU declares: '' [...] *In its relations with the wider world, the Union shall uphold and promote its values and interests and contribute to the protection of its citizens. It shall contribute to peace, security, the sustainable development of the Earth, solidarity and mutual respect among peoples, free and fair trade, eradication of poverty, and the protection of human rights, in particular the rights of the child, as well as to the strict observance and the development of international law, including respect for the principles of the United Nations Charter.''*[47]

This article foresees a solidary-based economic perspective and underlines the will of the European Union to impose itself as a bearer of values and principles for the well-being of its citizens and the sustainable development of the earth is one of them.

While Article 21 para. 2 sub (d) and (f) of the TEU expresses: *[...] The Union shall define and pursue common policies and actions, and shall work for a high degree of cooperation in all fields of international relations in order to: [...] foster the sustainable economic, social and environmental development of developing countries, with the primary aim of eradicating poverty; [...] help develop international measures to preserve and improve the quality of the environment and the sustainable management of global natural resources, in order to ensure sustainable development''*[48]

Here there is underlined the importance of external policies and relations in order to promote environmental considerations and there is proposed a twofold approach to sustainable development. Firstly, sustainable development is envisaged in the view of cooperation with developing countries. Secondly, the perspective of the sustainable management of global natural resources and it is suggested

[46] Opinion AG Jacobs Case C-379/98 P*reussenElektra v. Schleswag,* ECR I-2099 231; Opinion
[47] Consolidated version of the Treaty on European Union - TITLE I: COMMON PROVISIONS - Article 3 (ex-Article 2 TEU) , *Official Journal 115, 09/05/2008 P. 0017 - 0017*
[48] Consolidated version of the Treaty on European Union- TITLE V: GENERAL PROVISION ON THE UNION'S EXTERNAL ACTION AND SPECIFIC PROVISION ON COMMON FOREIGN AND SECURITY POLICY- Article 21 (ex-Article 36 TEU)

a trade policy committed to participating in multilateral efforts towards liberalization. To conclude, it requires that the EU consider environmental preservation as a part of its objectives.

1.6. Recognition of Environmental Protection as a Mandatory Requirement in the European Court of Justice Cases

The European court of justice (ECJ) was fundamental in order to gain a full comprehension of environmental policy in the European Union. Two years prior to the single European act, the European court of justice provided a judgement on the ADBHU case[49] in which it clarifies that the protection of the environment may precede the free movement of goods and that '*'Environmental protection [...] is one of the community's essential objectives*''[50]. This case provides an insightful view on whether the disposal of waste oils was related to the principles of free trade and movements of goods and competition. In the seventh recitals in the preamble to the directive[51], whose interpretation is the subject of the case, it is stated that:
'' *Any legislation dealing with the disposal of waste oil must be designed to protect the environment from the harmful effects caused by the discharge, deposit, or treatment of such product. [...] The treatment of waste oil must not create barriers to intra-community trade''*.[52]

In particular, this refers to the fact that the measures provided in the directive although they may restrict competition and freedom of goods, they must not be discriminatory nor exceed the inevitable restrictions justified by the pursuit of environmental protection which is a general interest.
In the end, the judgement of the ECJ determined that member states are obliged to prohibit any form of waste waste-oil disposal which might harm the environment and national legislation prohibiting the burning of waste oils otherwise than in special plants and by approved operators is not incompatible with directive no. 75/439.

However, the integration principle was applied, and the environmental protection was established as a legitimate ground for taking trade-restrictive measures outside the scope of Article 36 TFEU[53] only with the Danish Bottle Case [54]. Indeed, the Commission brought an action against the new bottle

[49] Case 240/83, *Procureur de la République v. Association de défense des brûleurs d'huiles usages (ADBHU)*
[50] Case note 48, para. 13
[51] The directive to which this case refers is the directive no. 75/439/EEC of June 1975 on the disposal of waste oils, Official journal 1975 L194, pag. 23
[52] Judgement of the Court of 7 February 1985- Procurer de la Republique vs. ADBHU- Reference for a preliminary ruling:
[53] Article 36 TFEU (ex-Article 30 TEC) stated that: '' *the provision of Articles 24 and 25 shall not preclude prohibitions or restrictions on imports, exports or goods in transit justified on grounds of public morality, public policy or public security; the protection of health and life of humans, animals or plants; [...] Such prohibitions or restrictions shall not, however, constitute a mans of arbitrary discrimination or a disguised restriction on trade between Member States.''*
[54]Case 302/86, ECLI:EU:C:1988:421, Commission of the European Communities vs. Kingdom of Denmark, about the free movement of good and containers for beer and soft drinks.

recycling system for beers and soft drink containers introduced by the Kingdom of Denmark, which failed to fulfil the obligations of the Member state under Article 30 of the ECC Treaty[55]. With a more stringent system, which would only include 30 different types of reusable container shapes specifically approved by the National Agency for the Protection of the Environment, foreign suppliers would incur a substantial increase in production costs that could limit their participation in the Danish market. For the ECJ the restriction was justified due to its correlation with the protection of the environment. But in order for the justification to apply the recycling system had to be proportionate in achieving the environmental aim; however, in the present case due to the restriction on the shape of the container, the requirement was disproportionate to the objective pursued.

A different decision-making procedure on market regulations and the environment was the basis of the *Titanium dioxide* case [56] in 1991. This case is characterized by the annulment of directive 89/428 EEC[57] on the harmonization of rules on the reduction of pollution caused by titanium dioxide waste, adopted unanimously by the Council on Article 130s of the EEC Treaty. In particular, the Commission brought an action against it because the directive should have been based on Article 100a which required a qualified majority, not on Article 130s which required unanimity.

This summarized the continuous conflict between the Council and the Commission, and the decision was fundamental for shaping the future evolution of the Treaties on environmental issues, elucidating the role of the court as a mechanism for implementing significant political changes and requiring a qualified majority voting in the environmental field.

The last case to analyze is the *Preussen Elektra* case [58] decided in 2001, which is concerned with a German electricity scheme and its compatibility with the European Union law. In particular, this scheme was characterized by German network operators purchasing 'local' electricity produced from renewable sources. Despite in previous cases analyzed the restriction of free movements in an internal market was considered discriminatory, this was the only case in which the ECJ stated that the enacted measure of ''buy local'' was not against the law.

The ECJ provided two different explanations, the first one is related to the use of renewable energy in order to protect the environment as it contributes to reducing the overall emission of greenhouse gases, which is

[55] Article 30 ECC (ex-Article 25 TEC) stated that: '' *Custom duties on imports and exports and charges having equivalent effect shall be prohibited between Member States. This prohibition shall also apply to customs duties of fiscal nature.''*

[56] Case C-300/89, ECLI:EU: C:1991:244, Commission of the European Communities v. Council of the European Communities, directives on waste from the Titanium dioxide industry

[57] The Council directive 89/428/EEC of June 1989 refers to the procedures harmonizing the programmes for the reduction and eventual elimination of pollution caused by waste from titanium dioxide insutry

[58] Case C-379/98, ECR I-2099, ECLI:EU:C:2001:160, PreussenElektra AG v Schhleswag AG, in the presence of Windpark Reußenköge III GmbH and Land Schleswig-Holstein, on renewable source of energy, state aid and compatibility with the free movement of goods

one of the primary objectives of the members of the Union and it further was the first time that the ECJ mentioned Article 6 EC, in which environmental protection requirements should be integrated into the definition and implementation of other Community policies and activities. The second is related to the power distribution system of electricity, which is, for the ECJ, difficult to curb from its power plant to its final destination.

To date, it was possible to demonstrate that the ECJ had a public interest in environmental protection before it was even provided in the Treaties of the EU and during the last century this commitment was expanded and adapted to the current environmental issues. For instance, the ECJ plays an important role in the implementation of the Environmental Impact Assessment (EIA) Directive [59], like in the case of the Republic of Ireland, which failed multiple times to ensure the assessment of environmental impacts of projects. In both cases in which Ireland was involved, under Article 260 of the TFEU, the Commission has referred the matter to the Court of Justice due to a lack of necessary measures to comply with a judgment of the ECJ itself [60]. A second reference could be made to the role of ECJ in different disputes between the Member States, for example, the currently open case between Poland and the Czech Republic, in which the latter filed a lawsuit accusing the Polish government of prolonging the mine's permit at the Turòw lignite mine near the border without any assessment on environmental effects.

1.7. What Role Do Competition Law and Policy Have for Sustainable Development and Preservation of the Environment?

The debate regarding non-economic factors in competition law is well known. The Commission declared that such factors must be excluded from competition analysis because the consumer welfare standard requires a narrowly economic assessment[61]. However, there is no basis for the adoption of this test in the treaties and neither in the EU law and during the last decade there has been an overall shift in the common belief concerning the relation between competition policy and environmental issues. There is not a specific answer to respond to the question of whether competition policy should consider environmental issues, it depends on the legal framework taken into consideration and it may vary for example within different jurisdictions. Indeed, as it was stated by the Margrethe Vestager, the commissioner of competition,

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[59] The Environmental Impact Assessment Directive (85/3377/ECC) is in force since 1985 and it is a specific instrument for the implementation of EU environmental policy. It was amended three different times, in 1997 (97/11/EC), Directive (2003/35/EC) of 2003 and (2009/31/EC) of 2009, now codified in the directive 2011/92/EU. It was created in order to ensure a comprehensive assessment on environmental effects of private and public projects, which could have a significant negative impact on the environment.

[60] Environmental impact assessment: Commission takes Ireland back to the Court and proposed fines, 25 January 2018, https://ec.europa.eu/commission/presscorner/detail/en/IP_18_355

[61] Svend Alboek, *Consumer Welfare in EU Competition Policy*, DJØF Publishing, January 2013

in a recent conference in Brussels[62], competition policy is not going to replace the environmental laws or green investment, but the question is whether these rules could be applied in order to support the Green Deal and promote fair competition with a view on the green future of our countries. The commissioner also stated that competition policy already has played a vital role in supporting green goals. On one hand, it has helped to drive innovation and develop new technologies that are able to reduce the whole waste in the production chain, and on the other hand, it helps to keep prices low for future investments. Furthermore, the EU competition commissioner Vestager reinforced her position in a recent interview[63] in February 2022 in which she stated that she does not justify anticompetitive conducts that cause harm to those in the market, even if these could lead to wider sustainability benefits to a broad range of customers.

From the entrepreneurs' and businesses' standpoint, they want to be a part of the solution, indeed, the Business Roundtable in 2019 issued a statement[64] committing to *'' protect the environment by embracing sustainable practices across our businesses''*. This is correlated to a recent study from Green Print, an environmental technology company, which found out that more than 83% of interviewers believe that sustainability is one of the most important attributes of a company and they are more willing to buy an eco-friendly product. This lies in the fact that consumers' perception makes them feel sustainability as a quality improvement of the product and constitutes a benefit. Nonetheless, this perception does not reflect the current market behaviour, indeed even environmentally conscious consumers rarely translate green concerns and intentions into an actual purchase behaviour[65], and this could lead to market failure[66]. As it was stated by the economist Lord Nicholas Stern in 2007: '*'Climate change is a result of the greatest market failure the world has seen.*''[67]. Other examples of environmental market failure are deforestation, overfishing, plastic or air pollution, loss of biodiversity, illegal poaching, pollution from agriculture, and emission from vehicles. All of these events do not fall on those conducting the activities but on future generations or people living in

[62] Executive Vice-President Vestager's keynote speech at the 25th IBA Competition Conference, delivered by Inge Bernaearts, Director, DG Competition, https://ec.europa.eu/commission/commissioners/2019-2024/vestager/announcements/competition-policy-support-green-deal_en

[63] Charley Connor, *Vestager unwilling to consider out of market sustainability benefits,* Global Competition Review, 3 February 2022, https://globalcompetitionreview.com/european-commission/vestager-unwilling-consider-out-of-market-sustainability-benefits

[64] Statement on the Purpose of a Corporation, https://opportunity.businessroundtable.org/ourcommitment/

[65] Co-operative Bank (2011), "Ethical consumerism report", available at: www.goodwithmoney.co. uk/ethical-consumerism-report-2010

[66] Market failure by definition occurs when the price mechanism fails to deliver an efficient or equitable allocation of scarce resources

[67] Nicholas Stern: Climate Change, Ethics and the Economics of the Global Deal, November 29, 2007, https://economistsview.typepad.com/economistsview/2007/11/nicholas-stern.html.

developing countries [68]. Therefore, they are called ‘’negative externalities’’, which means that are usually ethical rather than an economic incentive for businesses.

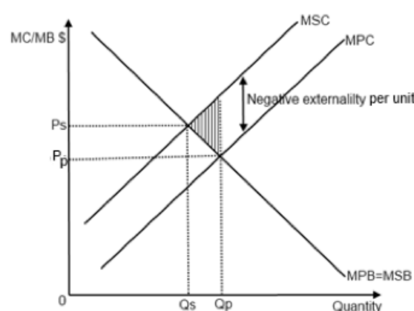

Figure 6: Negative externalities effect on production[69]

From a microeconomics point of view, the results of negative externality are provided in figure 6, in this case, the output produced in a given market is higher than the optimal level. Furthermore, under monopoly conditions the market price is higher than the price under perfect competition, this leads to a loss of welfare in the society called deadweight loss. A similar situation happens with negative externalities, in this case, the marginal private cost curve (MPC) is lower than the marginal social cost curve (MSC), because it takes into account not only the private cost but also the negative externalities, indeed it is the total cost to society. This means that at the equilibrium the efficient market price will be equal to Ps and output equal to Qs, where social marginal costs are equal to social marginal benefit. The price is lower than the efficient level because it does not reflect all the social costs related to the production of a given level and the output is higher than the optimal level for the society as a whole because it doesn’t take into account negative externalities. Its implication relies on the fact that if goods or services have negative externalities, then there will be a market failure.

The question is what happens on both sides of the economic actors?

There are two different market failures based on the actors of the economy, the consumer, and the producer. On the demand side, market failures happen when consumers’ full willingness to pay for environmental or social costs is not fully captured unless other consumers pay an equivalent amount. A second factor is related to hyperbolic discounting, which is based on behavioural economic consideration, is the tendency to increasingly choose a smaller-sooner reward over a larger-later reward as the delay occurs sooner rather than

[68] Alex Bowen, Simon Dietz and Naomi Hicks of the Grantham Research Institute at LSE, *Why do economist describe climate change as a market failure?,* The Guardian, 21 May 2015
[69] Figure 6: Negative externalities effect on production, https://14nakara.wordpress.com/2012/10/18/economics-chapter-6/

later in time.[70] From this thesis point of view is the underestimation of the future costs of the negative impact or damage of certain activities on the environment. In addition, there are behavioural biases which are irrational beliefs or behaviours that can unconsciously influence the decision-making[71] and discourage consumers from trying new products. Lastly, consumers are still not informed about the lasting effect of their consumption and rely only on improper mass media, in-store communication, and perceived prices.

Whereas on the supply side, it occurs when the supply curves do not reflect the full cost of producing a good or service and in particular external costs of producing the good are not reflected in supply. One of the main problems that appear is the collective action. As it is stated by Taylor collective action problem exists where rational individual action can lead to a strictly Pareto-inferior outcome, that is, an outcome which is strictly less preferred by every individual than at least one other outcome.[72] In this case it implies that individuals will not cooperate to overcome environmental problems and there is no incentive. Indeed, when a firm invests in order to make its production chain greener, undoubtedly, it has to raise its prices in order to first of all stabilize the overall cost for sustainable raw materials, machinery or certifications and secondly to maintain its economic growth and profit, but this could lead to be cut off from the industry due to cheaper but polluting companies that are able to maintain lower prices , the so called ''first mover disadvantage''. Furthermore, according to a recent survey, 60% of businesses had shied away from cooperation with competitors for fear of competition law[73].

The ultimate question is: Should antitrust law intervene in order to correct this market failure and be a part of the new approach to the environment?

Some commentators have argued that the consumer welfare standard, applied in the EU competition system, not only should include the traditional dimension such as price, quality, variety, consumer choice and innovation but also considered the additional cost and in general, the negative externalities that are inherent with production and supply of certain products and services. According to these scholars, in taking decisions relating to different practices implemented by firms, the antitrust authority should also take into account the possible negative impact on the environment and the same is for the courts. However, there is still an ongoing debate on this issue with a general acceptance to adapt competition law to a new green economy, The European Commission recently states that '' *environmental policies will be effective only if firms are pushed to innovate by competing intensely and fairly with each other''* but there are several circumstances in which it would not be sufficient. Indeed, an industry initiative to tackle sustainability can breach competition

[70] Joseph P. Redden, *Hyperbolic Discounting*, Encyclopedia of Social Psychology, ed. Roy Baumeister and Kathleen D. Vohs, Thousand Oaks, 2007

[71] Ben Seager-Scott, *Are behavioural biases affecting your investment decisions?* https://www.tilney.co.uk/news/are-behavioural-biases-affecting-your-investment-decisions

[72] Micheal Taylor, *The possibility of Cooperation*, Cambridge University Press, 1987

[73] Directorate for Financial and Enterprise Affairs Competition Committee, Climate Change and Competition Law-Note by Simon Holmes, Hearing on Sustainability and Competition, December 2020

rules and in order to encourage companies to shift to a greener position, the Commission will provide guidance regarding whether cooperation complies with antitrust rules in January 2024[74]. In the meanwhile, several national competition authorities such as the Dutch Authority for Consumers and Markets [75]and the Hellenic Competition Commission[76] provided guidance to their national companies, these will be analyzed later in this thesis. In addition, other commentators also call for a more expansive application of the exemption principles with respect to sustainable agreements. Competition rules already provide for exemptions related to the efficiency benefit for consumers with a fair share, however, these benefits could be hard to quantify in the first place with respect to sustainable agreements.

A further explanation was given by the OECD Competition Committee at the Roundtable in December 2020. On this occasion, Dr Maarten Pieter Schinkel[77] explained that with restriction of competition, for example, allowing horizontal agreements amongst competitors, it would not internalise negative externalities. The question that the economist proposed was whether we should expect companies to take more corporate social responsibility in cooperation than in competition. In his answer, he analyzed how people have at least some appreciations for more sustainable products and how corporations are ultimately driven by profit maximization. Furthermore, he revealed that in recent studies[78] it was demonstrated that more competition stimulates corporate social responsibility because when firms are in contrast with each other they are incentivized to promote green innovation and that agreements on price promote sustainability but agreements on sustainability do not [79].

The latter result refers to the idea that firms, in this case in a duopoly, have a profit function which is given by:

$$\pi_1(q_1, q_2, v_1, v_2) = (\alpha + v_1 - q_1 - \gamma q_2)q_1 - kq_1 - \frac{rv_1^2}{2}$$

$$\pi_2(q_1, q_2, v_1, v_2) = (\alpha + v_2 - q_2 - \gamma q_1)q_2 - kq_2 - \frac{rv_2^2}{2}$$

[74] Micheal Ponsard, *Competition Law goes green: The European Commission's new initiatives*, UGGC AVOCATS, 19/10/2021 https://www.uggc.com/en/competition-law-goes-green-the-european-commissions-new-initiatives/
[75] Dutch Authority for Consumers and Markets, Guidelines Sustainability Agreements: Opportunities Within Competition Law, 9 July 2020; ACM Opens Up More Opportunities for Businesses To Collaborate To Achieve Climate Goals, Press Release, 9 July 2020; Draft Guidelines 'Sustainability Agreements', Press Release, 9 July 2020.
[76] Hellenic Competition Commission, Draft Staff Discussion Paper on Sustainability Issues and Competition Law, 16 September 2020.
[77] Dr. Maarten Pieter Schinkel Contribution for the OECD Competition Open Day in December 2020
[78] Such studies are Fernandex-Kranz and Santalò (JE&MStrat, 2010), Flammer (StratMgmtJ,2015), and Simon en Prince (JE&M,2016)
[79] Maarten Pieter Schinkel and Yossi Spiegel, *Can collusion promote sustainable consumption and* production?, International Journal of Industrial Organization, 2017, vol.53, issue C, 371-398

Where q_1 and q_2 are the quantities of two goods, γ is a measure of the degree of product differentiation and $\frac{rv_{1,2}}{2}$ are the associated costs of investment in sustainability. If firms invest in v which is the sustainability level, then consumers will have a higher willingness to pay, and firms are going to profit maximize. The equilibrium could be differentiated based on several market structures such as two firms' competition, two firms coordinate sustainability levels, production cartels and full collusion.

The results provided by the study lead to:

$$v^{pc} > v^{*} > v^{fc} > v^{sc}$$

The sustainability level under sustainability agreements is the lowest. This is due to the fact that firms eliminate a dimension of competition. Therefore, it is possible to determine that the promotion of sustainability is higher when a production cartel is allowed because they benefit fully from their investments with higher prices.

Another intervention was provided by Dr Suzanne Kingston[80], who intervene in the reconciliation of the competition and environmental policies in the European Union. Her argument is based on the fact that environmental science is now well established, and everyone knows that climate change and pollution pose an existential threat to the future of our Earth, with this comprehension also responsibilities of corporations are recognized. In her opinion, there is no justification for the prior exclusion of environmental benefits from the competition assessment and the exclusion of environmental considerations by competition enforces itself represents a normative choice which is at least in the EU not supported by any legal mandate. What she suggests is a case-by-case approach, since consumer welfare standard is perfectly capable to accommodate environmental benefits, in order to not use collusion as a pretext.

To conclude, as it is stated by Dr Simon Holmes, '' *We need to remind ourselves constantly that competition, or indeed the study of economics, is not an end in itself but a means to an end, a means to achieve other goals''*. [81] And this ultimate goal could exactly be the sustainable development and preservation of the Earth.

[80] Dr. Suzanne Kingston Contribution for the OECD Competition Open Day in December 2020
[81] Simon Holmes, *Climate Change, Sustainability and competition law*, Journal of Antitrust Enforcement, Volume 8, Issue 2, July 2020, Pag. 370

CHAPTER II

COMPETITION POLICY ASSESSMENT: CONCENTRATIONS

2.1. Concentrations: General Framework

Concentrations, which are both mergers and acquisition, are transactions that involve a lasting change in the structure of the market and the control of one or more firms[82]. In corporate law, they refer to the combining of two corporations in which one corporation transfers all of its assets, including rights, privileges, and liabilities to the other, which continues to exist[83], creating a single integrated entity. On one hand, as a natural part of the industry evolution, they constitute a major potential for rebuilding, by allowing a new allocation of resources, developing new products and services efficiently, and reducing the production costs.

This could enhance competition both within a defined national industry or on an international level, contributing to gain for both the consumer, with an increase in the quality of the good or service produced[84], and the producer, with the possibility to reduce his distribution or production costs and expand his market share. However, on the other hand, mergers are seen as a mechanism to reduce competition in a given market, by reducing the number of competitors while acquiring most of the market share, limiting or cancelling new entry firms. From the consumers' point of view, this results in higher prices, reduced possibility to choose among different or substitute products, and less innovative products. For these reasons mergers, in Europe but also in any other jurisdiction, are regulated and verified over time by specific authorities to prevent harmful effects on competition or better called anti-competitive effects.

There are different types of concentrations, in this thesis, only three general kinds will be analyzed.

The first one is horizontal concentration, which occur between firms that produce and sell the same relevant products[85]. Depending on the circumstances, they may have a negative or positive effect on competition. Indeed, in the first case, these kinds of concentrations could potentially lead to a decrease in the industry competition intensity[86] with both unilateral effects, by strengthening or creating a dominant position of a firm in the market or in any case by reducing competitive pressure acting as a single monopoly firm, which results in an overall drop of the combined output of the merging firms and increase in the prices and coordinated effects by facilitating coordination between companies. In the second case they could be beneficial to the competitive process by allowing small businesses to create synergies, gaining a greater

[82] Control is defined by Article 3 para.2 of the Merger Regulation as the possibility of exercising decisive influence on a firm, influencing strategic commercial decisions.

[83] Merger (n.d), Collins Dictionary of Law, 2006, https://legal-dictionary.thefreedictionary.com/merger

[84] M. Mazzeo, K. Seim, M, Varela, *The Welfare Consequences of Mergers with Product Repositioning*, December 2012

[85] Glossary of Industrial Organization Economics and competition law, compiled by R.S Khemani and D.M Shapiro, commissioned by the Directorate for Financial, Fiscal and Enterprise Affairs, OECD, 1993

[86] G. Stingler, *Monopoly and Oligopoly by Merger*, Am. Econ. Rev, 40, 1950, pag.23-24

market share with the possibility to influence the price settlement, producing a wider range of goods, and expanding to new markets in different cities or countries, increasing their revenues and reduce costs due to a greater economy of scale. One of the most known cases of a horizontal concentration in the last century was the acquisition of Mobil by Exxon, now Exxon Mobil Corporation (XOM) in 1998 with both companies operating in the oil and gas businesses.

The second type is vertical concentration, which is a concentration between firms operating at different stages of production[87] by acquiring ownership and control over adjacent stages of production[88]. As for horizontal concentrations, vertical ones could potentially lead to an anti-competitive strategy with the capacity of gaining control over the supply chain by excluding competitors and raising rivals' costs.[89]
In those cases, it could happen both directly that vertically integrated firms refuse to supply material to downstream competitors, or indirectly by increasing prices or foreclosing an upstream competitor. Vertical concentrations could be enacted to eliminate potential competition in order to enhance a dominant firm position of an incumbent by increasing barriers to entry for potential entrants, this is done mostly in the high-tech sector. Furthermore, harmful coordinated effects[90] may arise by facilitating collusion among firms at a given level of manufacturing or distribution chain[91]. They may facilitate not only explicit collusion but also tacit collusion, which happens when two or more firms independently agree to conduct a certain strategy without explicitly saying so. Unlike horizontal concentrations, which have direct harm on the number of competitors in a given market, vertical concentrations may facilitate collusion by enabling firms to better monitor and punish deviators.[92]
However, the benefits of this kind of concentrations rely on the fact that they improve not only the coordination between the different units of the firm but also, because of economies of scope, the improvement of cost savings, by sharing common costs. The most recognized example is between Standard Oil Co. of California and Gulf Oil Corp in 1984, one of the largest takeovers in the U.S corporate industry in which the latter firm was bought for 13.2 billion dollars.

The third and last type of concentration is the conglomerate, which occur between firms in unrelated, independent, and non-vertically integrated industries[93]. The relationship between firms in a conglomerate concentration is neither horizontal nor vertical. As it is stated in the EU merger guidelines, they are active in closely related markets, for example, those involving suppliers of complementary products or products that

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[87] Glossary of Industrial Organization Economics and competition law, compiled by R.S. Khemani and D.M Shapiro, commissioned by the Directorate for Financial, Fiscal and Enterprise Affairs, OECD, 1993
[88] Vidhan K. Goyal and Joseph P.H Fan, *On the Pattern and Wealth Effects of Vertical Mergers*, The Journal of Business, Vol.79, No.2, March 2006
[89] P. Gonzaga and G. Erdei, *Vertical Mergers in the Technology, Media and Telecom Sector*, DAF/COMP (2019)5, June 2019, pag.20
[90] Changes in the nature of competitive process that make a collusive equilibrium significantly more likely or stable
[91] Ibidem 76
[92] Ivi pag.22
[93] D.C Muller, *The Effects of Conglomerate Mergers*, Management Research News, vol.1, No.5, pag.6

belong to the same product range. The U.S and EU competition law has a different approach to conglomerate concentrations; however, it is generally accepted that they may provoke anticompetitive effects. Firstly, the main concern relies on the fact that conglomerate concentrations may have an anticompetitive effect through bundling and tying.

Bundling could have different forms, pure bundling occurs when consumers are required to buy a bundle of products, meaning to purchase a group of goods together, instead for mixed bundling, consumers have the possibility to choose between buying the products separately or buying the products all together at a lower price. While tying occurs when the tied good is required to be bought with the tying good (i.e., the ink has to be bought with a printer otherwise the latter would not be able to print). Despite their standard benefit for consumers, they can be used to enhance market power. Indeed, an undertaking with a substantial degree of market power in the tying market can use tying to harm competition inside the tied market. With this, it may lessen the wide number of potential buyers that can be available for its competitors in the tied market, and it may cause its competitors to be less powerful as a competitor or to exit immediately the tied market[94].
The approach is the same also for bundling, where it can reduce demand and revenues for its competitors by means of changing the willingness of purchasers to substitute. Furthermore, it can give rise to multimarket contact, which occurs when firms compete against each other in different markets or the same market in a different geographic area. They may lead to higher prices for consumers, and lower production volumes, however, this also means the firm has higher profits and lower failure rates[95]. These outcomes could be possible because multimarket contact makes coordination among firms easier to control, with any deviators punished immediately, and more effective. One of the latest conglomerate mergers is between Siemens AB and Varian Medical System for 16.4 billion dollars in 2020, with this acquisition Siemens gained a leading position in the fight against cancer.

2.1.1. Ex-Ante Assessment of Mergers: The EU Merger Regulation

Mergers involving companies in the European Union for an ex-ante assessment are regulated by the relevant Regulation No. 139/2004 on the control of concentrations between undertakings, commonly known as the EU Merger regulation[96]. In order to achieve the aim of the Treaty to ensure that competition in the internal market is not distorted[97]. This lays down a general framework to regulate both national and community levels that grants the Commission exclusive jurisdiction in the application of a one-stop-shop system. According to Article 22[98] this system allows the member states to request an examination by the

[94] Jeffrey Church, The impact of Vertical and Conglomerate Mergers on Competition, Final Report for the Directorate-General for Competition, Directorate B Merger Task Force and European Commission, September 2004
[95] H. R Greve and J.A.C Baum, *A multiunit, multimarket world*, Adv.Strateg. Manage.18, January 2000, pag 6
[96] OJ L 24, 29.1.2004, Official Journal 2004, pag.1
[97] Article 3 TEU para.1 (g)
[98] Article 22 of the EU Merger Regulation states that two different legal requirements must be fulfilled: ‘’ One or more Member States may request the Commission to examine any concentration as defined in Article 3 that does not have a community

European Commission for concentrations which, for the same members, do not meet the EU turnover threshold and directly affects competition. The difference between the jurisdiction of the Commission and national competition agencies is that each merger that meets the community dimension test and impedes competition effectively is reviewed by the Commission, whereas those that do not are reviewed by the Member States[99]. Nonetheless, there are many exceptions with a referral mechanism in which both the Commission and NCAs can review mergers that they are not standardly concerned with. For an ex-ante assessment, there is a prior notification system[100], in which merging firms have a duty to report their decision to merge, in order to obtain prior approval by the Commission. It depends on the specific threshold; indeed, the general rules are that if the parties' turnovers meet the thresholds provided for by Article 1[101] of Regulation 139/2004, the transaction must be reported to the Commission otherwise if the EU thresholds are not met, but the parties' turnovers exceed the thresholds provided by each national laws then the merger has to be notified to the national agency. Theoretically, mergers that have effects on international trade between the member states should be examined by the Commission, and Mergers which have an anticompetitive effect on domestic transactions should be examined by the national competition authorities.

In order to assess concentrations, the European Commission in the version of the Regulation No. 4064/1989 on concentrations in 1989 (ECMR) provided a dominance test in order to check whether a merger would be deemed as anticompetitive, in which a concentration could be prohibited if it creates or strengthens a dominant position in the market, as a result of which effective competition would be significantly impeded. To comprehend this test, the concept of dominance was fundamental to establish, however, it was not different from the notion provided in the case *United Brands Company v. Commission of the European Communities*[102]: the dominant position referred to a position of economic strength where a firm has the ability to behave, to a considerable extent, independently of its competitors, customers, suppliers and, ultimately, the final consumer. In this case, there were two different types of dominance: Individual, which is a dominant position of a single firm, and collective, which is a dominant position jointly held by two or more firms that are able to adopt a common course of action. However, the United States was and still

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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.

[99] Slaughter and May, *The EC Merger Regulation: An Overview of the EU Merger Control Rules*, May 2006, pag.9

[100] The prior notification system is provided in Article 4 of the EU Merger Regulation

[101] Article 1 of the EU Merger Regulation states that: […] 2. A concentration has a community dimension where: (a) the combined aggregate worldwide turnover of all the undertakings concerned is more than EUR 5000 million; and (b) 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. 3. A concentration that does not meet the threshold laid down in paragraph 2 has a Community dimension where: (a) the combined aggregate worldwide turnover of all the undertakings concerned is more than EUR 2500 million; (b) in each of at least three Member states, the combined aggregate turnover of all the undertakings concerned is more than EUR 100 million; (c) in each of at least three Member States included for the purpose of point (b), the aggregate turnover of each of at least two of the undertakings concerned is more than EUR 25 million; and (d) 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.

[102] Case 27/76, ECLI: ECLI:EU:C:1978:22

applies a different kind of test, the substantial lessening of competition (SLC)[103]. Under this test, it has been taken into account the reduction of competition in oligopolistic markets in which there is no individually dominant firm and structural conditions are not conducive to tacit collusion. The differences between the latter test and the dominant test rely on the fact that the first one is focused on the effects of the merger on the market and the loss of competition rather than threshold structural issues such as market share.[104] After a review process, the European Commission in Regulation No.139/2004 [105]replaced the dominance test, which was criticized due to the fact that dominance do not have a substantial economic weight and it did not allow to intervene in case of restrictive effects resulting from the removal of competitive constraint in a non-collusive oligopoly, to alleviates the gap identified by the Commission. The new test, the so-called SIEC, which is mostly recognized by scholars as a hybrid between the two previous tests, states that concentrations can be prohibited in the common market if they '*'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''*[106].

According to the 2004 Commission guidelines[107], horizontal concentrations may significantly impede competition in particular by creating or strengthening a dominant position: by eliminating important competitive constraints on one or more firms, thus increasing market power without resorting to coordinated behaviour, and by changing the nature of competition so that operators, previously unable to coordinate their commercial conduct, are now able to coordinate, thus increasing prices, reducing output, both the so-called coordinated effects [108].

Furthermore, a prospective analysis has a fundamental role, in which the antitrust authority, as it is pointed out by the horizontal merger guidelines, has to carry out an *ex-ante* assessment, on the impact on the structural changes of the market provoked by the concentration, by comparing the conditions that would result from the merger with what would happen without the merger itself[109] taking into account the status quo ante of firms. The commission assessment entails the definition of the relevant product and geographic market. Secondly, antitrust authorities have to carry out a prognostic assessment including structural indices of possible anticompetitive effects and countervailing factors. Such indexes are market shares and concentration threshold, anti-competitive effects in relevant markets in the absence of countervailing factors, the likelihood that buyer power would act as a countervailing factor to an increase in market power resulting

[103] Section 7, Clayton Act, 15 U.S.C para 18, 1914
[104] Competition policy roundtables, *The standard for merger review, with a particular emphasis on country experience with the change of merger review standard from dominance test to the SLC/SIEC test*, DAF/COMP (2009)21
[105] Specifically in Article 4, para.2, and para.3
[106] Article 2 para.3 of the EU Merger Regulation
[107] Guidelines on the assessment of horizontal mergers under the Council regulation on the control of concentrations between undertakings, Official Journal C 031, 05/02/2004 P. 0005-0018
[108] Title IV Possible Anti-Competitive Effects of Horizontal Mergers para.22 (a) and (b)
[109] Horizontal Merger Guidelines, para.9

from the merger, and that efficiencies would have harmful effects on competition and conditions for a failing firm defence.

For market shares and degree of concentration, according to well-established law, very high market shares, at least 50%, may give rise to evidence of a dominant market position. However, smaller competitors can act as a sufficient constraining influence through their incentives to increase production. When there is a lower market share than 50% it may raise competitive concerns in view of other factors such as strength and presence of capacity constraints, barriers to entry and number of competitors. In conclusion, for a market share of less than 25%, there is a presumption of inability to impede competition in a market. Moreover, these indices also include the Herfindahl-Hirschman Index (HHI) which is defined as the sum of the squares of all players' market shares. The different thresholds provided are for HHI below 1000 and between 1000 and 2000, with a delta HHI below 250, or HHI above 2000 and delta HHI below 150 competition concerns are unlikely, except for certain special circumstances, which happen when a merger involves a potential or recent entrant with a small market share, one or more merging parties are important innovators, there are significant cross-shareholdings among companies, one of the firms is a maverick[110], indications of past or ongoing coordination, or facilitating practices are present and ultimately when one of the parties has a pre-merger market share of 50% or more.

For possible anti-competitive effects of horizontal mergers, there are two ways in which anticompetitive concerns may arise from concentrations: non-coordinated effects and coordinated effects, previously defined. For the first, they are raised by creating or strengthening the dominant position of a single firm, one which, typically, would have an appreciably larger market share than the next competitor post-merger and by restricting competition in an oligopolistic market, through the elimination of important competitive constraints that the merging parties previously exerted upon each other, and a reduction of competitive pressure on remaining competitors. Furthermore, a number of different factors could influence non-coordinated effects, such as large market share, merging firms as close competitors or limited switching suppliers. While for coordinated effects, in the assessment of their likelihood the Commission and NCAs have to take into account all relevant information on the characteristics of the markets such as structural features and past behaviour of firms.

While the factors that may counterbalance the merging firms' market power effects, could be buyer power, entry of new competitors and efficiencies. The first is defined as the bargaining strength that the buyer has vis-à-vis the seller in commercial negotiations due to its commercial significance to the seller, and ability to switch to alternative suppliers. When it is easy to enter a market, it must be considered for the assessment of

[110] Defined as those firms that may exert a disproportional competitive effect in markets where they are present by J. Bromfield and M. Olczak, *The role of the maverick firm concept in European Commission merger decisions*, Journal of competition law and economics, volume 14, Issue 2, June 2018

a sufficient competitive constraint on the merging parties, which is analyzed by taking into consideration the likelihood of entry, timelessness, and sufficiency.

Whereas with respect to efficiencies, they could have counteracted the possible negative effects that mergers might have on competition. Mergers' possible efficiency gains are lower prices, improved products or services, economies of scale and many others.

Ultimately the assessment is based on the condition of a failing firm defence, which is a firm that, in the absence of the merger, would not be able to survive in the industry. The commission should consider two different criteria, the first one is the fact that the company could be forced out of the market due to financial difficulties and that there would not be another best available alternative.

2.2. Effect of Concentration on the Environment

Environmental considerations are less applied in the concentration's regime than in any other area of EU competition law[111]. Nevertheless, concentrations such as mergers have a powerful impact on the overall economy and during the last 20 years, there was an upward trend in the number of concentrations in the environmental industry[112] or for firms driven by an environmental rationale. The environmental performance of a firm was and still is seen as a financial enhancing value for shareholders, in particular when firms fulfil their social responsibilities, mostly with cross-border mergers that had a significant increase in wealth to their shareholders[113], and from recent studies[114] consumers have preferences for green products or services. However, the impact of mergers on the environment and on sustainable development is still widely debated. In the competition policy brief published in September 2021, the Commission pointed out different reforms to implement on concentrations in order to adapt them to a new final scope oriented toward an environmentally sustainable economy. On one side considerations regarding the environment could incur in a competition assessment when they could be important to define the theory of harm[115]. For instance, one of them is the increase in the buyer power, which in case law was analyzed in *the Aurubis/ Metallo*[116] acquisition, in which the Commission assessed whether this process would have granted Metallo Group's buyer power to lower the price at which cooper scrap was purchased. Nonetheless, the main focus is on the so-called ''green killer acquisition'', which has been profoundly recognized and prevented by the European

[111] Suzanne Kingston, *Greening EU Competition Law and Policy,* Cambridge University Press, 2012, pag.328
[112] As it is stated in the OECD Trade and Environment Working Paper No.2005-04, Environmental Goods: A Comparison of the APEC and OECD Lists: The environmental industry consists of activities that measure, prevent, limit, minimize or correct environmental damages
[113] K. Dandapani, A.M Hibbert, E.R. Lawrence, *The shareholder's response to a firm's first international acquisition, Journal of Bnaking and Finance*, Volume 18, 2020
[114] Independent studies commissioned by SmartestEnergy, which is a next generation energy company, in which they found that 4 out of 5 people prefer to buy from sustainable sellers
[115] A theory of harm in competition law explains why specific conduct that causes harm to competition should be prohibited
[116] Case M.9409, Commission decision of 4.5.2020 declaring a concentration to be compatible with the internal market and the functioning of the EEA Agreement

Commission[117]. They are situations in which firms with high market share acquire mostly start-ups or nascent competitors, reducing green innovation on products in the context of sustainability, this is due to the fact that green innovations are principally undertaken by small firms rather than large firms that are already known in the market. This is also correlated to the development of a ''kill zone'', an industry in which several killer acquisitions have been developed and start-ups might be deterred from investing in the first place. On the other side, there are many empirical studies on old mergers that have demonstrated the possibility of concentrations reaching several benefits on the environmental level but at the same time led to anti-competitive effects. In these cases, such as when both firms have complementary technologies that could provide significant green innovation in the future, but the concentration would lead to an overall increase in the market price, there should be an assessment of the efficiencies.[118]
As it was stated in the previous paragraph, efficiencies must either benefit consumers or outweigh the negative effects that may arise. The Commission, during the last years, has started to look at efficiencies as a focal point in the assessment of concentrations, in particular, this was stated as one of the innovations of the 2004 merger regulation[119].

To summarize, concentrations could also be seen by firms and antitrust authorities as an incentive to look forward to environmental objectives, as it was provided by a recent study[120].

Companies through concentrations can achieve better environmental performance since they are able to optimize the allocation of resources, increase their profitability and lower environmental costs, which refers to costs correlated with the current or potential deterioration of natural assets due to economic activities[121].

Returning to the EU merger regulation currently does not define any regulation on environmental sustainability, nevertheless, under the Recital 23 of the EU merger regulation, it is stated that there is a necessity to establish if the given concentration is compatible with the term of the common market and during this evaluation the Commission should refer to the fundamental objectives provided in Article 2 of the TEU[122]. In this article, there is a clear reference to the environment and sustainable development, allowing for further consideration of it in the EU merger control. Furthermore, as was stated by Dr Suzanne Kingston in the Greening EU Competition Law and Policy, Article 21 para.4 of the merger regulation

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[117] See The Guidance on Article 22 of the EU Merger Regulation published in March 2021 and previously analyzed in paragraph 2.1.1
[118] DAF/ COMP (2021)4 on Environmental Considerations in Competition Enforcement, December 2021, pag.37
[119] This refers to the Merger Regulation, recital 23, in which it is stated that the Commission had to take into account any ''substantiated and likely efficiencies put forward by the undertakings concerned''
[120] The study '' *Positive effects after M&A* '' was conducted by the Mergers and Acquisitions (M&A) Research Centre of the London Cass Business school which has analyzed the effects of the mergers and acquisitions of the environmental performance of businesses.
[121] Glossary of Environment Statistics, Studies in Methods, Series F, No.67, United Nations, New York, 1997
[122] In this article itis stated that:' […] to promote throughout the Community a harmonious, balanced and sustainable development of economic activities […] a high level of protection and improvement of the quality of the environment […]'' https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A12002E002

provides that the member states are able to take ‘’*appropriate measures to protect legitimate interests other than those taken into consideration by this regulation and compatible with the general principles and other provisions of Community law’’*, specifically in the article it is stated with respect to public security, the plurality of media and prudential rules and environmental reasons could fall in the first category. Several researches explore climate change as a security issue[123] for nations and individuals, considering for example that coral bleaching will reduce the GDP of many Pacific islands by 40-50%[124].

One of the most important rulings, which the European Commission underlined, however, did not base its final decision on the importance of environmental factors in mergers, is the Bayer/Monsanto case[125], which will be discussed in the following paragraph.

2.3. Bayer/Monsanto Case: Different Opinions and Final Decision by the EU Commission

After the international financial crisis in 2007-2008, due to the fact that the agricultural sector was more ‘’resilient’’ than any other sector[126] to the global financial crisis, investors started to invest in agricultural commodities in order to diversify their financial portfolio, hedging against risks in other financial markets. This flow led to an increase in the overall level of prices of agricultural commodities, such as wheat and soy, and increase volatility in the market. Nonetheless, in 2013 there were major drawbacks in the agro-business when commodity prices began to fall, this resulted in a new wave of activist investors. The continuous pressures from financial investors to cut the firms’ costs and reallocate their resources, based on the fact that agribusinesses had excessive borrowing and weak economic performances, resulted in an upheaval of this sector with the beginning of the mega-mergers.

The first game-changer merger, valued at about 130 billion dollars, started in 2015, when Dow and DuPont, two of the oldest US chemical firms announced their intention to merge, known as a ‘’merger of equals’’ for the reason that it combined two firms which have the same size. The rush to merge increased when ChemChina announced the purchase of Syngenta, a giant Swiss agrochemical firm in pesticides and fertilizers, for 43 billion dollars. This became the biggest Chinese foreign takeover.

At that moment, the remaining firms in the agricultural market, two of them Monsanto and Bayer, were under pressure to search for merging agreements. Until Bayer, a German chemical and pharmaceutical company, in September 2016 announced its intention to acquire for 66 billion dollars Monsanto, an American corporation that was a leading producer of agricultural and biochemical products, especially in genetically engineered seeds and that in the previous years' acquired Climate Crop, a digital farming’s leading software platform. This deal was conceived firstly to create the world’s largest integrated pesticides,

[123] Jon Barnett, *Security and climate change*, Global Environmental Change, Volume 13, Issue 1, 2003, Pages 7-17, https://doi.org/10.1016/S0959-3780(02)00080-8.

[124] World Development Report 2000-2001, Oxford Press University, September 2000, pag.7

[125] Case M.8084

[126] https://www.oecd.org/newsroom/agriculturemoreresilienttoglobalcrisisthanothersectorssaysoecdandfao.htm

seeds, traits, and digital agriculture company and secondly as a possibility for farmers to improve sourcing and increase convenience to higher yield, better environmental protection, and sustainability[127] in order to enable farmers to produce more with less. However, as we are going to analyze in the following paragraphs, this deal was highly criticized due to its potential restriction of competition, indeed it was assessed by European Commission, and the harm to the environment, in particular, due to a substantial decrease in farmer seed choice which would force them to completely rely on genetically modified organisms, with a correlated decrease in the quality of them and an increase in the chemical-heavy practices that could threaten the bees and other pollinators which are critical not only for the environment but also the food security.

2.3.1 Assessment of the Deal

The Commission, after it received a notification on the 30th of June 2017 of the proposed concentration pursuant to Article 4 of the merger regulation in which it was presented the acquisition from Bayer of Monsanto, started an in-depth investigation in order to analyze the competition concerns that were aroused, taking into consideration also the previous decisions on Dow/DuPont and ChemChina/Syngenta mergers[128]. In the first phase of the investigation, conducted by reaching out through eQuestionnaires, telephone calls and written requests to several market participants that could be affected by this merger there were several doubts about the competitive effects of the transaction mainly for three different market divisions: crop protection, seeds, and environmental science. Furthermore, on the 22nd of August 2017, the Commission found that the transaction could be seriously not compatible with the internal market and the EEA agreement. Consequently, the Commission adopted the decision to initiate proceedings pursuant to Article 6 para 1(c) of the merger regulation[129]. During the second phase of the investigation, the Commission requested further information the notifying parties, competitors, customers of the parties and stakeholders, in addition during the same period the Commission also held several technical meetings with the parties. The legal basis for the decision was provided by Article 2 para. 3 of the merger regulation[130] and by the Recital 25 of the preamble to the merger regulation in which it is underlined that Article 2 para.1 of the Merger Regulation is meant to comprehend the appraisal of the effects of concentrations in oligopolistic markets and in particular in those that may significantly impede competition through the removal of decisive competitive constraint and through the decrease of the pressure on the remaining competitors. Additionally, also the

[127] As it was stated by Liam Cordon, member of the Board of Management of Bayer AG and head of the Crop Science Division on September 14, 2016

[128] Commission Decision in Case M.7932 – Dow/DuPont (2017) and Commission Decision in Case M.7962 – ChemChina/Syngenta (2017)

[129]In Article 6 para1. (c) of EU Merger Regulation it is stated that: ‘’*Without prejudice to paragraph 2, where the Commission finds that the concentration notified falls within the scope of this Regulation and raises serious doubts as to its compatibility with the common market, it shall decide to initiate proceedings. Without prejudice to Article 9, such proceedings shall be closed by means of a decision as provided for in Article 8(1) to (4), unless the undertakings concerned have demonstrated to the satisfaction of the Commission that they have abandoned the concentration*’’.

[130] In which it is stated that: ‘’ “*[a] concentration which would significantly impede effective competition, in the* [internal] *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* [internal] *market.*”

horizontal merger guidelines and non-horizontal merger guidelines provided guidance for the Commission's assessment.

The Commission focused on the relationship between the parties, which was limited to five different products such as vegetable seeds, specifical seeds for oilseed rape and seed for cotton, traits for broadacre crops and non-selective herbicides, and on the possible effects of the transaction on potential competition, innovation competition, industry structure in particular in seeds and traits where Monsanto had already a leading if the not dominant position and at the end on the horizontal and conglomerate effects due to the combination of leading seeds and a leading crop protection player[131].

The Commission concluded that, following this merger, there would have been a reduction of fundamental competition relationship in vegetable seeds due to the fact that this particular market segment was characterized only by few alternatives and Monsanto and Bayer had a high combined market share. The transaction in that area would eliminate important competitive constraint and result in non-coordinated effects on competition, for example in the carrot seeds and hot pepper seeds industry[132]. For traits the Commission found that the parties are close competitors, and the transaction would lead to a loss of important innovation competition in several important innovation spaces[133]. As provided by paragraph 28 of the horizontal merger guidelines, the higher the substitutability between the parties' products, the more likely it is that the parties will reduce innovation post-transaction. While in para. 1175 (i), moreover, the Commission noticed that for this innovation space where the parties had a significant combined share, the Big5[134] had a range of shares between 100 and 80 per cent, providing that no other company would be able to provide significant innovation in that sector. Furthermore, there were specific overlaps in the genetically modified and non-genetically modified market, this in particular would have enhanced Monsanto's worldwide dominance in that area[135]. While for pesticides, also defined in the Eu Commission report as crop protection, firstly there would have been the elimination of competition in non-selective herbicides for agricultural and non-agricultural uses between Bayer's glufosinate and Monsanto's glyphosate[136], secondly the reduction on innovation in the herbicides system, because both firms were the only capable to discover

[131] Commission Decision of 21.3.2018, declaring a concentration to be compatible with the internal market and the EEA agreement, (Case M.8084 – Bayer/Monsanto), Section VII, Overview of the relationships between the parties and Areas of Investigation, pag.47

[132] Ibidem, Section IX, Broad Acre Crop Seeds, 22, Conclusion para. 679, pag.303

[133] Ibidem, Section X, Broad Acre Crop Traits, 1.7.4.6 Conclusion (1.7.5), pag.413

[134] The Big5 represents five different companies namely Bayer, Monsanto, ChemChina/Syngenta, DowDuPont and BASF

[135] EC's press release notes 148 and EC Press Release, Mergers: Commission opens in-depth investigation into proposed acquisition of Monsanto by Bayer, August 2017, http://europa.eu/rapid/press- release_IP-17-2762_en.htm.

[136] Glufosinate and glyphosate are both of the most sold non-selective herbicide

new ingredients and formulations in order to address the weed resistance[137]. Lastly, with respect to the digitally enabled agronomic prescriptions, the Commission announced that for the majority of competitors the transaction would have negative consequences based on the increase in prices, narrower choices and less innovation[138]. For these proposed reasons the Commission believed that the transaction would have been likely to restrict competition in the market, especially for broadacre crops in the EEA[139], due to the fact that Bayern and Monsanto are potential competitors in the market for the provision of this product.[140]

2.3.2 General Concern about the Deal

This deal, as it was previously stated in this thesis, was severely criticized. In this paragraph, we are going to analyze two similar positions from two different entities: the UCL legal study, conducted by Dr Ioannis Lianos from University College London and the political position of the EU Parliament group Greens/EFA.

Starting from the UCL research, it had identified five main reasons to block this acquisition. The first concerned the high market concentration, indeed with the approval of the merger only three companies would have owned and sold about 65 percent of the world's pesticides and 60 percent of the patented seeds. The second reason was related to the entrenched market power in the plant intellectual property portfolio, in particular to the effects on the incentives for market entrants. Furthermore, it was increased by the significant links between firms in the cross-licensing agreements and joint ventures. The third and fourth motives were both focused on the consequences on farmers, in particular on the substantial increase in the price and reduction of the variety of seeds available, and in the digital farming servers, which would have made farmers dependent on the companies' input and reduce their overall welfare. The last reason was based on the reduction of competition and innovation in the sector that, as we have analyzed in the previous paragraph, with the approval of the merger would be disrupted due to both high barriers to entry, such as the presence of both Bayer and Monsanto on multiple segments of the value chain.[141]

From a political point of view, the Greens/EFA party sustained the fact that instead of letting already big corporations become bigger, the Commission should strengthen the currently impoverished position of

[137] Ibidem note 122, Section XI, Crop Protection, 5.5 Competitive assessment in microbial crop efficiency products: non-coordinated effects, pag. 658

[138] Questionnaire to Digital Agriculture Competitors (Q11), question 55; DowDuPont's comments on the Statement of Objections of the 15 January 2018, section II, pages 5-8 (ID10083); Oxfam's press release entitled "Fusion von Bayer und Monsanto: Big Player der digitalen Landwirtschaft", 12 February 2018, sent by e-mail to the Commission by Oxfam on 12 February 2018

[139] Ibidem note 122, Section XII, Digitally Enabled Agroeconomic Prescriptions, 4.3 Non-coordinated effects: Likely elimination of potential competition in digitally enabled prescription for fungicides for broad acre crops in the EEA, para. 2612, pag.701

[140] Ibidem, 4.3.1, pag.701

[141] Ioannis Lianos, *Merger Activity in the Factors of Production Segments of the Food Value Chain – A critical assessment of the Bayer/Monsanto merger*, CLES Policy Papers, UCL Faculty of Law, Centre for Law, Economics and Society, 2017

smaller firms with the CAP reform[142], which was the opportunity to support a transition from the chemical-dependent approach used by Monsanto towards genuinely sustainable farming and that this concentration of market power was a threat to the already existing restricted competitive structure in the European agricultural commodity market, as it was stated by in the open letter sent by Molly Scott Cato, a member of the Economics and Agriculture Committees in the European Parliament and representative for the Greens/EFA to the European commissioner for competition Margrethe Vestager. Besides, in a study conducted in 2014[143], the group had already criticized the perception of a diversified EU seed market, verifying that 95 per cent of the European vegetable seeds were controlled by five large scale enterprises and that the selling of Monsanto's seeds at that time controlled already around 24 per cent of the market after the acquisition of Seminis in 2005.

2.3.3 Approval of the Purchase

The Commission cleared the acquisition on the 21st of March 2018 based on the merger regulation conditional to the divestiture of an extensive remedy package which addresses the parties' overlaps in pesticides, seeds, and digital agriculture[144]. Bayer proposed a set of commitments that, according to the Commission, fully address the previously mentioned competition issues.

Firstly, Bayer has committed to divesting its entire vegetable seed business, including its R&D organization, to a suitable purchaser currently not active in vegetable seeds, this has been found in BASF[145], one of the Big Six.[146] It would be able to replicate the competitive constraint previously exercised by both Bayer and Monsanto and ensure that the number of players in this field remained constant.[147]

Secondly, Bayer has committed to divest to BASF almost the entirety of its global broadacre seeds and trait business, including not only oilseed rape and cotton, where Bayer's activities overlap with Monsanto in Europe, but also soybean and wheat. In addition, it included Bayer's entire trait business such as its r&d on

[142] CAP Reform refers to the Common Agriculture Policy of 2014-2020, in which one of the pillar points was to enhance the competitiveness of EU agriculture by indicate several measures to facilitate producers' cooperation, such as support for setting up producers' groups, short supply chains and start-up aid for young farmers. Furthermore, in this policy it was stated that farmers should be focalized to the creation of a more sustainable EU agriculture by pursuing climate change mitigation and adaptation actions.
[143] Ivan Mammana, *Concentration of market power in the EU seed market*, study commissioned by the Greens/EFA group in the European Parliament, 2014
[144] European Commission (EC) Press Release, Mergers: Commission clears Bayer's acquisition of Monsanto, subject to conditions, Brussels, 21 March 2018, https://ec.europa.eu/commission/presscorner/detail/en/IP_18_2282
[145] BASF is a European society based in Ludwigshafen, Germany. BASF is an acronym for Badische Anilin-und Soda Fabrik. The company is active in different sectors such as chemicals, performance products, functional materials and solutions, agricultural solutions, and oil and gas. Furthermore, it is active in the industries taken into consideration in this case law, such as chemical and biological crop protection, seed treatment, nutrient supply and plant stress.
[146] Big Six refers to six big corporations in the food industry: Bayer, Monsanto, Syngenta, ChemChina, Dow and DuPont
[147] Decision on the implementation of the commitments – Purchaser approval, II Assessment of the proposals, II.1.2 Description of the proposed purchaser, pag.4

gm and non-gm traits. With this divestiture, there should be the removal of all the horizontal overlaps between the parties and ensure an unchanged number of global integrated traits players.[148]

For pesticides, the Commission approved Bayer's commitment to divest BASF glufosinate assets and three important lines of research for non-selective herbicides. This would have provided BASF with the mechanism to replicate competitive constraints previously exercised by both firms[149].

Lastly for digital agriculture, the Commission stated that Bayer has committed to license a copy to its entire global digital agriculture product portfolio and pipeline products to ensure continued competition in the European Economic Area to a BASF.[150]

2.3.4 Environmental Implications of the Merger

Even if the merger had a great impact from an environmental standpoint, and the EU institutions were completely aware of the environmental implications, the Commission on its decision was entirely focused on competition constraints, as it was stated by commissioner Vestager[151] rather than environmental consequences. The first European institution to raise concerns on this merger was the European Parliament in the resolution on the annual report on competition[152]. This concern was followed by the UCL Study that we have analysed, in which it is stated that the competition commissioner Vestager should have taken action and have broadened her investigation to include negative impacts on the climate and biodiversity.
Indeed, such a critical decision on the future of global food should have included the ecological and social costs, due to the fact that farmers may be less likely to choose a business model based on seed investment and non-agro-chemical pesticides if they are forced to follow the corporations. From an environmental standpoint, this could lead to a decrease in biodiversity and the capability of seeds and crops to resist and adapt to a change in the environment. Even though Bayer itself confirmed that one of the main reasons behind the acquisition of Monsanto lies in the pursuit of the benefit given to farmers as it was stated in their

[148] Ibidem
[149] Ibidem
[150] Ibidem

[151] In the document explaining the merger assessment to the petitioners she claimed "*Other concerns raised by the petitioners relate to European and national rules to protect food safety, consumers, the environment, and the climate. While these concerns are of great importance, they cannot form the basis of a merger assessment*". The same position has been confirmed in other documents relating the merger negotiation. http://ec.europa.eu/competition/mergers/cases/additional_data/m8084_4719_6.pdf.

[152] In which it stated that: ''deeply alarmed at the fact that if the Monsanto-Bayer merger is approved, three companies (ChemChina-Syngenta, Du Pont-Dow and Bayer-Monsanto) will own and sell up to 60 % of the world's patented seeds and 64 % of the world's pesticides and herbicides; points out that such a level of concentration will undoubtedly lead to price rises, will increase farmers' technological and economic dependence on a few global integrated one-stop shop platforms, will result in limited seed diversity and the re-direction of innovation activity away from the adoption of a production model which is respectful of the environment and biodiversity and, ultimately, to less innovation, as a result of reduced competition; asks the Commission, therefore, to give careful consideration to the fact that several mergers are taking place simultaneously in the sector, when looking at the level of concentration and the competitive effects of the merger on the various markets affected'', March 2018, https://www.europarl.europa.eu/doceo/document/A-8-2018-0049_EN.html?redirect

declarations[153] '' *These are expected to result in significant and lasting benefits for farmers: from improved sourcing and increased convenience to higher yield, better environmental protection and sustainability''*.
The critical view was shared also by the main and real player which suffer the consequences of this merger: farmers, who were sceptical of these promises[154]. Indeed, for instance in Italy, as was stated by Coldiretti[155], farmers' powers would have been reduced due to the power of agri-businesses to impose prices and selling conditions, the confederation declared *''few have the decision power for the majority''*.

With respect to the decision of the European Commission, in the decision text published on the 21st of March 2018, in particular in Section XIV regarding non-competition concerns, also third parties contend that the Commission should have assessed the harm to the environment.[156] From the Treaty on the Functioning of the European Union, the Commission had to take into consideration a plurality of objectives, such as human health, environment and consumer protection pursuant to Article 7, Article 9, Article 11 and 12 of the TFEU. Furthermore, by recital 23 of the merger regulation, the Commission should have conceived its assessment within the general framework of the achievement of the fundamental objectives referred to in the EU Treaties. In particular, the Commission understood the possible consequences of the reduction of competition caused by the mergers based on the objectives previously defined, mostly to ensure that a post-transaction innovation is preserved as a key for the emergence of more effective, healthier, safer, and more environmentally – friendly products[157].
To summarize, despite the European Commission judgement, the Bayer-Monsanto merger as it was approved, would have been likely to cause farmers an increase in prices, a reduction of the bargaining power of local farmers and the inability to switch to organic cultivation while for the environment. Furthermore, it would have resulted in an increase in the CO2 emission, exacerbating the poor environmental conditions that are the first reasons for land abandonment and landscape degradation[158] and a decrease in the level of biodiversity and seeds diversification due to the monoculture policies followed.

This merger was analyzed in order to assess firstly, the profound dichotomy between the restriction of competition and environmental consequences and secondly how the former could neglect major

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[153] Bayer Press Release, *Bayer and Monsanto create a Global Leader in Agriculture*, 14 September 2014, https://monsanto.com/news-releases/bayer-monsanto-create-global-leader-agriculture/

[154] M.E Stucke, A.P. Grunes, *An Updated Antitrust Review of the Bayer-Monsanto Merger*, The Konkurrenz Group, March 2018
[155] Coldiretti (National Confederation of Growers) is one of the largest associations representing and stewarding Italian Agriculture. Coldiretti press release, September 2016, https://www.coldiretti.it/economia/fusione-bayer-monsanto-lagricoltura-trema
[156] Ibidem note 138 para. 3007
[157] Ibidem para. 3011

[158] EEA Report, *Food in a Green Light: a system approach to sustainable food Report No.16/2017* https://www.eea.europa.eu/publications/food-in-a-green-light

responsibilities to the environment, despite the fact that the European Union was and is still a leader in the sustainable agriculture, thanks to its stringent legislation taking care of the landscape, biodiversity, and cultural heritage of seeds diversity and taking into consideration the treaties that give a different vision on the level of commitment of European institutions on this matter. It is possible to conclude that the remedies packaged proposed by the European Commission were a missing opportunity to find a common ground between the traditional economic considerations and the new arising horizons and fundamental problems that the future generations will face.

CHAPTER III

COOPERATION AGREEMENTS

3.1 Cooperation Agreements: Privileged Area of Intervention

As previously mentioned in this thesis, innovations in technology and behaviour can promote and encourage firms to engage in sustainable development while they keep competing with each other, therefore it could be seen as a driver of change. However, despite the common belief, research and technology could result in major costs of development, meaning that there are several competitive disadvantages for the first mover in the market, even if it is still true that this position permits to gain a significant sales advantage. It was found that the return on investments[159] for first movers was 4,24 percentage points lower than its follower in the industry[160]. Indeed, the firms, which later implement sustainable processes and mechanisms, can take advantage of the findings of the firms that firstly spend their resources on the project. In many cases cross-industry collaborations are fundamental for enhancing and reducing these aspects due to the fact that they enable to achieve economies of scale and scope and facilitate the entry into new markets by lowering the risk of a large research project, it even occurs for large companies, and the integration of complementary knowledge[161].

Nevertheless, under competition law, agreements between competitors may be prohibited and for this exact reason cooperation agreements[162], became a privileged area of intervention not only from a national level but also from a European standpoint. Competition law in these cases could be seen as an obstacle in order for the firm to achieve sustainability objectives. The doubts and discouragement regarding possible inconsistencies with competition law and conflicts of objectives with the antitrust authority made competition authorities realize that they should have ensured guidelines for firms in order to guarantee sustainability agreements. However, even if some agreements raise restrictions on competition, they could be exempted under Article 101 para. 3 of TFEU. For the exemption to apply, the agreement has to increase efficiency also with consumer participation. The problem relies on the fact that competition authorities only take into account efficiency gains measured in monetary terms and that affect the same market in which the restriction of

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[159] Return on investment is a financial ratio which measures the benefit that an investor will receive in contrast with the cost on the investment

[160] William Boulding and Markus Christen, *First-mover Disadvantage,* Harvard Business Review, October 2001, https://hbr.org/2001/10/first-mover-disadvantage

[161] Ard-Pieter de Man and Geert Duysters, *Collaboration, and innovation: a review of the effects of mergers, acquisitions and alliances on innovation,* Research sponsored by the Ministry of Economic Affairs of the Netherlands, January 2003

[162] Cooperation agreements could be horizontal or vertical. The former concerns an agreement between actual or potential competitors as well as between non-competitors, who are for example two companies that are active in the same product market but in different geographical markets without being potential competitors. This agreement can lead to substantial economic benefits, by sharing risks, making costs savings, increasing investments, pooling know-how, enhancing product quality and variety, and launching innovation faster. However, they can also rise competition concerns with respect to prices, output, innovation or the variety and quality of products. While vertical cooperation agreements take place between companies or undertakings operating at different level of the production or distribution chain.

competition occurred; however, in most sustainability agreements those gains are not provided, and the effects may occur in a different market[163]. So, the first step proposed by the European Commission was the policy brief, thanks to which the responses to the call for contributions underlined a need for clarification on how to pursue sustainability objectives.

Furthermore, on the 1st of March 2022, the European Commission has launched a public consultation on the draft revised the horizontal block exemption regulation (HBERs) and on the horizontal cooperation guidelines in order to clarify the assessment under Article 101 para.1 and 101 para.3 of TFEU, the latter will be analyzed afterwards. The Commission also took into consideration the national initiatives that have been implemented to assess the compatibility of sustainability initiatives with competition law, in particular, the first one was the Netherlands authority for consumers and market (ACM) guidelines proposal, followed by the Hellenic competition commission's sustainability sandbox proposal, and the English competition and market authority proposal with the latest recommended advice to the United Kingdom government, each of which will be assessed at the end of this chapter.

3.1.1 Article 101 TFEU and Block Exemption Regulation

Cooperation agreements are regulated under one of the pillars of EU competition: Article 101 of the TFEU, ex Article 81 TEC, which includes both horizontal and vertical agreements.
This article provides: '' *1. The following shall be prohibited as incompatible with the internal market: all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect trade between the Member States, and which have as their object or effect the prevention, restriction, or distortion of competition within the internal market, and in particular those which:*

(a) directly or indirectly fix purchase or selling prices or any other trading conditions;

(b) limit or control production, markets, technical development, or investment;

(c) share markets or sources of supply;

(d) apply dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;

(e) make the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts.''[164]

[163] Maha Zohrer and Anna Sofia Reumann, *Sustainability, and competition law: green light for sustainable cooperation agreements*, Schonherr publications, January 2022, https://www.schoenherr.eu/content/sustainability-and-competition-law-green-light-for-sustainable-cooperation-agreements/
[164] Consolidated version of the Treaty on the Functioning of the European Union – Part three: Union Policies and Internal actions – Title VII: Common rules on competition, taxation and approximation of laws – Chapter 1: Rules on competition – Section 1: Rules applying to undertakings – Article 101 (ex-Article 81 TEC), https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX%3A12008E101%3AEN%3AHTML

The article is structured in two different parts, the first one assessed whether an agreement could lead to an anti-competitive object or to actual and potential anti-competitive effects. While the second part, which is effective only when the agreement actually restricts competition, is used to determine the pro-competitive benefits produced by the agreement and whether they outweigh the anticompetitive effects[165].

One of the main purposes of this thesis is to underline the use of Article 101 TFEU to promote sustainable business practices and their limits. On this notice, the main type of environmental protection instruments that could be engaged under Article 101 para.1 are termed voluntary environmental agreements, divided into self-regulation, those where the agreement put in place by undertakings on a voluntary basis, and co-regulation, where the legislator establishes the key elements of the regulation. The environmental agreements were included in the 2001 horizontal cooperation guidelines, which followed the definition of the Commission communication on environmental agreements. In this communication was stated that those agreements were considered environmental when *''the target or the measures agreed need to be directly linked to the reduction of a pollutant or a type of waste identified as such in relevant regulation''* [166]. Nevertheless, the chapter in which this definition was included and the definition itself were removed by DG Competition from the amended version of the 2010 horizontal cooperation guidelines. This document represents more the Commission's inclination toward a consumer welfare objective, as previously analyzed in this thesis.

Any agreement that restricts competition falls directly within Article 101 para.1 TFEU, however if the agreements cause environmental damage without any competitive harm, they are not considered under Article 101 para.1 TFEU. In the 2001 horizontal guidelines the environmental agreements which almost always would fall under Article 101 para. 1 are those '*'where the cooperation does not truly concern environmental objectives but serves as a tool to engage in a disguised cartel or if the cooperation is used as a means amongst other parts of a broader restrictive agreement which aim at excluding actual or potential competitors*.'' [167]. Instead, the environmental agreements that would likely fall within Article 101 TFEU are the one where they are made between parties with substantial market share appreciably restricting the parties' ability to '' *devise the characteristics of their products or the way in which they produce them or substantially affect the output of third parties, as suppliers or as purchasers*.''.[168]. The examples made by the Commission in this case were: the agreement to create a private eco-label, the environmentally motivated restrictions that might include specialization or production agreements, the allocation of pollution quotas[169]

[165] European Economic & Marketing Consultants – EE&MC GmbH, Competition Competence Report on Article 101 TFEU, pag.2
[166] *Guidelines on the Applicability of Article 81 of the EC Treaty to Horizontal Cooperation Agreements*, OJ 2001 C 3/2 (the 2001 Horizontal Cooperation Guidelines), para.180
[167] Ibidem note 168 para.188
[168] Ibidem note 168 para.189
[169] Ibidem para.190

or a single undertaking as an exclusive provider of collection or recycling services for their products[170]. While for the restrictive effects, as it is stated in the 2010 horizontal cooperation guidelines para. 24, the agreements have ‘*’an actual or likely appreciable adverse impact on at least one of the parameters of competition on the market, such as price, output, product quality, product variety or innovation.*’’. Additionally, the Commission might also assess any individual ancillary restrains in the agreement in order to see whether they are ‘*’directly related and necessary to the implementation of a main non-restrictive transaction and proportionate to it.*’’[171].

However certain constraints may not be caught by Article 101 para.1 TFEU when the restraint is objectively necessary for the existence of an agreement of that type or that nature[172]. There are many cases in which there is a legitimacy balance between non-competitive objectives against the potentially restrictive effects stated in Article 101 para.1 TFEU. Indeed, many commentators asked whether the same reasoning could be applied to environmental agreements. A majority of those commentators believed that the ancillary restraint principle could not be applied for environmental justifications due to its application on a narrow area and the need to divide them from the exercise of political discretion[173]. However, where the restriction of competition is necessary in order to get the objective of the environmental agreements such that the agreement would not be accepted, as happened in the *Albany* case[174], constitutes a situation in which it is possible to read Article 101 para. 1 in favour of environmental objectives. Instead, the Commission’s vertical Guidelines specified that ‘*’for most vertical restraints, competition concerns, exemption and the disapplication of the Block Exemption can only arise if there is insufficient inter-brand competition*’’[175]. While environmental vertical agreements in which there are any hardcore restrictions, such as price-fixing or allocating markets, will always fall within the scope of the article as long as there is an appreciable effect on inter-state trade and on the competition[176].

The same article also provides:

‘’3. The provisions of paragraph 1 may, however, be declared inapplicable in the case of:

- any agreement or category of agreements between undertakings,

- any decision or category of decisions by associations of undertakings,

- any concerted practice or category of concerted practices, which contributes to improving the production or distribution of goods or to promoting technical or economic progress, while allowing consumers a fair share of the resulting benefit, and which does not:

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170 Ibidem para.191
171 Article 101(3) Guidelines, para.29
172 Suzanne Kingston, *Greening EU Competition Law and Policy*, Cambridge University Press, October 2011, pag.231
173 Ibidem note 159 pag.236
174 Case C-67/96, Albany International BV v Stichting Bedrijfspensioenfonds Textielindustrie, ECLI: ECLI:EU:C:1999:430, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A61996CJ0067, in which collective bargaining between organizations representing employers and employees falls outside the scope of article 101 TFEU.
175 Guidelines on Vertical Restraints OJ 2000 C291/1, para.6
176 Ibidem note 175 pag.250

(a) impose on the undertakings concerned restrictions which are not indispensable to the attainment of these objectives;

(b) afford such undertakings the possibility of eliminating competition in respect of a substantial part of the products in question.''[177]

The guidelines on the application of Article 101 para. 3 TFEU determined that this part acknowledges that certain agreements, even if they restrict competition, may generate objective economic benefits that may outweigh the negative effects of the restriction of competition and exempts those agreements from these prohibitions. Furthermore, it can be applied to individual cases or to categories of agreements and concerted practices through block exemption regulation. There are four main conditions by which the agreements could be exempted and with respect to environmental agreements, there is not any explicit block exemption; however, it is possible that many environmental agreements could fall within the scope of block exemptions.

For the first condition, it has to be assessed whether the environmental benefits lie in the improvement of production or distribution of goods or whether they promote technical and economic progress, meaning that the agreement leads to efficiency gains. In several cases, the Commission provided the idea that any non-economic objective could not be a part of efficiency gains, because in that case, the benefits are not quantifiable and actually realized in the future. Nevertheless, its view changed through several case laws, such as *Bayer/BP Chemicals*[178] or *Stichting Baksteen*[179]. In these mentioned cases, non-economic factors were considered partially fundamental in assessing the first condition of Article 101 para. 3 TFEU. Moreover, in the XXVth Report on Competition Policy the Commission stated: '' *When the Commission examines individual cases, it weighs up the restrictions of competition arising out of an agreement against the environmental objectives of the agreement and applies the principle of proportionality in accordance with Article [81(3)]. In particular, improving the environment is regarded as a factor which contributes to improving production or distribution or to promoting economic or technical progress.*"[180].

The second condition refers to the fact that efficiency gains should allow consumers[181] a fair share of the resulting benefits. For the environmental agreements, it could be a problematic interpretation due to the high cost of implementing a process today to prevent the resources to be eliminated in the future, in this view, the actual benefits would be prolonged. However, an example of the second condition is the *Philips/Osram* case in which the Commission stated: '*'the use of cleaner facilities will result in less air pollution, and consequently in direct and indirect benefits for consumers from reduced negative externalities*.''[182].

[177] Ibidem note 167
[178] Bayer/BP Chemicals OJ [1976] L 30/13
[179] Stichting Baksteen OJ [1994] L 131/15
[180] XXVth Report on Competition Policy, para.83-85
[181] With the term ''consumers'' they refer to all direct or indirect users of the products covered by the agreement
[182] Philips/Osram OJ L 378/37, point 27

Consequently, in the third condition, it is stated that both the agreement and the restrictions imposed by it should be indispensable for the attainment of the objectives of the agreement.

Lastly, the fourth condition provided that a sufficient part of residual competition should be maintained in the market and the ultimate aim of this article is to protect the competitive process[183]. However, several environmental agreements, as it was specified in the previous part of this thesis, need the cooperation of most or even the entire market in order to shift production and stimulate innovation.

It is possible to underline the flexibility of Article 101 para. 3 TFEU also looking at the CECED[184], a rare case, in which the Commission considered an agreement between the members of an association regarding domestic washing machines that altogether accounted for 95% of the European Union sales. Where the parties agreed to cease the production and importation of the inefficient machines into the European Union. However, the Commission, due to possible competition concerns arising from the reduction of the variety of products and increase in the production costs, had to further consider the possible environmental issues under Article 101 para. 3 in particular by assessing each of the four conditions. Despite the positive reply of the Commission, the stakeholders responded to these consultations by showing that the CECED had not provided adequate encouragement for the businesses to engage in sustainability initiatives. At that time even the commissioner responsible for competition Dr Mario Monti stated that the environmental concerns were in no way contradictory to competition policy and were actually enshrined in the treaty for the benefit of current and future generations[185].

3.1.2. The New Draft Revised Horizontal Guidelines

These guidelines provide not only assistance for undertakings in order to be compliant with the rules of the European competition authority and ensure the protection of competition, but they are also aimed at facilitating cooperation in economically desirable ways, for example, to promote the green transition[186]. The guidelines include the principles to assess horizontal cooperation agreements, coordinated practices under Article 101 TFEU, an analysis framework regarding different types of horizontal cooperation agreements such as research and development agreements, production, purchasing, commercialization agreements, information exchange, standardizations agreements and standard terms and lastly, the guidance on the common horizontal agreements pursuing sustainability objectives. Sustainability agreements in this draft refer to any type of horizontal cooperation agreement that pursues sustainability objectives without depending on the form of cooperation. When those agreements concern different types of cooperation

[183] Article 101(3) Guidelines, point 105
[184] Case IV.F.1/36.718. CECED (The Conseil Europèen de la Construction d'Appareils Domestiques is an association under Belgian law, it comprises manufacturers of domestic appliances and national trade associations.)
[185] European Commission Press Release, Commission approves an agreement to improve energy efficiency of washing machines, IP/00/148, February 2000, https://ec.europa.eu/commission/presscorner/detail/en/IP_00_148
[186] Draft on Communication from the Commission- Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements

previously stated, they will be assessed by taking into consideration the principles that govern those specific agreements and the specific sustainability objective followed[187]. As was mentioned in this chapter sustainability agreements raise competition concerns under Article 101 para. 1 only if their effect solely restricts competition in the market. However, those agreements could be justified under Article 101 para. 3 if the four conditions explained in the previous paragraph are satisfied and not for the only reason that they pursue environmental objectives.

This guideline firstly assesses sustainability agreements that could fall under Article 101 para. 1, in particular, it makes reference to sustainability standardization agreements, in which competitors comply with specific sustainability standards[188]. In these agreements, it is required to be compliant with rules or specific characteristics that products or processes would need to have. They are characterized by four main features: the adoption of a green label or logo in order to oblige producers to be compliant with the indicated standards, the increase in the distribution size or price in order to compensate for the increase in costs, the irrelevance of compatibility between products for sustainability standards and ultimately, the possibility to freely decided how to reach the goal. The main competition concerns under these agreements are divided on whether they restrict competition through price coordination, limitation of alternatives and discrimination against certain competitors. The agreements which do not pursue sustainable objectives but just pretend it in order to increase prices, qualify as a restriction of competition by object. While those which are not considered to restrict competition by object are unlikely to produce a negative effect on competition. Indeed, they will fall outside Article 101 para. 1 if five different conditions are met:

''First, the procedure for developing the sustainability standard is transparent and all interested competitors can participate in the process leading to the selection of the standard.

Second, the sustainability standard should not impose on undertakings that do not wish to participate in the standard an obligation - either directly or indirectly - to comply with the standard

Third, participating undertakings should remain free to adopt for themselves a higher sustainability standard than the one agreed with the other parties to the agreement (e.g. they may decide to use more sustainable ingredients in their final product than the standard may require).

Fourth, the parties to the sustainability standard should not exchange commercially sensitive information that is not necessary for the development, the adoption or the modification of the standard. ''[189].

[187] Ibidem note 189 para.547, pag. 132
[188] Ibidem note 189, pag. 134 para. 571
[189] Ibidem note 189 pag. 136

It is also important to underline that the failure to comply with one or more conditions does not immediately fall agreements under Article 101 para. 1; however, it would be the need to assess to what extent these agreements would restrict competition.

This draft further explains in detail the four conditions that justified restriction on competition under Article 101 para. 3. Starting with the first condition regarding efficiency gains it explains how the efficiencies that are provided with these agreements, such as less pollution or the avoidance of supply chain disruption, cannot be taken for granted but they have to be objective, concrete and verifiable. An example which is made is if there is a reduction in the water's contamination then there would be the need to provide the size of the benefit[190].

Consequently, for the second condition, it stated that the overall effect, taking into account the harmful and beneficial consequences on consumers in the relevant market, has to be at least neutral. This means that sustainability effects have to be directly correlated to the customers that are involved in those agreements[191]. Furthermore, depending on the circumstances there would be the need to provide an assessment on whether the harm is compensated or not by the potential benefit raised.

The draft divides the benefits into four different categories: individual use-value benefits, individual non-use value benefits, collective benefits, and lastly any or all types of benefits. The former results from the direct use of the product and directly improve the consumers' experience with the specified product[192], for instance, the use of expensive and durable packaging that enables to store food for a longer time could outweigh the increase in prices. The second refers to the indirect benefits related to consumers' appreciation of sustainable products or processes[193], indeed, those consumers are ready to pay higher prices for these products because they perceived the benefits on others. This could be evaluated with surveys and, in particular, in economic terms with consumer surplus; however, preferences of consumers and their actual behaviour on the market could be different, therefore, those surveys need to be based on an appropriate context and has to take into account social norms or habits about consumers' behaviour[194]. The term ''collective benefits'' refers to the latter benefits analyzed but limited to voluntary choices of individual consumers[195], meaning that they do not consider the individual appreciation of consumers of the product, and they accrue when consumers are also a large part of beneficiaries of the benefits. In particular in the draft, they proposed four different conditions which parties should consider for collective benefits: they need to describe benefits and provide evidence of them, they have to declare the beneficiaries, assess and

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190 Ibidem note 189, pag. 138 para. 579
191 Ibidem note 189, pag. 140, para. 588
192 Ibidem note 189, pag. 140 para. 590
193 Ibidem note 189, pag. 141 para. 594
194 Ibidem note 194
195 Ibidem note 189, pag. 142 para. 601

demonstrate that consumers are included in the beneficiaries or constitute a large part of them and ultimately that collective benefits that occur outside the relevant market can increase also the benefit of the consumers in the relevant market[196]. Finally, for any or all types of benefits, parties could provide evidence to support any singular type of consumer benefits, altogether or a combination of them.

Returning to the conditions, the third condition is satisfied when the parties are able to demonstrate that these agreements, as they are presented, are indispensable in order to achieve sustainability benefits and represents the only way in which they could occur. Furthermore, it is stated that when there is demand for sustainable products, then cooperation agreements may not be necessary for creating sustainability benefits, but they could be necessary for reaching sustainability in a more effective and efficient way, for example, to avoid the problem of free-riding, to reach economies of scale or even when consumers do not acknowledge the future benefits that these products could provide.

The last condition points out the need to ensure some degree of residual competition in the market affected by the agreements, despite the benefits that they provide. This condition is satisfied even if competition remains only on one parameter of the market such as prices or quality and even if there is an elimination of competition only for a short period of time in order to introduce a new sustainable product [197].

3.2 ACM Guidelines Proposal: Its Unique View

The need for clarification in the implementation of environmental agreements between undertakings compatible with competition constraints was partially satisfied by several national initiatives, like the Dutch, Greek, French and English Guidelines. The former was the first to be published and it started when the Netherlands Authority for Consumers and Market (ACM) conducted a public consultation from July to October 2020 on the application of European competition rules to agreements promoting sustainability, intended to replace the Vision document on competition and sustainability published in 2014[198].

The public consultation was further followed by the study ''Today's Chicken'' to offer more sustainable and animal-friendly chicken meat. Moreover, the final version of the Guidelines on misleading sustainability claims was published by ACM on the 28th of January 2021. This document stated that: '*'The government is committed to making the transition to a more sustainable economy, which is reflected by, among other actions, various climate agreements and by signing up to the UN Sustainable Development Goals.*''[199].

[196] Ibidem note 189, pag. 143 para 606
[197] Ibidem note 189, pag. 144 para 614
[198] As it was stated by the ACM this document explains to what degree sustainability initiatives of businesses are compatible with competition law.
[199] *Guidelines on sustainability claims*, Introduction, Autoriteit Consument & Markt, pag.5, it is also important to underline that the Netherlands has committed to implement the sustainability goals in the 2015 Paris Climate Agreement as well as the UN

In order to fulfil the ultimate environmental purpose also consumers and, in particular, companies want to contribute; however, the linkage between sustainability and transparency in the industry has many shortcomings from its limitation to the doubtful outcomes on how the information is used[200]. Therefore, companies have to be transparent in order to boost competition on sustainability and enable consumers to contribute to more sustainable lifestyle choices. This is the reason why ACM also had to take into account the misleading information regarding sustainability[201] which is known as greenwashing. The ACM in order to assess honest sustainability claims, as stated in the guidelines, have to consider five different rules of thumb. The first one is to make clear what sustainability benefits the products offer and it primarily includes the necessity to use a clear and specific language with easy-to-understand terms to concretely describe the real benefits of the products or services provided.
The second rule states to substantiate the sustainability claims with facts and keep them up to date, in particular, those claims that have to be justified with verifiable and correct evidence, for instance, the international standards that the international organization for standardization developed. While the third specifies that the comparisons with other products, services, or companies must be fair. Indeed, it is fundamental that there is no misunderstanding among consumers about the sustainability features of similar products of different companies[202]. In addition, the second-last rule affirms, to be honest, and specific about the company's efforts for sustainability while the last is to make sure that visual claims and labels are useful to consumers, and not confusing. Instead, the second draft of the Guidelines on sustainable agreements with opportunities within competition law was published two days earlier than the Guidelines for misleading sustainability claims. In this wise, the ACM offered a practical explanation of the application of competition rules on sustainability agreements[203].

It is important to highlight the definition given for the environmental-damage agreements, which are conceived as damage to the environment in the production and consumption of goods or services[204]. For instance, they are considered environmental damage agreements emissions of harmful air pollutants and greenhouse gases whose reduction led to efficiency gains not only for the consumers but also for the society as a whole. This guideline, taking into consideration both section 6 paragraph 1 of the Dutch Competition Act and Article 101 para.1 of TFEU, analyzed three different opportunities that could arise against competition law. Firstly, not all sustainability agreements restrict competition because they may concern less important competition parameters, and those allowed are categorized into five different groups: the first

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Sustainable Development Goals. Indeed, by 2030 the Netherlands wishes a reduction of 49% the greenhouse gas compared with 1990 and carbon-neutral by 2050.

[200] T.A. Gardner, M. Benzie, J. Börner, E. Dawkins, S. Fick, R. Garrett, J. Godar, A. Grimard, S. Lake, R.K. Larsen, N. Mardas, C.L. McDermott, P. Meyfroidt, M. Osbeck, M. Persson, T. Sembres, C. Suavet, B. Strassburg, A. Trevisan, C. West, P. Wolvekamp, *Transparency and sustainability in global commodity supply chains*, Volume 121, 2019, Pages 163-177

[201] https://www.acm.nl/en/publications/insight-2020-better-certification-labels-are-necessary-making-sustainable-choices-easier

[202] There are indeed specific rules on comparative advertisement in the Section 6:194 of the Dutch Civil Code

[203] *Guidelines on sustainability agreements on opportunities within competition law*, Autoriteit Consument & Markt, pag. 4

[204] Ibidem note 206, pag. 6

category is the one that incentivizes undertakings to make a positive contribution to a sustainable objective without being binding, the second concerns codes of conduct promoting environmentally conscious, climate-conscious or socially responsible practices. The third category is formed by those agreements aimed at improving product quality, while, at the same time, certain products that are produced in a less sustainable manner are no longer sold and the last group concerns initiatives where new products or markets are created through innovation, and where a joint initiative is needed for acquiring sufficient production resources, including know-how, or for achieving sufficient scale and lastly, the agreements whose sole purpose is to make the undertakings involve their suppliers and/or their distributors with respect to the national or international standards that apply on doing business in countries outside Europe, particularly in developing countries[205].

The second opportunity is the sustainability agreements with benefits that offset restrictions of competition. Here, the assessment is made following four different criteria: the agreements offer efficiency gains, including sustainability benefits, the users of the products in question are allowed a fair share of those benefits, the restriction of competition is necessary for reaping the benefits, and does not go beyond what is necessary and competition is not eliminated in respect of a substantial part of the products in question.[206]
In the last opportunity, if the agreement is not compatible with the Dutch Competition Act, the firms are invited to contact the ACM in order to provide the correct adjustments and assess the various options. However, the ACM emphasizes that sustainability considerations may develop and keep pace with the current environmental situation and relationship with the competition policy.

3.3 Other Proposals: HCC's Sandbox and CMA Proposal

The ACM proposal, as previously stated, was followed by three other national initiatives which added the promotion of green growth to their purposes. The first to be analyzed is the Hellenic competition authority's guidelines also called the Hellenic Sandbox. To evaluate the implementation of this proposal it is important to recall the economic consequences of the European sovereign debt crisis in Greece, which started at the end of 2009. As a matter of fact, the Greek crisis undermined the possibility for medium and small enterprises to develop green technologies and processes in the long term due to a lack of funds and a change in the priority, meaning that cooperation was needed to innovate[207] and develop new process or products to foster a green transition. However, the environmental protection in Greece is a constitutional obligation of the state written in Article 24 in which it is stipulated that ' '*The protection of the natural and cultural environment constitutes a duty of the State and the right to every person. The State is bound to*

[205] Ibidem note 206, pag.10
[206] Ibidem note 206 pag. 12
[207] Alina Hyz, *SME Finance and the economic crisis: the case of Greece*, Routledge Publisher, December 2010

adopt special preventive or repressive measures for the preservation of the environment in the context of sustainable development''[208]. These concepts are also reflected in the paper issued, in which the transition towards a sustainable economy is perceived as an important source for market opportunities and economic development in the future[209]. Nevertheless, there are different dimensions of sustainability that may provide different approaches in competition law. The environmental concerns may be seen as a broader externality to take into account in the law enforcement, it may impact the goals of competition law and policy, and it may frame the various standards and tests applied in competition law[210]. In particular, the Greek proposal considers that it should focus on and enforce competition law in a way that does not remove private and public sustainability strategies.

As the Dutch proposal, the Greek one analyzes the possible sustainable development considerations under Article 101 TFEU and under the Greek Article 1 Law 3959/2011. In the case that sustainability agreements may restrict competition they could be excluded from the prohibition of Article 101 TFEU only if they are mandated by regulation or when the State acts in the exercise of official authority[211]. A further possibility for the agreements to overcome the scrutiny under Article 101 para.1 TFEU and Article 1 Law 3959/2011 is to make a sustainability agreement as a standardization agreement. Ultimately, the Greek competition authority proposed the concept of the ''sandbox'' with which firms can experiment cooperation without breaking the laws. Instead, the UK Competition and Markets Authority (CMA) lately, in March 2022, has recommended a number of actions for the government to consider regarding sustainability. However, previously in January 2021, the CMA published high-level guidance on environmental sustainability agreements[212] in order to be compliant with the CMA objectives of supporting a transition to a low carbon economy. The CMA wanted to ensure that competition does not create an obstacle to sustainable development. Indeed, this guideline was focused on the environmental aspects of the agreements correlated with its strategic priority. Especially, the setting has to be fair, reasonable and non-discriminatory for all the businesses that could be involved or that could participate, moreover, the businesses have to consider whether their agreement could benefit from the existing block exemption conditions[213] despite their potential restrictive effects.

The main difference between these three proposals is that the ACM guidelines goes beyond the principal market in which cooperation agreements occur and the immediately affected consumers. Indeed, they also refers to a greater extent of actors that could both influence and be affected by cooperation agreements concerning sustainable development.

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[208] The Constitution of Greece, as revised by the parliamentary resolution of May 27th, 2008, of the VIIIth Revisionary Parliament, Athens Hellenic Parliament edition 2008, pag.42
[209] Ibidem note 206 pag.7
[210] Ibidem note 206 pag. 10
[211] Ibidem note 206 pag.19
[212] Environmental sustainability agreements and competition law, Competition & Market Authority, January 2021
[213] The individual block exemption conditions are regulated under Section 9 of the Competition Act 1998.

3.4 New Guidelines on Vertical Agreements

The European Commission on the 10th of May 2022 published new guidelines on vertical agreements, which are the sale of purchase or purchase of goods between parties operating on different level of the supply chain, along with a new vertical block exemption regulation. The new vertical guidelines explicitly mentioned vertical agreements which pursue sustainable objectives. In particular it emphasized that these agreements '' *are not a distinct category of vertical agreements under Union competition law''*[214]. Therefore, they must be assessed under the conditions and principles set out in these guidelines.

The first example of the assessment of vertical agreements that pursue sustainability objectives is the use by suppliers of both quantitative and qualitative criteria to select distributors[215]. Quantitative criteria imposed conditions that cannot be met by all distributors such as the use of advertisement or training of the personnel while qualitative criteria refers to the achievement of sustainability objectives, for instance, some suppliers could require distributors to deliver goods in a sustainable manners.

The second example provided is the imposition of exclusionary obligations to incentivize green investments[216]. This could occur when an energy supplier, facing an increase in the demand of renewable energy, wishes to invest in green energy plants. In this case the buyer would be incentivized to pursue this investment only if there is a sufficient number of buyers willing to use green energy in the long period.
As it is stated in the document: '*'Such vertical agreements with buyers may be pro-competitive, as the long-term non-compete obligations may be necessary for the investment to take place at all, or for it to take place on the foreseen scale of within the foreseen time''*[217]. As a result, exclusionary obligations may fulfil the conditions of Article 101 para.3 TFEU.

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[214] Approval of the content of a draft for a Communication from the Commission: Guidelines on vertical restraints, C(2022) 3066 final, May 2022, para.8
[215] Ibidem note 214 para.144
[216] Ibidem note 215
[217] Ibidem note 214 para. 316

CHAPTER IIII

ABUSE OF DOMINANCE

4.1. Abuse of Dominance: General Overview and Article 102 TFEU

Under competition policy are prohibited three different main practices that could occur between firms in the market. The first and the second are restrictive agreements regulated under Article 101 TFEU and concentration, in particular, mergers, that were assessed in the previous chapters. The third and last practice that is going to be analyzed in this chapter is unilateral anticompetitive conduct, which the European Union referred to as abuse of dominance[218]. A dominant position as is stated in the case Hoffmann-La Roche v. Commission is *''position of economic strength enjoyed by an undertaking which enables it to prevent effective competition from being maintained in the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, its customers and ultimately of the consumers''*[219]. Holding a dominant position, as happened with Microsoft or Apple, in the market is not a prerequisite that ensures distortion of competition, so is not punishable per se, but the abuse of that position is what is forbidden. Furthermore, dominant firms have a special responsibility to ensure that their behaviour in the market does not further reduce the level of competition, so they are obliged to not conduct certain practices that may be lawful for other non-dominant but unlawful if the dominant firm conducts them.

This abuse could arise within a single firm, the so-called individual dominance, or between two or more firms that act as a single economic entity, called a collective dominance. In particular, the concept of collective dominance is characterized by two different factors: a collective position which is when two or more firms are able to adopt a common course of action on the market and a dominant position in which the collective entity must be able to behave independently without limiting other operators.

The abuse of dominant position is regulated on both national and European levels, on the latter those anticompetitive positions are controlled under Article 102 TFEU which stated:

> *''Any abuse by one or more undertakings of a dominant position within the internal market or in a substantial part of it shall be prohibited as incompatible with the internal market in so far as it may affect trade between Member States.*
>
> *Such abuse may, in particular, consist in:*
>
> *(a) directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions;*

[218] Examples of abuse of dominance are the imposition of unfair prices, a limitation of production and the application of dissimilar conditions to the parties

[219] Case 85/76, Judgement of the Court of 13 February 1979, Hoffmann-La Roche & Co. AG v Commission of the European Communities, Dominant position, para. 4

(b) limiting production, markets or technical development to the prejudice of consumers;

(c) applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;

(d) making the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts.[220] *''.*

The main difference between Article 101 and Article 102 is the fact that the latter does not provide a possibility of exemption as in para.3 of the former article. Nevertheless, dominant firms that are accused of abusive behaviour may demonstrate that there is an objective justification. This could be done by demonstrating either that the conduct is objectively necessary or that the conduct provides efficient defence[221].

It is also fundamental to highlight the two different types of abuse, exploitative and exclusionary abuse. The first consists of directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions whereas the second encloses all those practices that have as a result the elimination of competitors from the markets[222]. The commission identifies two different factors that are required for exclusionary abuses, a foreclosure that prevents the access of actual or potential competitors in the market and consumer harm. Examples of the latter abuse are: predatory pricing, which consists of setting extremely low prices in order to push competitors out of the market; exclusive dealing, where a firm is obliged to purchase or sell goods or services exclusively from or to a dominant firm; loyalty discounts; discriminatory behaviour; refusal to deal, which includes the refusal to grant access to essential facilities or the IRPs; price squeeze, which occur when vertically integrated monopolists, who have a dominant position, sell its upstream bottleneck input to firms that compete with the monopolist in the production of a downstream product and the dominant firm itself can set the price for the input relatively high and its downstream price relatively low, so that the upstream-downstream price differential turns out to be too small to enable downstream competitors to actually compete, and lastly, the imposition of the purchase of additional goods or services as a condition to enter into a contract, the two main practices are tying and bundling.

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[220] Consolidate version of the Treaty on the Functioning of the European Union-Part three: Union policies and internal actions – Title VII: common rules on competition, taxation, and approximation of laws- Chapter 1: rules on competition- Section 1: Rules applying to undertakings- Article 102 (ex. Article 82 TEC), Official Journal 115, P.0089-0089, May 2008

[221] Tjarda van der Vijver, '*Objective Justification and Article 102* TFEU', (2012), 35, World Competition, Issue 1, pp. 55-76, https://kluwerlawonline.com/journalarticle/World+Competition/35.1/WOCO2012004 and the Commission's Priority Guidance on exclusionary abuses

[222] Ecem Susoy Uygun, *Types of abusive conduct,*Freie Universitat Berlin, June 2017, https://wikis.fu-berlin.de/display/oncomment/Types+of+abusive+conduct

4.1.1. Identifying a Relevant Market

When there is an assessment of an abuse of dominance, there are three different steps to follow: the definition of the relevant market in which the firm has its dominant position, the estimation of the market share and lastly the analysis of the portion of the parties taking into account additional factors as barriers to entry or buyer power. The first is formed by the relevant product market which includes all the products or services that have the same features so they could be substituted between each other and then the relevant geographic market that comprises the area in which the conditions of competition are similar[223]. In order to define the relevant market, with relevant product and geographic market, the Commission provides an assessment based on the notion of substitutability for both demand and supply so for both consumers and suppliers. In addition, it is also necessary to examine the conditions of access to the market as consumers' preferences or elasticity of demand[224]. Assessing the relevant market permits to define the main actors of the market, but in particular, in order to classify them, it is possible to measure their market power and market share.

4.1.2 The Assessment of Market Power

Market power is the capacity to increase prices above the level of marginal cost, it is measured with the Lerner index[225]:

$$L = \frac{(P - MC)}{P}$$

The larger the Lerner index the greater the degree of market power, indeed, when the index is equal to one there is a monopoly, while when the index is equal to zero there is a perfect competition[226]. However, in practice competition authorities can assess market power only indirectly through market share. In case of extremely high market share. When the market share exceeds a threshold equal to 70 %, they may conclude that the firm is dominant but for exceptional circumstances. Above 50% there is a very strong indication of dominance[227]. In most cases, the dominant firms' market shares are above 40 %. While below 25 % there is a presumption of absence of dominance.

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[223] Definition of the relevant market, https://eur-lex.europa.eu/EN/legal-content/summary/definition-of-relevant-market.html

[224] Ibidem note 227

[225] The Lerner index was formalized by a Russian-British economist Abba P. Lerner in 1934, it is measured as the percentage markup of price above marginal cost, it has a value between zero and one.

[226] Andrew Barkley, *The Economics of food and Agricultural markets*, New Prairie Press, Chapter 3, ISBN-13:978-1-944548-22-3 December 2016

[227] This is particularly stated in the AKZO case, Case C-62/86 AZKO v Commission, EU:C:1979:36 para. 39-41

4.2. The Relation between Abuse of Dominance and Sustainability

The existing legal literature is far more focused on the relationship between Article 101 TFEU and sustainability rather than the one between Article 102 TFEU and sustainability. In this case, a dominant position may be related to environmental reasons in order to justify prima facie abuse. This could occur for instance when there is an increase in prices due to production costs that otherwise would increase greenhouse gases or pollution in general. However, the real question is whether environmental reasons could be directly conceived as objective justifications or not. The doubts rely on the fact that there is not a direct definition for the objective justifications, as it is stated by the Court in the *Post Danmark A/S v Konkurrenceradet*: *''an undertaking may demonstrate [...] that its conduct is objectively necessary''*[228]. However, these practices could be analyzed with a proportionality test, indeed, consumer safety and health may be considered justifiable objectives to pursue, however, the Commission also stated that: *''it is not the task of a dominant undertaking to take steps on its own initiatives to exclude products which it regards, rightly or wrongly, as dangerous or inferior to its own product''*[229].
The second justification is with efficiency defence. In the Priorities Guidance it is stated similar requirements as Article 101 para.3 that the firm must show: *''efficiency gains counteract any negative effects on consumer welfare and competition in the affected markets, the efficiencies have been or are likely to result from the conduct, the conduct is necessary to achieve the efficiencies and the conduct does not eliminate effective competition''*[230]. By demonstrating that these practices produce efficiencies that outweigh the negative effects, the company may continue to carry out these practices. However, by assessing the two justifications, in particular, objective justifications under Article 102 it is possible to determine that the Priorities Guidance in this sector should be expanded due to the fact that those are briefly mentioned, without expressing the circumstances under which those justifications could prevail. Furthermore, for the second category, it could occur that sustainability protection enacted by the practices of the firm would not provide any efficiencies due to the fact that they do not have an economic nature. In conclusion, even though sustainability factors could be highly considered in Article 102, the current authorities or legal literature do not provide any deepening in this area.

[228] Case C-209/10 para. 41
[229] Communication-Guidance on the Commission's enforcement priorities in applying Article 102 to abusive exclusionary conduct by dominant undertakings, 2009, OJ C 45/7 para.29
[230] Ibidem note 229 para.30

CONCLUSIONS

Since the presentation of the European Green Deal in December 2019, the interaction between competition law and sustainability was extensively debated at the member state level, however, this relation appeared less reckoned by the European competition authority. The latter attitude had taken a new direction after commissioner Vestager's speech, already analyzed in the first chapter[231].

On the 13th of October 2020, the European Commission published a call for contributions to support the Green Deal and open a debate to determine in which way competition rules and sustainable policies can work together, by widening the set of views with help of stakeholders, including companies, social partners, governments, public administrations, competition authorities and the civil society[232]. The call for contribution was structured in three different parts; the first part considered state aid control, which relates to the assessment of aid measures with the internal market. The second and the third part were antitrust rules and merger control, analyzed in the previous chapters, due to the fact that in both cases competition in the internal market could be significantly damaged. An example of one of the 200 contributions to DG COMP, related to the Farm to Fork initiative[233], is the one made by Unilever.

In the introduction of their contribution, they specified that the main pillars of sustainability efforts are industry collaboration and competition policy. Indeed, they focused on the necessity to create a coordinated action between firms to avoid environmental and social crises; however, this may go beyond competition law rules or firms may not want to bear extra costs or implement progress without any mandatory standards. For this reason, they invited the Commission to define limits and to propose collective actions that otherwise would not be able to occur due to a lack of certainty and conservationism in the market[234]. The contributions were discussed in a conference, titled *''Competition policy contributing to the European Green Deal''*, organized by Executive Vice President Margrethe Vestager on 4th February 2021. On this occasion, the EU institutions clarified the importance of competition policy in driving green processes and technological change in order to boost green jobs in relation to EU values. Specifically, in the policy brief titled *''Competition policy in support of Europe's Green Ambition''* they summarized all the contributions in which the respondents stress the key role of the member states' aid policy, in particular, the necessity to

[231] It is important to underline that, after one year from the call for contributions, the Vice-President Vestager not only supported the goals of the Green Deal but also stated that 30% of the 1.8 trillion euros from Europe's new long-term budget and our recovery instrument, NextGenerationEU, will be spent to tackle climate change. This represents one of the pieces of evidence of the change in the attitude of European institutions. https://ec.europa.eu/commission/commissioners/2019-2024/vestager/announcements/competition-policy-support-green-deal_en
[232] *Competition policy's contribution*, Green Gazette, https://ec.europa.eu/competition-policy/policy/green-gazette/competition-policy_en
[233] As it is stated by the European Commission, this initiative is one of the main pillars of the European Green Deal, ''i*ts aim is to reduce the environmental and climate impact of primary production whilst ensuring fair economic returns for farmers''*
[234] Unilever submission for the call for contributions, the benefits of a predictable, progressive competition law framework-for Europe and beyond, pag.2

increase transparency on any states' initiatives that may be detrimental to the environment and for favouring non-fossil fuel funding[235]. For antitrust what resulted from the contributions was the way in which the rules needed to be clarified, such as the use of block exemption regulations or an open-door policy to effectuate sandbox regulations[236]. Lastly, regarding merger control, the majority of contributors recall the attention to consider a longer time horizon for social benefits and to strengthen enforcement concerning possible harm to innovation[237].

In addition, the contributions foster new initiatives and already existing reforms. In the part of state aid there is the climate, energy, and environment aid guidelines (CEEAG)[238], which entered into force on the 1st of January 2022, that permits member states to meet European Green Deal objectives without taxpayers bearing any costs and extends the scope of the guidelines to new sectors such as clean mobility and biodiversity. For antitrust as it was assessed, they have proposed the new call for contribution for the draft on horizontal cooperation agreements closed on the 26th of April 2022 and assessed in the previous chapter. Then for merger control, in March 2021 the Commission adopted a guidance paper on the application of the referral mechanism between member states and itself as it was set out in Article 22 of the merger regulation[239].

The next competition policy brief, issued in December 2021, was based on 12 submissions from university students[240] chosen by a panel of DG competition officials. The two main results from these contributions were: *'' Competition policy and tools should grow stronger and sharper to support sustainability policies and there is a great deal that competition policy can do for a greener future''*[241]. In particular, the contribution from Emilie Van Hemeldonck, titled ''*The EU Green Deal and competition policy: challenging the status quo today, to protect ourselves tomorrow''*, highlights that to fulfil the Green Deal's objectives, Article 101 para.3 should be extended also to the society as a whole and future generations. This could be pursued by the new EU climate law thanks to which the Commission could quest a greener path, taking also into consideration the benefits for the future societies[242].

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[235] A. Badea, M. Bankov, G. Da Costa, J.E Cabrera, S. Marenz, K. O'Connor, E. Rousseva, J. Theiss, A. Usai, S. Vasileiou, A. Winterstein, M. Zedler, Competition Policy Brief, September 2021, ISBN:978-92-76-41099-7, ISSN:2315-3113, pag.1
[236] Ibidem note 239, pag. 2
[237] Ibidem note 239, pag.3
[238] These guidelines provide a framework for public authorities to support the European Green deal objectives efficiently and with minimum distortions of competition, in particular as it is stated by the European Commission this focus on: '*'broaden the categories of investments and technologies that Member States can support to cover new areas and all technologies that can deliver the Green Deal*, [..] *increase flexibility and streamline the existing rules by introducing a simplified assessment of cross-cutting measures under a single section of the Guidelines, […] Introduce safeguard, such as public consultation requirement above certain threshold, […] is limited to what is needed to achieve the environmental goals and does not unduly distort competition or the integrity of the Single Market, […] Ensure coherence with the relevant EU legislation and policies in the environmental and energy fields''*. https://ec.europa.eu/commission/presscorner/detail/en/qanda_22_566
[239] https://ec.europa.eu/commission/presscorner/detail/en/ip_21_1384
[240] The views suggested in this special brief, titled *''Young experts' views on the greening of competition policy''*, do not precisely represent those of European Commission.
[241] Ibidem note 239, pag. 2
[242] Ibidem note 239, para. 61

Ultimately, for the beginning of the first semester of 2022, it is fundamental to underline the European position towards energy policy and the manoeuvres of the European institutions due to Russia's invasion of Ukraine. Indeed, before the beginning of the war on the 24th of February 2022, the European dependence on Russian natural gas was around 40 per cent[243]. However, after the invasion, the reduction of gas production by favouring renewables source of energy and the dependence on gas imports became two of the Commission's main priorities in order to take a strong position against Putin's war and to protect GDP growth from the shock in energy prices, which would likely have a negative effect on businesses competitiveness.

To shift toward this position, on the 8th of March 2022, the Commission published the REPowerEU plan to reduce the dependence on fossil fuels, especially of a Russian origin by two thirds before the end of the year and to boost the use of renewable energies. In the introduction of the document, they specifically stated that: '' *Following the invasion of Ukraine by Russia, the case for a rapid clean energy transition has never been stronger and clearer*''[244], this could be done with a massive investment in renewable energy, which is one of the bases of the European Green Deal. This plan is based on energy savings in order to maintain an adequate level of storage throughout the winter, indeed, due to the current situation, the Commission requested that gas storage would be identified as a critical infrastructure[245]. In addition, the Commission is investigating a potential distortion of competition in the natural gas market by the subsidiaries of the Russian company Gazprom in Germany[246]. The next basis of this plan is the elimination of Russian gas in Europe by considering two main factors: the diversification of gas suppliers and the reduction of fossil fuels in buildings or generally in industries by increasing the share of renewable. These will start to occur also with the full implementation of Fit for 55 per cent[247], adopted on the 14th of July 2021, in which the Commission proposed: two different directives aimed at enhancing the emission trading system[248], a regulation's proposal to amend the normative on land use and forestry, a regulation on the system of effort sharing and lastly a regulation to institute a social fund for the climate[249].

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[243] McWillams, Ben, et al. *Can Europe survive painlessly without Russian gas?* Bruegel-Blogs, 27 January 2022, p.NA Gale Academic One File u=anon~c8ef42fe&sid=googleScholar&xid=0b8c67f9

[244] Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the regions, REPowerEU: Joint European Action for more affordable, secure and sustainable energy, COM/2022/108 Final, March 2022

[245] A critical infrastructure as it is provided by the European Commission is:'' *an asset or a system which is essential for the maintenance of vital societal functions. [..] its destruction […] may have a significant negative impact for the security of the EU and the well-being of its citizens.* '' https://ec.europa.eu/home-affairs/pages/page/critical-infrastructure_en

[246] Angelique Bret, Tadeusz Gielas, *Competition authorities in Europe respond to Ukraine crisis,* Pinsent Masons publications, April 2022, https://www.pinsentmasons.com/out-law/news/competition-authorities-in-europe-respond-to-ukraine-crisis

[247] The Fit for 55% is a package of proposals used in order to coordinate the current normative regarding climate and energy in order to reduce by 2030 the overall emission of greenhouse gases by at least 55% with respect to 1990 levels.

[248] As it is stated by the European Commission: ' *'The Emission Trading System puts a price on carbon and lowers the cap on emission from certain economic sectors every year''* https://ec.europa.eu/commission/presscorner/detail/en/IP_21_3541

[249] https://ec.europa.eu/commission/presscorner/detail/en/IP_21_3541

Nevertheless, the REPowerEU plan would only be developed by the Commission with the member states during the summer to:'' *support diversification of energy supply, accelerate the transition to renewable energy and improve energy efficiency''*[250].

Considering the future developments of the war, it is likely that European industries would suffer from the disruption of supply chains, especially in agriculture due to the sanctions and counter-sanctions imposed by Moscow. So, the most important development for competition law was made with the European Commission communication on the *''Temporary crisis framework for state aid measures to support the economy following the aggression against Ukraine by Russia''*, this will enable member states to limit the amount of aid to companies, provide liquidity support with guarantees and cover the costs of high gas and electricity[251]. Furthermore, the Commission, to let the aid be compatible with the internal market, imposed that the temporary framework can only be applied until the end of 2022 and it could also encourage member states to set the requirements on environmental protection[252].

Additionally, on the day of the invasion, the European competition network (ECN) issued a joint statement[253] with the European Council regarding the application of competition law with respect to the Russia-Ukraine war. On this occasion, it declared that the already existing rules of the competition are sufficient to assess the new crisis and moreover it would not actively intervene in cases in which those measures are necessary, temporary, and specifically targeted to avoid any severe disruption on the market. Not to mention that they have highlighted the importance to maintain competitive prices and not taking advantage of the current crisis for the company's own benefit, otherwise competition authorities would intervene in order to block the abuse of dominance or cooperation.
Lastly, for merger control, until the end of May, the EU institutions did not provide any guidance, but commentators expect the release of a framework similar to the one used during the covid crisis[254].

In conclusion, in the following months' competition authorities should be prepared to quickly adjust the regulatory environment, also in light of the recent experience with the covid pandemic. Not only taking into account economic factors, that as we have seen in this thesis are the factors that have the most immediate impact on our society, but also non-economic factors such as climate change and the urge to implement sustainable development in all the areas of our society. Indeed, the latter represents the factors that we may not be able to immediately recognize, but surely, they are affecting our lives and they will affect our lives in

[250] Ibidem note 240, conclusions
[251] http://competitionlawblog.kluwercompetitionlaw.com/2022/04/04/competition-law-in-times-of-war-response-to-the-russian-invasion-of-ukraine/
[252] Ibidem note 255
[253] https://ec.europa.eu/competition-policy/system/files/2022-03/202203_joint-statement_ecn_ukraine-war.pdf
[254] Dzhuliia Lypalo, *Competition law in times of war: response to the Russian invasion of Ukraine*, Kluwer competition law blog, April 2022, http://competitionlawblog.kluwercompetitionlaw.com/2022/04/04/competition-law-in-times-of-war-response-to-the-russian-invasion-of-ukraine/

the future and the life of our children. I would like to conclude this thesis with a quote from Christine Lagarde, the former President of the European central bank and at the time the managing director of the international monetary fund, concerning climate change that can summarize the meaning behind the choice of this subject.

''It's a collective endeavor, it's collective accountability and it may not be too late''[255]

[255] Session Tackling climate, development, and growth at the world economic forum in Davos in 2015

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