UNIVERSITA’ DEGLI STUDI DI PADOVA

DIPARTIMENTO DI SCIENZE ECONOMICHE ED AZIENDALI
“M. FANNO”

CORSO DI LAUREA IN ECONOMIA

PROVA FINALE

HOW DO USA AND EUROPEAN COMPETITION POLICY AUTHORITIES TREAT HORIZONTAL MERGERS

RELATORE:

CH.MA PROF.SSA DONATA FAVARO

LAUREANDO: ARRIGO CATTAPAN

MATRICOLA N. 2001146

ANNO ACCADEMICO 2022 – 2023

Dichiaro di aver preso visione del “Regolamento antiplagio” approvato dal Consiglio del Dipartimento di Scienze Economiche e Aziendali e, consapevole delle conseguenze derivanti da dichiarazioni mendaci, dichiaro che il presente lavoro non è già stato sottoposto, in tutto o in parte, per il conseguimento di un titolo accademico in altre Università italiane o straniere. Dichiaro inoltre che tutte le fonti utilizzate per la realizzazione del presente lavoro, inclusi i materiali digitali, sono state correttamente citate nel corpo del testo e nella sezione ‘Riferimenti bibliografici’.

I hereby declare that I have read and understood the “Anti-plagiarism rules and regulations” approved by the Council of the Department of Economics and Management and I am aware of the consequences of making false statements. I declare that this piece of work has not been previously submitted – either fully or partially – for fulfilling the requirements of an academic degree, whether in Italy or abroad. Furthermore, I declare that the references used for this work – including the digital materials – have been appropriately cited and acknowledged in the text and in the section ‘References’.

Firma (signature) Arrigo Cattapan

Table of Contents

ABSTRACT (IN ITALIAN) 1

ABSTRACT 2

CHAPTER 1 – DEFINITION OF THE THEORETICAL FRAMEWORK 3

1.1 Brief historical introduction of antitrust laws leading to merger control 3

1.2 The founding model for merger analysis: the simple Cournot Model 6

1.3 The main theoretical implications of a horizontal merger 8

CHAPTER 2 – THE AMERICAN APPROACH: A DEEPER LOOK INTO THE 2010 HORIZONATL MERGER GUIDELINES 11

2.1 Introductory description of the main feature of the guidelines and type of evidence used 11

2.2 Techniques used for market definition and the market structure analysis 12

2.3 The treatment of the unilateral and coordinated effects and of the efficiencies 14

2.4 Limits emerged from the literature and possible suggestions for improvement 16

CHAPTER 3 – THE EUROPEAN APPROACH: AN OVERLOOK UPON THE EC MERGER REGULATION AND THE EC GUIDELINES 20

3.1. Introduction to the laws on European Merger Control 20

3.2 Techniques used in merger review in comparison with the American approach 21

3.3 Critiques and remedies emerged from the literature 24

REGULATORY REFERENCES 27

BIBLIOGRAPHY 28

ABSTRACT (IN ITALIAN)

Questo elaborato ha l'obiettivo di illustrare il modo in cui le fusioni orizzontali sono trattate dalle autorità preposte alla politica della concorrenza negli Stati Uniti e in Europa, attraverso una panoramica delle leggi applicate. Per cominciare, fornirò un breve riassunto del percorso storico che ha portato alle moderne leggi sulle fusioni orizzontali e, facendo riferimento ad uno dei modelli di Cournot, illustrerò le teorie alla base delle principali implicazioni. I risultati che verranno presi in considerazione sono gli effetti unilaterali, gli effetti coordinati e le efficienze. Nel Capitolo 2 la discussione proseguirà esaminando l'iter procedurale seguito dalle Agenzie, con particolare attenzione alle soglie di sbarramento applicate. Successivamente, si analizzeranno le fasi seguite dalla FTC e dal DoJ, partendo dagli strumenti utilizzati per definire il mercato rilevante fino alla valutazione dei tre elementi sopra citati. Ciò avverrà attraverso la descrizione delle Horizontal Merger Guidelines. La stessa metodologia sarà utilizzata nell'analisi dell'approccio europeo in cui presenterò il contenuto principale delle linee guida europee e delle altre leggi a contorno, con l'aggiunta di alcuni confronti tra i due sistemi e delle ragioni alla base delle differenze emerse. Nell'ultimo paragrafo dei capitoli 2 e 3, presenterò alcune considerazioni sull'efficacia generale dei protocolli utilizzati tratte dalla letteratura e dai dati empirici degli ultimi decenni e fornirò possibili suggerimenti volti a risolvere i problemi.

ABSTRACT

This paper aims to illustrate how horizontal mergers are treated by competition authorities in the US and Europe through an overview of the laws applied. To begin with, I will provide a summary of the historical path that led to modern horizontal merger laws and, by referring to one of Cournot's models, illustrate the theories behind the main implications. The results that will be considered are unilateral effects, coordinated effects and efficiencies.

In Chapter 2, the discussion will continue by examining the procedural process followed by the agencies, with a focus on the thresholds applied. Next, the steps followed by the FTC and DoJ will be analysed, starting with the tools used to define the relevant market and ending with the assessment of the three elements mentioned above. This will be done through the description of the Horizontal Merger Guidelines. The same approach will be used in the analysis of the European approach in which I will present the main content of the European guidelines and the other outline laws, with the addition of some comparisons between the two systems and the reasons behind the differences. In the last paragraph of Chapters 2 and 3, I will present some considerations on the general effectiveness of the protocols used drawn from the literature and empirical data of the last decades and provide possible suggestions for solving the problems.

CHAPTER 1 – DEFINITION OF THE THEORETICAL FRAMEWORK

1.1 Brief historical introduction of antitrust laws leading to merger control

Nowadays it is prevalent in most countries worldwide to have some degree of laws and regulations which have a deeper look into mergers, but as it can be imagined, this was not always the case. For historical and cultural reasons, the two geographic areas in which anti-trust legislations have mostly risen and been kept under periodic review are: the United States of America and the European Union.

The first country to develop this type of legislation was in fact the USA with the founding law of antitrust, known as the Sherman Act, which was adopted in 1890. Before the adoption of this act, in the last decades of the 19th century in USA there were many price wars between companies which often led to market instability. The solution that was found to challenge this instability came in the form of cartels, trusts and in unwritten agreements between companies, with the most relevant examples being the Standard Oil Trust (1882) promoted by J.D. Rockefeller or the railroad trust promoted by J.P. Morgan. Thus, it is evident why Section 1 states: "Every contract, […] in restraint of trade or commerce among the several States, […] is declared to be illegal" (The Sherman Act, 1890)."

To add, one of the first most notorious cases in which this act was applied, is the Standard Oil Co. of New Jersey v. United States case, were on the 15th of May 1911, the Supreme Court of the United States found the corporation guilty of monopolizing the market and therefore violating the Sherman Act and it obliged the corporation's breakup into 43 separate companies. However, despite being a huge legal instrument that courts could use to challenge these corporations, the Sherman Act only focused on independent firms acting in an uncompetitive way in the market and aiming at monopoly behaviour. This is considered by the literature (Capron 1996)[1] as one of the main events that justify the growth of mergers between the 1890s and the 1910s. If two or more companies wanted to engage in anticompetitive behaviour by coordinating on price, they had the possibility to merge into a single firm. The following introduction of the Clayton Act had precisely the purpose to expand the antitrust legislation to

[1] Laurence Capron, 'Historical Analysis of Three Waves of Mergers and Acquisitions in the U.S. (1887-1904, 1916, 1916-1929, 1950-1970): Triggering Factors, Motivations and Performance' (Academy of Management Conference Best Papers Proceedings, Cincinnati, OH: Management History division, 1996), https://www.insead.edu/sites/default/files/assets/faculty-personal-site/laurence-capron/documents/historical-analysis-of-three-waves-of-mergers.pdf.

cover mergers which may have had the potential to threaten competition. To be more specific, this novelty is contained in Section 7 of the Clayton Act where it is stated that:"No person engaged in commerce or in any activity affecting commerce shall acquire, […] the whole or any part of the stock [...] where in any line of the commerce […] the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly". (The Clayton Act 1914)

In this act, it can be found for the first time a reference to the Federal Trade Commission. The reason for this is that in 1914 the Federal Trade Commission Act was also ruled. Through this act the FTC was created and defined as an independent agency that had the responsibility to enforce anti-trust laws, alongside with the Department of Justice, in the US[2]. The Commission is composed of five Commissioners, who are appointed by the President, and later given a final approval from the Senate. It shall be pointed out that no more than three of the Commissioners shall be of the same political party. Later, the Clayton Act has been amended and strengthen to cover up some loopholes in the law by two acts: the Celler-Kefauver Act (1950) and the Hart-Scott-Rodino Act (1976). It was up to the mid-seventies that the anti-trust intervention was at its peak because from there on, until the 1990s, a laisse-faire attitude driven by the Chicago school's critique and the Reagan years had prospered[3]. The first two decades of twenty first century have instead been characterized by a reinforcement of the anti-trust interventionism, which has led to the promulgation of the 2010 Horizontal Merger guidelines. However, there is still huge room for improvement since a serious challenge to big tech companies has still to be provoked.

In the European Economic Area there has been a different evolution of competition policy throughout the decades. It has obviously been highly influenced by the American one, but nevertheless it has some notable differences that shall be pointed out. These differences might appear to be quite narrow because most of the Antitrust (or competition policy as it is more often called in Europe) culture was enforced by the Allies after World War II, especially in Germany and in most of the central European countries. As an outstanding example of Europe's unique view of competition, we could look at the ways in which cartels were treated. Whereas in the US, cartels were declared unlawful in the late 19th century, in Europe it was considered a customary practice, if not the only way, for companies to ensure growth and high productivity.

[2] Massimo Motta, 'Horizontal Mergers', in *Competition Policy: Theory and Practice* (Cambridge University Press, 2004), 231–301.
[3] Motta.

They viewed the horizontal agreements as a tracked path to follow to avoid the fluctuations and instability of the market. It therefore comes to no surprise that cartels could operate by simply registering themselves at the national registers. The huge conglomerates that were created, were responsible for working under the Nazi regime and this concentration of power in the hands of few individuals was seen as one of the founding elements of the rise of fascism. Despite the attempts to overthrow this conception of cartels, this view was still held in many countries, for example Austria which considered cartels legal until 1995, year in which it joined the EU.

The dawn of a supra-national law may be the Treaty of Paris in 1951, which gave birth to the European Coal and Steel Community and was co-signed by France, Germany, Italy, and the Benelux countries. This treaty is seen as the founding of what will soon be the European Union. Moreover, the treaty introduced the idea of a common market with no barriers or customs between states and it banned any practice that restricted or distorted competition among the other nations. The adoption of this free-market conception may not only be a consequence of the military intervention of the United States, but also be influenced by the bright and efficient model through which America imposed itself as the global superpower. Another milestone towards the full implementation of competition policy was set by the Treaty of Rome in 1957, since in articles 85 to 94 it explicitly states the first rules on competition. It is interesting to see how the first comma of article 85 broadly bears resemblance to the content of the Sherman Act, it says: "The following shall be prohibited as incompatible with the common market: all agreements between undertakings, […] which may affect trade between Member States […]." ("EUR-Lex - 12002E081 - EN - EUR-Lex") (Treaty of Rome 1957).

Despite being a significant step forward, mergers are not made the explicit object of this piece of legislation, and it is only in the Merger Regulation of 1989 that mergers are finally looked in a more meticulous way. Then they were revised into the Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings and to further guide the process, the Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (2004/C 31/03) were promulgated.

1.2 The founding model for merger analysis: the simple Cournot Model

Having grasped the main historical insights and fixed what early laws led to the current protocols, it is time to start getting into the merits of horizontal mergers. To begin with, I would like to bring to the reader's attention one of the most widely used models in merger analysis to wit, Cournot's model. The Cournot model is widely used to describe those scenarios in which the agencies must deal with firms which each produce homogeneous good, and by contrast, Bertrand's model is mostly used to interpret markets characterized by firms producing heterogeneous goods. To add, the displacement of the initial Cournot equilibrium caused exogenously to the market structure by the merger is a typical way in which the consequences of horizontal mergers are studied. In addition to these, the Auction models stand out as particularly distinct from the mentioned ones. They serve as a framework for assessing mergers of companies in auction markets, where a fixed quantity is up for bidding. The emphasis solely lies on markets where the occurrence of bid rigging, also known as price fixing, is improbable.[4]

With that being said, let me now redirect the attention towards examining one of the Cournot models. My objective is to point out the primary effects and economic dynamics that unfold in such situations. To guide this discussion, I will mostly refer to the article written by Salant, Switzer and Reynolds in May 1983 entitled "Losses from Horizontal mergers: the effects of an exogenous change in industry structure on Cournot-Nash Equilibrium"[5].

Let's imagine an industry in which a "n" number of firms operate independently and are in a Cournot equilibrium. This scenario can be set against the equilibrium that occurs after the merge of a subset of firms, leaving the others independent. The goal is to analyse whether the profits of the merged entity are larger than the simple algebraic sum of the profits of the single merged firms prior to the merger. To facilitate the discussion, the subset of firms which take part into the merger will be referred to as "insiders", whereas the other firms which will keep acting independently will be addressed as "outsiders". All the firms are single-product firms with constant marginal costs. Simply for ease of consultation the functions drawn in Figure 1.1 are linear since the conclusions to which we head are not influenced in any matter by the shape of the curves. Firstly, the graph has as its axes the two outputs produced respectively by the

[4] Serdar Dalkir, John Logan, and Robert Masson, 'Mergers in Symmetric and Asymmetric Noncooperative Auction Markets: The Effects on Prices and Efficiency', May 1998.

[5] Stephen W. Salant, Sheldon Switzer, and Robert J. Reynolds, 'Losses From Horizontal Merger: The Effects of an Exogenous Change in Industry Structure on Cournot-Nash Equilibrium', *The Quarterly Journal of Economics* 98, no. 2 (1 May 1983): 185–99, https://doi.org/10.2307/1885620.

outsiders (in the x-axis) and the insiders (in the y-axis). Let's denote the total output produced by non-cooperating outsiders for a given aggregate production (Q) by insiders as $R_O(Q)$. Then by $R_I^{NC}(q)$ the total output produced by non-cooperating insiders (prior to the merger) for a given aggregated production (q) by outsiders and by $R_I^{C}(q)$ the production of insiders after the merger. As it is shown in the figure, the first Nash equilibrium can be found in the intersection of $R_O(Q)$ and $R_I^{NC}(q)$ which is labelled as A. In point A, the insiders produce the vertical component Q_{NC} and the outsider produce the horizontal component q_{NC}. We now assume that an exogenous event occurs, which in this case is the merger, and triggers some shifts in the curves. However, since the response of non-colluding firms to the aggregate supply of insiders is independent from whether the supply comes from a merged firm or from a group of non-colluding firms, the $R_O(Q)$ remains unchanged. On the other hand, the curve that shifts is the reaction-function of the insiders. Once the merger has taken place, the aggregate output of insiders will restrict since they will absorb the inframarginal losses they were imposing upon each other. Consequently, the outsiders will gain a larger cut of the demand at the expenses of the insiders. It can easily be inferred that the profits of the insiders will also follow the decreasing trend.

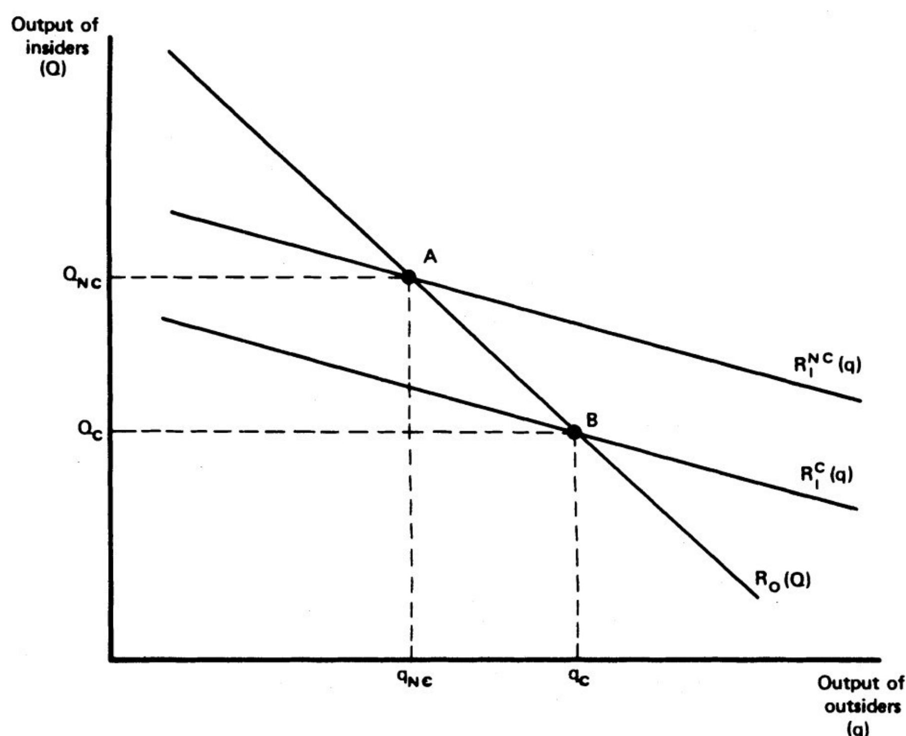

Figure 1.1

Production Responses from Merger

Losses from Horizontal Merger (Salant, Switzer and Reynolds, May 1983)

What is briefly represented in the model may already lead to some hasty conclusions as to the reason why companies merge. All in all, a cursory intuition that could possibly arise is that the only way in which a merger could become profitable is if it leads to monopoly. In that scenario, the negative externality imposed by outsiders ceases to exit, hence the profits will increase. To be more precise, the authors suggest that for any number of firms present in an industry, a merger can be deemed unprofitable if collusion is present in less than 80 percent of the firms.[6] After all, if a merger never causes losses to its participants, the empirical proof of this should be overwhelming. Another critique that can be made to this model is the fact that it deals with mergers as if they were an exogenous phenomenon, whereas there is no substantial evidence that could counterargue the possible endogeneity of a merger.

Apart from the inaccuracies mentioned above, the model hints the two ways in which a merger puts an upward pressure on prices: the unilateral effects (caused by the increase in market power) and the coordinated effects (induced by the changes in the market structure). They are commonly addressed by the economic community as the *theories of harm* that can occur from a merger. The net effect however may be ambiguous since the presence of possible efficiency gains (which were previously ignored).

1.3 The main theoretical implications of a horizontal merger

To be able to fully appreciate the discourse that will follow in the subsequent chapters on the actual content of the laws, I would like to outline what unilateral effects are and what influences them. First, we consider the possibility for unilateral effects to rise whenever there is the "elimination of the competitive constraint between the merging parties which enables the merged entity to increase prices above the pre-merger levels".[7] Imagine that in the main square of a city there a few independent cafés which all serve the same type of coffee. The competition between one another limits the market power of each café, since if one was to raise prices in a significant way, many of the customers of that café would switch to the closest competitor. The risk of being cut out from the market prevents the manager of that store in doing so, and so the consumer welfare is preserved. However, if two or more cafés decide to merge, the likelihood

[6] Salant, Switzer, and Reynolds. Page 193

[7] Andrea Lofaro et al., eds., 'Horizontal Mergers I: Unilateral Effects', in *The Economic Assessment of Mergers under European Competition Law* (Cambridge: Cambridge University Press, 2013), 148–317, https://doi.org/10.1017/CBO9781139022002.005.

that a price raise will eventually be profitable increases, because of the reduction of the number of competing cafés in the market.
The market power, and consequently the likelihood of the birth of unilateral effects, that can be enjoyed by both the merged entity and outsiders, may vary in intensity and extent due to several variables. The main of these variables are the market structure, and in particular its concentration and the way in which shares are held; the potential threat of entrance of a new firm; the downstream power held by the buyer. It comes to no surprise that these are going to be the main points which will be discussed in the laws.

The second way in which the merger is likely to lessen competition is through the facilitation of collusive behaviour. First, a merger naturally decreases the number of independent firms which operate in the market and so the fewer the number of firms, the higher the odds that the remaining firms will start to collude. The reason of this being that it is easier for the firms to have control of the events in the market and have a higher potential to access information about competitors. These can make collusion more sustainable than in the pre-merger scenario because a stronger deterrent for deviation can be activated, and the general threat of the jeopardization of this position is lower. Second, it is also likely that a merger might induce a higher degree of symmetry between the players in the market and thus decreasing the power of downstream buyers or even the final consumers. It is therefore crucial that the legislators consider the mentioned elements, even if their modulization is more complex than the one used for non-coordinated effects and their identification is more arbitrary, because in the long run they might be more harmful to consumers than unilateral effects.

Out of the three outcomes of a merger, the efficiencies are the least analysed and usually are found to be insufficiently large to clear the merger (Kaplow, 2021).[8] Focusing on the fact that they could potentially endorse the benefits of a merger, it is essential to underline the reasons. The first of which being the reduction of marginal costs of the now merged entity thanks to the possibility of reaching economies of scale. These economies are favoured by the fact that the merged entity is larger in size than the single firms which compose it and by the fact that a better reorganization of the production system and of the division of labour could take place, aided by the creation of synergies. To add, it is also more likely that, when dealing with firms which produce heterogenous goods, the fusion will enlarge the reduction of the costs thanks to

[8] Louis Kaplow, 'Horizontal Merger Analysis', *International Journal of Industrial Organization* 79 (1 December 2021): 102714, https://doi.org/10.1016/j.ijindorg.2021.102714.

the eventual economies of scope which can generate from the greater knowhow pool. An impact is also made towards the avoidance of duplication of fixed costs such as costs of distribution, marketing, and administrative activities and there is also less the need to collect high margin. In general, it is also quite clear how the presence of these efficiencies substantially narrows the profits of the outsiders. Based on the Cournot model previously presented, if the merged firm had the opportunity to lower its marginal costs, it would also be rationally incentivized to do so, since in the long period this would cause some, if not all, of the outsiders to exit the market and therefore gaining significant market shares. This adds another concern which should be kept in mind by the authorities and legislators when assessing the existence and dimensions of the efficiencies alongside with a deeper weight to the role of context during the *ex-ante* analyses of potential effects of mergers (Charpin and Piechuka, 2020)[9].

[9] Ariane Charpin and Joanna Piechucka, 'Merger Efficiency Gains: Evidence from a Large Transport Merger in France', *International Journal of Industrial Organization* 77 (January 2020).

CHAPTER 2 – THE AMERICAN APPROACH: A DEEPER LOOK INTO THE 2010 HORIZONATL MERGER GUIDELINES

2.1 Introductory description of the main feature of the guidelines and type of evidence used

After delving into the theoretical foundation of horizontal mergers, I now turn the attention to how the theoretical principles I have discussed have been transferred into the Horizontal Merger Guidelines (HMG) (2010) and shed light on the analysis conducted by the Agencies, the FTC (Federal Trade Commission) and the DoJ (Department of Justice). The focus around which the Guidelines are centred is the fact that a particular merger might *substantially lessen competition* (Section 7, Clayton Act 1914). These guidelines also aim to assist the courts in creating the most suitable framework for evaluating and applying the laws accordingly to the context. This is extremely important because if either the FTC or the DoJ, after a scrupulous review of a transaction, argue that the merger should be blocked, they must successfully enjoy in a legal proceeding. I shall point out however that many of the deals reviewed are cleared after the preliminary review, but a second request might still be issued. Once the second investigation is completed, the agency can choose which path to follow: if it is appropriate to close the case, if it is more suitable to arrange an agreement with the companies or if legal action in the federal district court shall be made. For completeness, the notification to the agency shall be made only if the value of the transaction is at least $111.4 million, as ruled for the Hart-Scott-Rodino (HSR) threshold for 2023. This threshold was first introduced in Hart-Scott-Rodino Antitrust Improvements Act of 1976 and was initially set at $50 million. From 2000 onwards, a change in the Act was put in place by the Congress so that the threshold must be annually corrected, depending on the variation of the gross national product. In the case in which the threshold is not met, the Agencies do still preserve the authority to investigate smaller mergers if there is the need.

Resuming our exploration of the HMG, I would like to start the discussion from one of the most significant changes in the guidelines: the introduction of Section 2. In the version prior to the 2010 one, the discussion started from the market definition, whereas in this new one, a section discussing the types of evidence used is the starting point. The list dispensed is not exhaustive, but it mainly treats the type of evidence that throughout the years and cases have shown to be the most informative and suitable for evaluating the past anti-competitive effects as well as

predicting the future ones. As the literature suggests, this section is valuable because it increases the transparency of the process and it guides the outside parties (Oldale, Scharg, Taylor 2021)[10]. The first type of evidence are the actual effects observed in consummated mergers, since if these effects have already risen in a comparable scenario, it is likely that they will rise again. This is linked with the second type, the direct comparison based on experience, in which the Agencies look for reliable evidence among similar markets. Then the Agencies attach importance to both the market shares and the concentration in a relevant market because market structure plays a crucial role when dealing with coordinated effects. In addition, a consideration on whether the firms will become head-to-head competitors or if a disruptive firm is being involved in the merger also takes place. In the second paragraph of the section are then outlined the most used and reliable sources of evidence, which are: the merging parties (extremely important when considering the possible efficiencies), customers which are commonly used to predict their rection to the merger and to its consequences, and other industry participants which can be relevant when assessing the likelihood of future coordinated effects.

2.2 Techniques used for market definition and the market structure analysis

Despite the HMG recognize that the analysis must not start with market definition, especially because nowadays there are more and more tools used in the evaluation of the anticompetitive effects, it preserves a predominant role in the discussion. The two main reasons for this being the role that market definition plays in helping the specification of the line of commerce or geographical area where the effects could manifest, and in the identification of the main market participants and the shares they hold respectively. The main issue is that there is a tight relationship between defining the relevant market and assessing the effects of a merger, as it is acknowledged by the FTC. To better understand this point, we can think that it is likely that if the price of a subset of goods increases sharply after a merger, this could establish that those are the products of the relevant market. Similarly, if a market is defined in a specific area, this will probably correspond to the area in which the increased price will be observed.

To define the relevant market, both on a product and on a geographic dimension, the theoretical technique used can be referred as the Hypothetical Monopolist Test or SSNIP test (Small but Significant Non-Transitory Increase in Price). The starting point of these tests is the narrowest

[10] Alison Oldale, Joel Schrag, and Christopher Taylor, 'The 2010 Horizontal Merger Guidelines at Ten: A View from the FTC's Bureau of Economics', *Review of Industrial Organization* 58, no. 1 (1 February 2021): 33–50, https://doi.org/10.1007/s11151-020-09800-z.

market definition possible, in which a hypothetical profit-maximizing monopolist firm is thought to operate. Then it is assumed to occur by hand of the monopolist a small but significant non-transitory increase in price, usually in a range between 5% to 10%. It shall be pointed out that the greater the increase, the more unreliable and inefficient the test becomes. After the increase, the Agencies observe if a profit is made or if in contrast there is a loss due to the increased price. If the first scenario happens, the market definition can stop, whereas if the second scenario occurs, the market definition must be expanded to include possible substitutes goods to which consumer switch. A graphical version of the test is shown in Figure 2.1. As mentioned, the test could be implemented when dealing with goods, but also when dealing with the suppliers to which customers buy from.

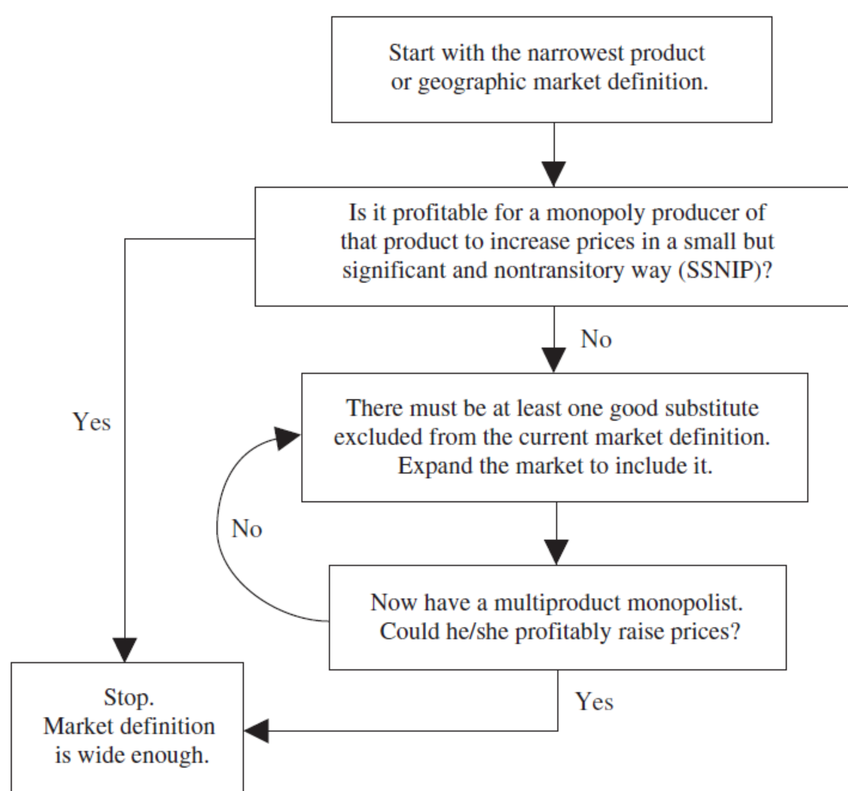

Figure 2.1

The HMT decision tree

Quantitative techniques for competition and antitrust analysis (Davis and Garces, 2009)[11]

A second tool that could be used by the inquirers, if the necessary data is accessible, is the "critical loss analysis". It has often been used in combination with the HMT due to its resemblance and simplicity. The main question to address is: how much do sales need to drop

[11] Peter Davis and Eliana Garcés, *Quantitative Techniques for Competition and Antitrust Analysis* (Princeton University Press, 2010), http://www.jstor.org/stable/j.ctt7sqz9.

to render an x% price increase unprofitable? To answer it, we must consider two types of losses: the critical loss and the predicted loss. The first shall be referred as the amount of lost sales that would maintain profits and the second as the amount of sales that the monopolist is expected to lose because of the increase. The profits of the hypothetical monopolist will increase in the event that the predicted loss is lower than the critical loss. These amounts can be easily calculated through the following formula:

$$\%Critical\ Loss = 100\ x\ \frac{\%\Delta Price}{\%\Delta Price + \%Initial\ Margin}$$

In the following section, the HMG discloses other key elements in the evaluation of the anticompetitive effects: the market share and the market concentration. Before taking these elements into account, it is worth highlighting that firstly the Agencies shall draw their attention upon the market participants. It is important to have a clear vision of the main features of the players in the market, spanning from the productivity of each firm to the dimension of the fixed costs. Then, thanks to the use of historical evidence and the data at disposal, the market shares of the firms in the defined relevant market are calculated. Afterwards, the Agencies can have access to the extremely useful indicator that is market concentration. The most common index of market concentration being the Herfindahl-Hirschman Index, better known as the HHI index. The HHI is computed by the sum of the square roots of the market shares of the individual firms. This allows the index to better weight the larger market shares. Based on the value of the HHI and on their empirical evidence, the FTC has distinguished three types of markets: the *unconcentrated markets* (with the HHI under 1500), the *moderately concentrated market* (with a HHI between 1500 and 2500) and the *highly concentrated markets* (with a HHI over 2500). Of equal importance are the changes in the HHI (commonly referred as delta HHI), because the higher the ΔHHI, for example if it is higher than 200, the higher the likelihood that the enhance market power of the players will rise sharply, enabling them to substantially lessen competition.

2.3 The treatment of the unilateral and coordinated effects and of the efficiencies

As mentioned above, the centrality of market definition and market structure analysis through the market shares and the concentration in merger review, is becoming less and less crucial, in favour of the new focus directed on the determination of the competitive effects of a proposed transaction. For the analysis of these effects the HMG suggest using specific evidence and techniques, which are most suited for the industry and nature its competition (Oldale, Scharg,

Taylor 2021)[12]. As mentioned in the law, these effects tend to be more visible if the merger leads to monopoly (as I discussed in Chapter 1) but by no means are restricted to that case. Alongside with the magnitude of these effects, the Agencies also need to take into consideration the time horizon in which they will manifest. For example, a merger could arouse serious concerns in the short period, but not in the long-term due to the possible entrance of new competitors in the market or by high technological innovations put in place by the other players. Moreover, the HMG discuss the most common types of unilateral effects which are: unilateral effects in markets with differentiated products, unilateral effects in markets characterized by an auction system for determining prices, in markets with undifferentiated products and unilateral effects caused by a restriction of choice or expenditure in R&D.

First, starting from industries with differentiated products, the degree to which the merged entity can lessen competition is positively and directly related to the degree of substitutability of the goods. For example, the merged entity can significantly raise prices above the pre-merger level for one of the products and make it profitable by catching the increase in sales of the substitute good to which the consumers switch. This operation can be extremely costly for the firm if, for an exogenous cause, the consumers rely on a third option. The Agencies should then be extremely cautious and rely on as much data as possible to reasonably argue the extent of direct competition between two or more goods. Since most of this data is used when assessing the HMT, because they both are based on demand substitution, it appears even more evident the prementioned relationship. Secondly, the markets characterised by price negotiation between buyers and sellers are recognized to deserve a formal bargaining model to quantify the effects. This is due to the facts that the possible merger between competing sellers obstacles the buyers from shorting the sellers off in the arrangements and therefor intrinsically reducing competition and putting an upward push to prices. Thirdly, the HMG have detailed out their evaluation of the way in which the increased prices in the "but for world"[13] might decrease the output post-merger. The four most common factors being: the littleness of the margin on the suppressed good, the responses of rivals, the shallowness of the demand elasticity, firm's market share. Fourthly, the last added section discusses the non-price effects such as the reduction of innovation and product variety, showing the progressive dismissal of the traditional economic thinking to reach a new strand of thought.

[12] Oldale, Schrag, and Taylor, 'The 2010 Horizontal Merger Guidelines at Ten: A View from the FTC's Bureau of Economics'.
[13] Justine S. Hastings and Michael A. Williams, 'What is a "But-For World"', *Antitrust*, Fall 2016.

In section 7 of the HMG, the coordinated effects are discussed as the Agencies acknowledge that an interaction between firms can cause severe harm to consumers. The ways in which these effects can raise, according to the guidelines are three: through an explicit negotiation on the behaviour to keep among some or all the firms in a relevant market, from a common understanding which does not require direct communication and in alternative through a parallel accommodating conduct. The parallel conduct addressed might occur also when each firm responds rationally to the competitors moves but still makes it possible for prices to increase and to threat the competitive restraints.

Finally, in section 10, the Guidelines deal with the efficiencies. As previously mentioned, efficiencies refer to potential cost savings, improved product quality, or technological advancements that may result from a merger and benefit consumers. The FTC considers efficiencies to be intrinsically generated by competition, and that a merger could mostly act as a beneficial boost to their magnitude and significance. The two main conditions under which these efficiencies are acknowledged during the review are: merger-specificity and recognizability. If a claimed efficiency could arise even without the merger, this would not been taken into consideration from the Agencies. The FTC also recognizes the challenges of a proper identification of these efficiencies and therefore it requires the merging parties to demonstrate and provide the supporting data to illustrate the undeniability of their claims. To add, the guidelines stress the relevance of considering efficiencies alongside the potential anticompetitive outcomes but holding extremely firm the principle that no matter how great the efficiency, no merger to monopoly shall be accepted.

2.4 Limits emerged from the literature and possible suggestions for improvement

While many economists consider these guidelines to provide a valuable guidance to the business community and do extensively illustrate the proceedings of the Commission during the merger analysis (Oldale, Scharg, Taylor 2021)[14], they have been subject to criticism by many other experts.

Firstly, the guidelines fail to fully address the issue concerning the identification of the relevant market, and they do not point out to how the Agencies might solve the issues known as

[14] Oldale, Schrag, and Taylor, 'The 2010 Horizontal Merger Guidelines at Ten: A View from the FTC's Bureau of Economics'.

Cellophane fallacy or similarly Merger Guidelines fallacy (Sabbatini 2001)[15]. Since they are mostly considered to be identical, we can focus just on the most known cellophane fallacy. This fallacy was firstly noticed during the notorious United States v. E. I. du Pont de Nemours & Co., 351 U.S. 377 (1956) case, in which the District Court during the performance of the HMT test, failed to detect the monopolistic position held by the company and this led to a too broad market definition. The Court used the current prices as a starting point for the test and thus the increase in price would inevitably result as non-profitable because that price was already the price given by the monopolist maximization function. Because of the enlargement of the market, the following analysis on market shares and market concentration are heavily compromised as well as the evaluation made upon the intensity of the non-competitive effects that would arise. This fallacy is partially address through the implementation of the CLA, since a high markup indicates that the firms already take advantage of market power, hence highlighting the possible cellophane fallacy. The CLA also suffers some inefficiencies because it assumes that the elasticity and the firm's margin are independent, without sufficient evidence to this assumption.

Secondly, a progressive weakening of merger control can be observed, with possibly devastating harms to consumer in an economy ruled by mega firms. The data from the Ten-Year Workload Statistics Report FY 2010-2019 suggests that it is improbable that a proposal will lead to a further investigation or to a civil complaint. In fact, out of the 2091 notifications under the HSR requirements, only 64 were then investigated, which amount to just over 3%, and 11 of them were filed to a district court. From Figure 2.2 it can be inferred specifically this, that the progressive growth in the number of files received is not tied with a proportional growth in the number of investigations. Leaving a great number of mergers to be consumed contradicts the *predictive exercise* (Shapiro 2019)[16] of merger control because it fails to identify the SLC before the agreement is settled. One of the reasons behind the significant reduction of mergers being challenged could be attributed to the discrepancy of knowledge between the DOJ or FTC and the district judge, making it much harder for the offense parties to win the cases. Nowadays many advanced econometric tools are implemented such as merger simulation or fancy models by the agencies, which however occasionally produce counterintuitive results. Consequently, the judges rely mostly on the traditional tools such as market definition, which face a double

[15] Pierluigi Sabbatini, 'The Cellophane and Merger Guidelines Fallacies Again', 2 June 2001, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=271113.
[16] Carl Shapiro, 'Protecting Competition in the American Economy: Merger Control, Tech Titans, Labor Markets', *Protecting Competition in the American Economy: Merger Control, Tech Titans, Labor Markets*, Summer 2019.

problem: the fallacies illustrated before and the fact that the trigger level of concentration above which a merger should be blocked have risen decade after decade.

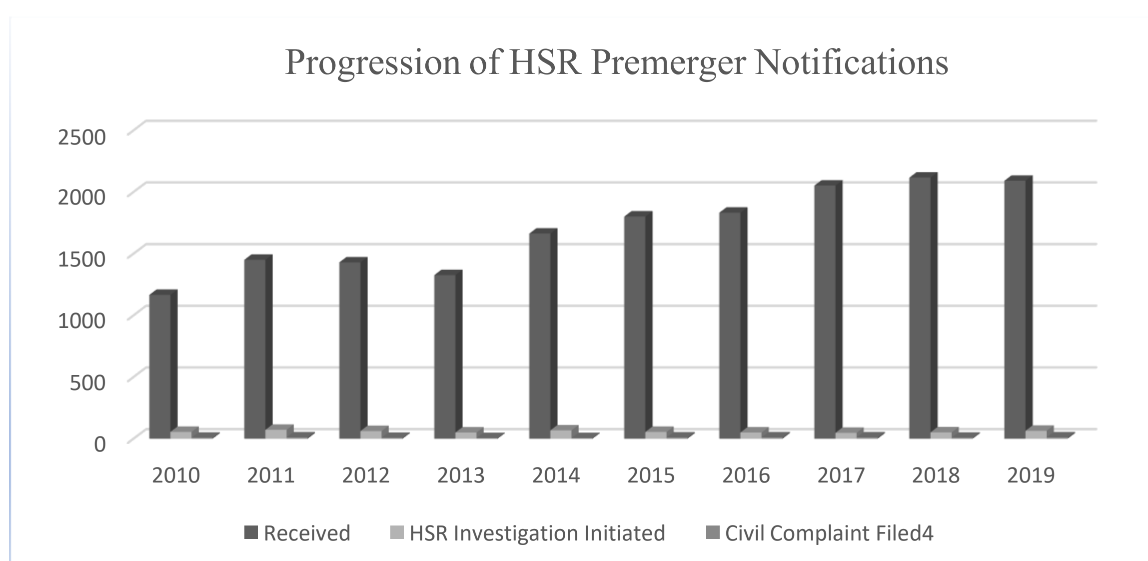

Figure 2.2

Thirdly, as illustrated by Markovits (2023)[17], the treatment of the efficiencies is widely ineffective because it suffers of two misconceptions. The first being that it does not consider the post-merger alterations put in place by the companies, for example the level of resources invested in R&D might not stand at or above the sum of the R&D expenditures of the firms pre-merger. This has a direct impact on the evaluation of the magnitude of the efficiencies. Secondly, the guidelines believe there is an inverse relationship between the positive variation of the "Pareto-imperfectness of the economy" and the variation in the general economic efficiency. This assumption contradicts the General Theory of Second Best (Lipsey, Lancaster, 1956)[18], and the guidelines should recall that in an efficient economy there is an ambiguous effect on the formation of inefficiencies from the single Pareto-imperfections.

Some solutions to reinforce the merger control and restore its purpose can be by leaving the effort of counter arguing the definition of the relevant market placed by the government authorities to the firms, which must provide new significant evidence. In addition, more scepticism shall arise when the proposing parties in a merger involve a leading firm acquiring an emerging firm in a significantly close market. So, more effort on analysing the substitutability between products shall be made to detect ex-ante possible new entrants which

[17] R.S. Markovits, 'Thirteen Sets of Observations/Recommendations Pertinent to the Revision of the DOJ/FTC (M&A) Guidelines', *Antitrust Bulletin* 68, no. 2 (2023): 318–58, https://doi.org/10.1177/0003603X231162997.
[18] R. G. Lipsey and Kelvin Lancaster, 'The General Theory of Second Best', *The Review of Economic Studies* 24, no. 1 (1956): 11–32, https://doi.org/10.2307/2296233.

can restore competition. In general, greater funds, both capital and human, should be allocated to the DOJ and FTC to make it possible for these agencies to better scrutinize a larger number of proposals.

Finally, the underlying assumption, which should be progressively abandoned, made in the guidelines is that all mergers are desirable and beneficial to the firms, and that there is a positive relationship between the dimension of the merging parties and the scale of the non-competitive effects which are generated. But this has been proved to be non-factual both by the data (Carstensen 2018)[19] and by the Cournot model illustrated before.

[19] Peter C Carstensen, 'Merger Guidelines and the Limits of Our Understanding', *Review of Industrial Organization.* 53, no. 3 (November 2018): 477–506.

CHAPTER 3 – THE EUROPEAN APPROACH: AN OVERLOOK UPON THE EC MERGER REGULATION AND THE EC GUIDELINES

3.1. Introduction to the laws on European Merger Control

In this last chapter, lets now focus on the European protocol to treat horizontal mergers. It is worth noting that while the American legislators could benefit of an already integrated economy, the Europeans one must maintain the ongoing integration of the national economies, ensuring a fair competition alongside with the market enlargement. The framework is designed therefore to create an economic environment in which firms can prosper and potentially merge through the progressive dismantlement of the boundaries, under the condition that they neither create nor strengthen a dominant position.

As anticipated in Chapter 1, there are two main piece of legislation which we must consider: the Council Regulation No 139/2004 (also named the EC Merger Regulation) and the Guidelines on the assessment of horizontal mergers […] (2004/C of 31/03). In addition, there are some associated laws such as the Commission Notice on the definition of relevant market […] (97/C 372/03) and the recent 'Support study accompanying the evaluation of the Commission Notice on the definition of relevant market […]'. The first noticeable difference with the American approach can be inferred by the number of documents and laws which must be considered in contrast to the practical use of HMG of the FTC and DoJ. They all fall into a regime made for reviewing those mergers that exceed specific thresholds and can be consider having a "Community dimension". These thresholds are stated in paragraph 2 of Article 2 of the Council Regulation and are triggered if either the sum of the turnover of the firms worldly produce exceeds €5 billion or minimum two out of the firms has a European turnover of over € 250 million. Alternatively, in the case in which the previous levels are not met, a transaction or "concentration" could be classified a possessing a "Community dimension" in other four cases according to paragraph 3 of the same article: when the joint worldwide turnover of the firms is over €2,5 billion; if in at least three Member States the combined turnover in above €100 million and the combined turnover of two or more companies is more than €25 million; two or more of the merging parties have a aggregate community turnover of more than € 100 million. Differently from the US there is no periodical adjustment of the mentioned criteria. Finally, the even lower in size mergers are subject to the competition authorities of the individual Member States in which the merger is going to be consumed.

Through the EC Merger Regulation, or ECMR, the European Commission is granted with the authority to entirely investigate mergers and to determine whether they should be approved unconditionally, or under the conditions of specific remedies or blocked. The procedures are divided into two phases. The first phase directly follows the notification and is the period in which around 90% of mergers are cleared because considered to be compatible with the market. The duration of this phase must not exceed 25 working days. Given the complexity or magnitude of some cases, a deeper investigation is opened in phase 2, where the commission is given an additional 90 working days to reach a final decision.

Since the major discussion on the content of the guidelines and the tools for market definition will follow in paragraph 3.2, I would still like to emphasise some other significant aspects of the EC Merger Regulation. In addition to the discussed concentration definition and criteria, this law is fundamental because it makes the notification requirement mandatory if the prementioned levels are passed, and it defines the method used to compute the turnover. Turnover is considered as the total of the sales of products or services of the companies in the financial year, deducing from this amount the discounts and the related taxes (Article 5 of Council Regulation No.39/2004). Then in Article 8 the powers of the Commissions are displayed. Of particular interest is paragraph 4, in which it is stated that the commissioners might oblige the merging parties to divest some, or all the assets contained in the transaction. To add, the law allows the commissioners to apply "any other measure" coherent with the restoration of the competition level prior to the proposal. These are commonly addressed as the possible "remedies" used to balance the change in the market. The same remedies could be proposed by the merging firms to ensure the allowance of the transaction. Nevertheless, the concentration of all the power into the hands of the commissioners significantly differs from the methodology seen in the USA, where the final decision is made only by a judge. The reason of this can possibly be attributed to the fact that the European Union is a relatively recent institution, and it did not possess the similar supra-national (or federal) structure present in the US. The regulation, and in general the review process has to ensure a full and complete scrutiny both at a national and cross-border prospective.

3.2 Techniques used in merger review in comparison with the American approach

As previously discussed, most of the procedures in the merger assessment in the EU can be found in the "Guidelines on the assessment of horizontal mergers […]". They are intended to be a guidance to the methods uses since the same Commission points out that each investigation

should be conducted with a case-by-case approach (Article 1 comma 5). Resuming by the ECMR, the guidelines are created to investigate all those scenarios in which a 'significant impede of effective competition' because of the capitalization of a potential dominant position occurs. This dominant position is supposed to possibly be generated or reinforced by a merger, causing the reduction of the beneficial effects normally associated with competition. The investigation is therefore centred on the comparison of the competitive conditions ex-post and ex-ante the merger. This is mostly conducted by proceeding in two sequential steps: defining the relevant market and a competitive assessment.

With even greater importance to what present in the HMG, market definition plays a fundamental role in the European way. The Commission does not consider to only conduct the competitive assessment, and it gives to market definition the duty to define in a methodological way the boundaries of the market in which the merging parties compete. As anticipated, the extended and detailed document used to enforce competition law is the "Commission Notice on the definition of relevant market for the purposes of Community competition law (97/C 372/03)". In this notice, as well as the fact that a market can be define both on a product and geographic way, it is highlighted how there are basically three competitive constraints: demand and supply substitutability, and potential competition. Since an analysis conducted on the last two elements is far more resource and time-consuming, the demand side is the predominant constraint considered. As a proof of this, the principal tool used is the SSNIP test, which relies heavily on it (see paragraph 2.2).

Differently from the HMG, the categorisation of the type of evidence used is found in Section 3 of this notice. The treatment of the evidence resulting from experience and real data is open, and it does not follow into a strict order of importance, allowing a space in which the commissioners can manoeuvre. To be noted is the fact that all of them are related to demand substitution, for example the commissioners look if latest changes in consumers perceptions and preferences has happened in the pre-merger period and if there are any kind of barriers and obstacles which lead to potential high switching costs, affecting the consumers' choice. Despite this freedom, the commissioners observe that once they possess the information provided by the firms and some additional preliminary one, they are confident enough that a small spectrum of potentially relevant market can already be developed. Similarly for the geographic market, an initial vague control of the distribution of markets shares and differentiated prices across the European Economic Area (EEA) will be made, and if necessary, a deeper exploration will be

done. In addition to the study of the demand, for assessing the geographic market, the commissioners might also rely on the analysis of the current geographic patterns of purchases and the common trade flows, as well as some switching costs or barriers that might limit the sales of the companies. An example could be some additional transportation cost or some legislations that limit the import or export of specific goods.

Once the market is defined, as for the HMG approach, the Commission follow their assessment through the calculation of the market shares and grasp a general overview of the type of concentration. These shares are normally used to study the current situation, and if an ex-post consideration has to be made, the commissioners most likely just add up the correspondent shares. The guidelines still alert that changes in the market structure due to the merger could still occur and significantly affect the values. This is also extremely relevant to point out since the guidelines also refer to the use of the HHI index as a tool to observe fluctuations in the concentration. Differently from the HMG, there is not an explicit listing of the type of markets, instead the guidelines simply advise that any transaction whose post-merger index is under 2000 and ΔHHI under 250 is improbable to rise anticompetitive concerns.

Then in Section 4 the guidelines delve into the comprehensive methodology used for the evaluation of the of the possible anti-competitive effects. The terminology changes slightly from unilateral effects to simply non-coordinated and coordinated effects. The first ones are supposed to be consequential from the removal of one or more a competitive constraint, and therefore enlarging a dominant position, whereas the second one is due to the increased likelihood of facilitating collusion. Moreover, the non-coordinated effects are observed through the loss in competition between the rival companies and by the general increase of prices also made accessible to the non-merged firms which can capitalize on the sale lost by the merged entity. The guidelines declare that any merger that produces these effects shall be classified as incompatible. To further conduct this assessment, the commissioners can be influenced by other factors such as: the amount of market share hold, the closeness of the merging parties' outputs in terms of substitutability, the difficultness for the customers to change the supplier and the restrictions imposed to the growth of the smaller competitors such as new entrants.

As for coordinated effects, the guidelines point out how they might manifest in different forms, for example as simply putting an upper pressure to prices, or by restricting the aggregate level of output or by geographically segmenting the market as if they were on a cartel. The variables

considered to be necessary for coordination's sustainability are: the simplicity and stability of the market which enables the firms to reach an agreement; the seriousness of deviation control, since this must be credible and must be effectively maintained; the reactions of outsiders that could take advantage of the coordinated strategies by cutting them off. Despite their treatment, some studies (Bergman et al. 2010)[20] have shown that in practice the commissioners tend to be less keen on using these theories about coordination than their counterparts in the US.

Finally, the treatment of the efficiencies can be found in section 7. The commission recognises their possibility to restore the market's competitiveness, but they need to possess three characteristics, mutually important and cumulative: they must bring a benefit to consumers, must be generated specifically from the merger and must be verifiable. As a corollary to the pass-on to consumers requirement, the guidelines add the time dimension, meaning that those efficiencies who will appear closer in time will be awarded with a major weight and relevance than ones that will manifest later on. As in the HMG, it is made clear that it is almost impossible that there will be any type of efficiency able to mitigate the effects of a merger to monopoly or to a similar condition. Regarding the merger-specificity and verifiability condition, it is also made mandatory for the firms to produce within the deadlines all the required documentation that can argue in their favour, leaving to the commissioners the only task to evaluate them.

3.3 Critiques and remedies emerged from the literature

While numerous economists view these guidelines as a massive step forward from the previous version of 1989 in elucidating the European approach to merger analysis, they have encountered criticism from a variety of other experts. In the subsequent paragraph, I will outline the most prominent critics that have arisen.

Although there have been studies (Bergman et al., 2010)[21] arguing that the European approach to mergers is characterized by a more aggressive connotation than the one used in the US, the adoption of the more economic oriented system has shown to be more ineffective in challenging more serious mergers (Bartalevich 2017)[22]. In the previous merger protocol, the main role was played by the "dominance test", a theoretical concept taken from the german competition law.

[20] Mats A Bergman et al., 'Comparing Merger Policies in the European Union and the United States', *Review of Industrial Organization.* 36, no. 4 (June 2010): 305–31.
[21] Bergman et al.
[22] Dzmitry Bartalevich, 'EU Competition Policy and U.S. Antitrust: A Comparative Analysis', *European Journal of Law and Economics.* 44, no. 1 (August 2017): 91–112.

The current one instead makes use of the “significant impediment to competition test” (SIEC) which hints at a convergence between the two approaches. It is worth noticing that if we compare exclusively the number of mergers which were prohibited under the two tests, we can notice a surprising reduction in mergers blocked with the SIEC test. In fact, as shown by the ‘Statistics on Merger Cases’[23], between 1990 and 2004, from 2597 notifications received there have been 19 prohibitions, whereas between 2005 and 2022, out of 6141 notifications only 13 mergers did not receive any approval. It comes to no surprise that it makes the headlines when such measures are taken, for example as it has been for the Siemens proposed acquisition of Alstom[24] and the Wieland’s proposal to acquire and Aurubis Rolled Products[25] in February 2019. In both cases the Commission was worried that the post-merger scenario would have led to serious competition problems, meaning higher prices, lower innovation, and less choice. However, the literature (Kostecka-Jurczyk, 2022)[26] confirms that all these concerns are tough to assess ex-ante since they are mostly conducted though a qualitative approach. As mentioned throughout this paper, theoretically we can state with certainty that a merger always leads to rise of prices, but it is not as certain the claim that after a price increase, competition is distorted. The turning point might be to give a greater relevance to the connections between the players in the market. In other words, a simulation on the possible response of the competitors should be considered, since this can suggest if competition will truly be affected or not.

In addition to the imperfection of the SIEC test, a second issue that threatens the quality of outcome of the merger assessment is market definition. As well as the fallacies described above in paragraph 2.4, some authors (Röller 2011)[27] claim that it is a heavily bias tool. Since it is based only on demand-side factors, it tends to produce a narrow market definition. The problem is that if the supply-side factors are considered, the market definition then is mostly too wide, which just makes it a pointless tool to use as a screening device. To role played by these factors have been discussed in the Support study of the Commission Notice […] in which it is debated on whether if these shall be considered or not. In the end, it is suggested that they might become

[23] European Commission, ‘Merger Cases Statistics’, competition-policy.ec.europa.eu, 31 July 2023, https://competition-policy.ec.europa.eu/mergers/statistics_en.
[24] Case M.8677 - SIEMENS/ALSTOM, Article 8 (3) Regulation (EC) 139/2004 (European Commision 2019).
[25] CASE M.8900 - WIELAND / AURUBIS ROLLED PRODUCTS / SCHWERMETALL, Article 8(3) Regulation (EC) 139/2004 (European Commision 2019).
[26] Daria Kostecka-Jurczyk, ‘Significant Impediment of Effective Competition – an Old Tool and Unresolved Doubts’ (EU ANTITRUST: HOT TOPICS & NEXT STEPS, Faculty of Law of the Charles University nám. Curieových 901/7 116 40 Praha 1 Czech Republic: Václav Šmejkal, 2022), 604, https://rozkotova.cld.bz/EU-ANTITRUST-2022.
[27] L.-H. Röller, ‘Challenges in EU Competition Policy’, *Empirica* 38, no. 3 (2011): 287–314, https://doi.org/10.1007/s10663-010-9164-x.

more useful if considered occasionally only for the product market and not the geographic market. Moreover, in the Support study it is also exposed the modern problem that could occur in those markets in which the price is zero or tends to it. This is quite a big problem, especially in the long run, with the constant expansion of digitalization. As it can easily be imagined it is impossible to apply the SSNIP test to these contexts, and as an alternative to it the study advises two solutions: the Small but Significant Non-transitory Decrease in Quality (SSNDQ) and the Small but Significant Non-transitory Increase in Costs (SSNIC). These tools appear to solve the issue quite well on paper, but as recognized by the commission, they are extremely impractical and therefore other ones should be fabricated.

Finally, the last issue I will address is the treatment of the efficiencies. As Röller[28] points out, the evidence demonstrates that they still do not play a predominant role in the final judgements. There is also not enough consideration of the presence of possible “dynamic efficiencies”, which the author defines as the ones generated from fixed costs reductions and higher R&D expenditures, as opposed to the “static efficiencies” which are due to lower variable costs. As a solution to this problem, it is highly recommended that the Commission make some huge step towards their inclusion in the assessment.

Total words used (except for Frontispiece, Table of contents, References and Bibliography):
9927

[28] Röller.

REGULATORY REFERENCES

- Clayton Act, Oct. 15, 1914, ch.323, § 1, Sept. 30, 1976, Nov. 2, 2002.
- Commission Notice on the definition of relevant market for the purposes of Community competition law (97/C 372 /03), 9 December 1997,
- Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation), 29 January 2004
- For the 2023 HSR Thresholds: https://www.federalregister.gov/documents/2023/01/26/2023-01533/revised-jurisdictional-thresholds (view on the 20/08/2023)
- For the Ten-Year Workload Statistics Report: https://www.justice.gov/atr/division-operations (view on the 12/08/2023)
- Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (2004/C 31/03), 5 February2004
- Hart-Scott-Rodino Antitrust Improvements Act of 1976, Sept. 1976,15 U.S. Code §18 https://www.govinfo.gov/content/pkg/STATUTE-90/pdf/STATUTE-90-Pg1383.pdf (view on the 22/08/2023)
- Scherman Act, July 2, 1890, ch.647, § 1; Aug. 17, 1937, ch.690, title VIII, July 7, 1955, ch.281, Dec. 21, 1974, Dec. 12, 1975, Nov. 16, 1990, June 22, 2004.
- Standard Oil Co. of New Jersey v. United States, 221 U.S. 1 (1911)
- Support study accompanying the Commission Notice on the evaluation of the definition of relevant market for the purposes of Community competition law, 1 June 2021, https://competition-policy.ec.europa.eu/system/files/2021-06/kd0221712enn_market_definition_notice_2021_1.pdf
- The Federal Trade Commission Act, 1914, 15 U.S.C. §§ 41-58, https://www.ftc.gov/sites/default/files/documents/statutes/federal-trade-commission-act/ftc_act_incorporatingus_safe_web_act.pdf (view on the 22/08/2023)
- Trattato che istituisce la Comunità Economica Europea, Roma 25 Marzo 1957
- Trattato istitutivo della Comunità Europea del Carbone e dell'Acciaio, Parigi 18 Aprile 1951
- U.S. Department of Justice and Federal Trade Commission, 'Horizontal Mergers Guidelines - USA' (2010)
- United States v. E. I. du Pont de Nemours & Co., 351 U.S. 377 (1956) https://tile.loc.gov/storage-

services/service/ll/usrep/usrep351/usrep351377/usrep351377.pdf (view on the 22/08/2023)

BIBLIOGRAPHY

Bartalevich, Dzmitry. ‘EU Competition Policy and U.S. Antitrust: A Comparative Analysis’. *European Journal of Law and Economics.* 44, no. 1 (August 2017): 91–112.

Bergman, Mats A, Malcolm B Coate, Maria Jakobsson, and Shawn W Ulrick. ‘Comparing Merger Policies in the European Union and the United States’. *Review of Industrial Organization.* 36, no. 4 (June 2010): 305–31.

Capron, Laurence. ‘Historical Analysis of Three Waves of Mergers and Acquisitions in the U.S. (1887-1904, 1916, 1916-1929, 1950-1970): Triggering Factors, Motivations and Performance’. Cincinnati, OH: Management History division, 1996. https://www.insead.edu/sites/default/files/assets/faculty-personal-site/laurence-capron/documents/historical-analysis-of-three-waves-of-mergers.pdf.

Carstensen, Peter C. ‘Merger Guidelines and the Limits of Our Understanding’. *Review of Industrial Organization.* 53, no. 3 (November 2018): 477–506.

Case M.8677 - SIEMENS/ALSTOM, Article 8 (3) Regulation (EC) 139/2004 (European Commision 2019).

CASE M.8900 - WIELAND / AURUBIS ROLLED PRODUCTS / SCHWERMETALL, Article 8(3) Regulation (EC) 139/2004 (European Commision 2019).

Charpin, Ariane, and Joanna Piechucka. ‘Merger Efficiency Gains: Evidence from a Large Transport Merger in France’. *International Journal of Industrial Organization* 77 (January 2020).

Dalkir, Serdar, John Logan, and Robert Masson. ‘Mergers in Symmetric and Asymmetric Noncooperative Auction Markets: The Effects on Prices and Efficiency’, May 1998.

Davis, Peter, and Eliana Garcés. *Quantitative Techniques for Competition and Antitrust Analysis*. Princeton University Press, 2010. http://www.jstor.org/stable/j.ctt7sqz9.

European Commission. ‘Merger Cases Statistics’. competition-policy.ec.europa.eu, 31 July 2023. https://competition-policy.ec.europa.eu/mergers/statistics_en.

Kaplow, Louis. ‘Horizontal Merger Analysis’. *International Journal of Industrial Organization* 79 (1 December 2021): 102714. https://doi.org/10.1016/j.ijindorg.2021.102714.

Kostecka-Jurczyk, Daria. ‘Significant Impediment of Effective Competition – an Old Tool and Unresolved Doubts’, 604. Faculty of Law of the Charles University nám. Curieových 901/7 116 40 Praha 1 Czech Republic: Václav Šmejkal, 2022. https://rozkotova.cld.bz/EU-ANTITRUST-2022.

Lipsey, R. G., and Kelvin Lancaster. ‘The General Theory of Second Best’. *The Review of Economic Studies* 24, no. 1 (1956): 11–32. https://doi.org/10.2307/2296233.

Lofaro, Andrea, Daniel Gore, Frances Dethmers, and Stephen Lewis, eds. ‘Horizontal Mergers I: Unilateral Effects’. In *The Economic Assessment of Mergers under European Competition Law*, 148–317. Cambridge: Cambridge University Press, 2013. https://doi.org/10.1017/CBO9781139022002.005.

Markovits, R.S. ‘Thirteen Sets of Observations/Recommendations Pertinent to the Revision of the DOJ/FTC (M&A) Guidelines’. *Antitrust Bulletin* 68, no. 2 (2023): 318–58. https://doi.org/10.1177/0003603X231162997.

Motta, Massimo. ‘Horizontal Mergers’. In *Competition Policy: Theory and Practice*, 231–301. Cambridge University Press, 2004.

Oldale, Alison, Joel Schrag, and Christopher Taylor. ‘The 2010 Horizontal Merger Guidelines at Ten: A View from the FTC’s Bureau of Economics’. *Review of Industrial Organization* 58, no. 1 (1 February 2021): 33–50. https://doi.org/10.1007/s11151-020-09800-z.

Röller, L.-H. ‘Challenges in EU Competition Policy’. *Empirica* 38, no. 3 (2011): 287–314. https://doi.org/10.1007/s10663-010-9164-x.

S. Hastings, Justine, and Michael A. Williams. ‘What is a “But-For World”’. *Antitrust*, Fall 2016.

Sabbatini, Pierluigi. ‘The Cellophane and Merger Guidelines Fallacies Again’, 2 June 2001. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=271113.

Salant, Stephen W., Sheldon Switzer, and Robert J. Reynolds. ‘Losses From Horizontal Merger: The Effects of an Exogenous Change in Industry Structure on Cournot-Nash Equilibrium’. *The Quarterly Journal of Economics* 98, no. 2 (1 May 1983): 185–99. https://doi.org/10.2307/1885620.

Shapiro, Carl. ‘Protecting Competition in the American Economy: Merger Control, Tech Titans, Labor Markets’. *Protecting Competition in the American Economy: Merger Control, Tech Titans, Labor Markets*, Summer 2019.

U.S. Department of Justice and Federal Trade Commission. Horizontal Mergers Guidelines - USA (2010).