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A critical review of the literature on mergers remedies in the energy industry: the case of structural remedies and its effectiveness under the framework of EU competition policy.

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Abbreviations

MS	Member States
NCA	National Competition Authority
EC	European Commission
ECJ	European Court of Justice
CFI	Court of First Instance
VPP	Virtual Power Plant
PPA	Power Purchase Agreement

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Introduction

Looking at the very origins of the EU Competition policy, a researcher easily identifies the constant need of rule-maker to frame the establishment and the subsequent enforcement of antitrust rules within a broadly acceptable legitimate framework. Reasons including inter alia the consumers' welfare, the fair and equal conditions for businesses, and the protection of competition in the internal market constitute some of the regulatory bases that have been invoked when a discussion about the purpose of these legal norms emerges.

This dissertation choices to focus on one of the most complex and challenging markets in the EU. That being said, the internal energy market presents some unique characteristics and functions. Particularly, some of the challenges the EU faces in the field of energy include increasing import dependency, restricted diversification, high and volatile energy prices, rising global energy demand, security risks leading to problems for producing and transit countries, the increasing threats of climate change, decarbonization and the slow development in energy efficiency. At the same time, other challenges come to play, such as the increasing share of renewables and the essential enhanced transparency, additional integration, and interconnection in energy markets. Thus, energy policy and law constitute an emerging, interdisciplinary and deep topic of research in multiple sectors, including environmental and economic research.

Several measures are in place to achieve the objective of an integrated energy market, security of energy supply, and a sustainable energy sector, as the core values of the EU's energy policy. Consequently, the EC efforts are oriented towards a complete reformation of this sector of the economy aims to a single, competitive, European energy market.

The regulatory regime of the Union in achieving a single internal energy market consists of several legislative packages. The internal energy market legislation was first introduced in the Third Energy Package (2009-2014), referring to five domains: unbundling; national independent regulators; cooperation; ACER; and fair retail markets. In the package were included, inter alia, the Regulation (EU) No 1227/2011 on wholesale energy market integrity and transparency, and the Trans-European Networks for Energy (TEN-E) policy, founded on Regulation (EU) No 347/2013 on guidelines for trans-European energy infrastructure.

Competition in the energy sector, being another regulatory tool for achieving the above goals, reflects a major part in many recent studies on the matter. In the majority of EU MS until the

1990s, the energy sector (mainly electricity, natural gas, oil) was integrated and state-owned under a vertical market structure. It is worth mentioning that there are currently several concerns concerning specific domains of competition within the energy industry, such as the competition in the market of natural gas.[1]

Reacting to this desired status quo, as it was analyzed above, market players in the energy industry started finding ways to maintain or enhance its well-established economic position. One of these financial techniques was the well-known decisions to merge taken by firms operating in the sector.

Upon that moment, EC actively began taking regulatory actions to tackle the increasing number of mergers in the energy market, raising important questions as to what extent these measures can constitute one of the important safety valves need to reassure the undisrupted functioning free competition in the EU internal energy market, which is crucial to guarantee a fully integrated and well-functioning internal energy market in affordable energy prices, whereas offering the essential price signals for investments in green energy, secures energy supplies and providing the necessary conditions for climate neutrality.

The objective of this dissertation is to investigate the effectiveness of merger remedies imposed by the EC, emphasizing the key elements of the decisions from the perspective of legal and economic analysis, trying to compare the various approaches taken by this specific EU institution. The central purpose of the present dissertation is to examine whether the EU mergers remedial framework utilized effectively by the European regulator as a policy tool for pursuing their wider competition goals. Our analysis expects to throw some reassuring light through the experiences with merger approvals and remedies imposed thereafter by the EC, in collaboration with merging entities. The objective of the study is to review with the benefit of hindsight the design and implementation of remedies adopted by the EC in previous cases, to identify areas where further improvements to the EC's existing merger remedies policy and procedures may be necessary for the future.

To this end, the present thesis conducted an ex-post evaluation of the design and implementation of a sufficiently representative number of remedies accepted in merger cases. The focus of the dissertation is identified on what factors or type of remedies may have positively or negatively influenced the effective design and implementation of merger remedies.

[1] See further on this specific sector, D. Hulshof, et al., "Market fundamentals, competition and natural-gas prices", *(2016) 94 Energy Policy 480-491.*

Lastly, several proposals and critical observations are made in connection with the aforementioned issues, under the overall purpose of enhancing the effectiveness of remedies imposed in maintaining competition in the internal market, while reaching newly established considerations and goals.

The rest of this paper is organized as follows: Section A, critically discusses the mechanism of the merger remedies in the EU competition law regime, presenting the merger control procedures under the auspices of the EU and emphasizing the cases of well-known energy mergers. Section B provides insights into several important energy merger remedies cases at the EU level, while Section C offers some critical observations on the enforcement and implementation mechanisms of merger remedies, drawing several proposals for further improvements and alterations to achieve the best possible outcome in accepting potential mergers in the energy sector with EU dimension. Section D concludes the dissertation.

Chapter 1

1. Why do firms merge?

Exploring the possible answers to the above critical question,[2] a researcher can identify several reasons which explain the adoption of this specific strategic decision by firms. Although the outcome of mergers varies from beneficial to, sometimes at least not harmful, for the economy, with several cases being categorized as problematic,[3] it is undoubted that mergers in oligopolistic markets are legally characterized as anticompetitive.[4] Nevertheless, taking a social or consumer perspective on the matter of merger synergies, a merger can be considered desirable,[5] while different effects of M&A are identified in the various energy sectors.[6]

The EC has examined many important energy mergers since late 2004, including the national markets of various MS (inter alia Portugal, Hungary, Belgium, the United Kingdom, and Germany). In late 2004, the mergers of EDP/ENI/GDP were prohibited by a decision taken accordingly from the EC,[7] being upheld at a later stage by the European Court of First Instance. In addition to this, three other cases (E.ON/MOL,[8] DONG/Elsam/E2,[9] and GDF/Suez[10]) were all approved after remedies imposed during comprehensive Phase II investigations. Lastly, four

[2] See Hamner, "The Globalisation of Law: International Merger Control and competition law in the United States, the European Union, Latin America and China" (2002), *11 (2) Journal of Transnational Law and Policy 385*.
[3] R. Whish, D. Bailey, *Competition Law* (7th edn., Oxford University Press, 2012), p.813.
[4] M. Dertwinkel-Kalt, C. Wey, "Structural Remedies as a Signalling Device" (2016), *35 Information Economics and Policy 1*, p. 1.
[5] M. Dertwinkel-Kalt, C. Wey, "Structural Remedies as a Signalling Device" (2016), *35 Information Economics and Policy 1*, p. 1: "If synergies are rather weak, remedies may be offered by the merging parties to effectively protect competition and to remove any competition concern the Antitrust Agencies (AA) may have.".
[6] K. Yoo, Y. Lee, E. Heo, "Economic effects by merger and acquisition types in the renewable energy sector: An event study approach" (2013), *26 Renewable and Sustainable Energy Reviews 694*.
[7] Commission Decision of 9 December 2004 Declaring a Concentration Incompatible with the Common Market Pursuant to Article 8(3) of the Council Regulation (EEC) No 4064/89 (Merger Regulation (ECMR)) (Case No COMP/M.3440 – EDP/ENI/GDP).
[8] Case COMP/M.3696, E.ON/MOL.
[9] Case COMP/M.3868, DONG/Elsam/Energi E2.
[10] Case COMP/M.4180, Gaz de France/Suez.

cases (including EDF/British Energy,[11] RWE/Essent,[12] Vattenfall/Nuon,[13] and EDF/Segebel[14]) were approved with remedies after Phase I investigations. In the next chapter of the present dissertation, the specific features, the competitive effects, and remedies of these eight transactions will be reviewed and analyzed.

Through an examination of the general motives of the companies in the energy industry to proceed to several M&A, various possible explanations can be found. First of all, this strategy can be interpreted as a reaction to the ongoing liberalization of the European energy market.[15] Besides, through the process of geographic and product activities range expansion during the period before the complete liberalization of the European market, European companies get prepared for likely broader competition emerging in the EU. The condition of a fully liberalized market and investments in infrastructures is the one that can lead to the creation of a single market, benefiting companies since they will expand their activities. Accordingly, a twofold advantage is noticed for the companies involved in M&A at the EU level: a stronger presence in the EU market and a lower portion of possible risks associated with the scenario that competitors will take over those companies. In this context, the unbundling of formerly integrated activities, CO2 emissions rights, and other measures, affecting the competition in the internal market, constitute a partial explanation of the augmented M&A transactions notified the last two decades.[16] For instance, Swedish Vattenfall was motivated to purchase the Dutch Nuon, to be able to obtain a critical size, with the purpose of handling required investments shortly.

[11] Case COMP/M.5224, EDF/British Energy.
[12] Case COMP/M.5467, RWE/Essent.
[13] Case COMP/M.5496, Vattenfall/Nuon Energy.
[14] Case COMP/M.5549, EDF/Segebel.
[15] O. Abzahd, P. Meyerson, U. Sahagún, "Determinants of Mergers and Acquisitions in the Energy Industry: Evidence from the European Market" (2009), Master Thesis, Lund University, p.9.
[16] O. Abzahd, P. Meyerson, U. Sahagún, "Determinants of Mergers and Acquisitions in the Energy Industry: Evidence from the European Market" (2009), Master Thesis, Lund University, p.9.

Importantly, the merger wave that hit the industry in the first decade of the 21st century was a result of economies of scale.[17] Adopting M&A as one of the business strategies within the energy sector several consequences are expected including inter alia synergy by economies of scale and scope or increased market power. According to recent research findings scale economies and vertical integration cost savings.[18]

Moreover, through M&A multiple geographic presences for merged entities are achieved, assisting them to have in their business arsenals the essential market forces to be able to face the consequences of a fully liberalized market,[19] what Verde (2008) called the phenomenon of "cross-border mergers". Although, a merger with cross-border elements and at the same time without horizontal sheathings could potentially limit competition. One example that indicates the complication of the changeable character of the energy market is the joint acquisition of Spanish Hidrocantabrico by French EdF and Portuguese EDP. The exporters EdF and EDP were incentivized to invest in the needed new interconnections for the isolated Spanish market. Therefore, as it was noticed by the EC, when the acquisition of Hidrocantabrico would be completed, a decrease in the incentives to invest in interconnections would be observed, since the two entities, EdF and EDP, would have the potentials of direct profits deriving from the comparatively high energy prices in the inaccessible Spanish electricity market.[20] Finally, the deal got the acceptance of the EC, while restricting possible investment movements the EdF might take in interconnections.[21]

[17] S. Verde, "Everybody merges with somebody—The wave of M&As in the energy industry and the EU merger policy" (2008)*, 36 Energy Policy 1125.*
[18] G. Fraquelli, M. Piacenza, D. Vannoni, "Cost Savings From Generation and Distribution with an Application to Italian Electric Utilities" (2005), *28 Journal of Regulatory Economics 289*.
[19] O. Abzahd, P. Meyerson, U. Sahagún, "Determinants of Mergers and Acquisitions in the Energy Industry: Evidence from the European Market" (2009), Master Thesis, Lund University, p.9.
[20] Case COMP/M.2684, EnBW/EDP/Cajastur/Hidrocantabrico.
[21] Case COMP/M.2684, EnBW/EDP/Cajastur/Hidrocantabrico.

Secondly, a further trend is recognized when the internal energy market was faced with the phenomenon of the creation of "national champions",[22] emerging from the enhanced protectionism in the energy sector.[23] This reasoning will be explained later in this dissertation when reference will be made to European cases where it could be indicated that national governments work with the purpose of the creation and the maintenance of these champions. When Suez generated a national champion through merging the state-owned GDF with Suez, the French government interfered. Several remedies were implemented in this case of a merger since under the conditions of smaller markers, a dominant position was formed.[24] Proceeding now to Spain, the relevant authorities of this country truly violated EC law, as it blocked the merger of Spanish Endesa with foreign suitors.[25] Despite the clear political dimension of this movement, the decision of the Spanish authorities may be understood in terms of securing the fundamental energy infrastructure of the country and preparing the ground for national companies in the globalized world.[26]

Another trend which could be identified, especially after 2003, is the activity of companies merging vertically.[27] Given what has been said, through electric generators the supply is secured via the process of merging with the energy source, which can sometimes be gas.[28] The

[22] O. Abzahd, P. Meyerson, U. Sahagún, "Determinants of Mergers and Acquisitions in the Energy Industry: Evidence from the European Market" (2009), Master Thesis, Lund University, p.9.
[23] S. Verde, "Everybody merges with somebody—The wave of M&As in the energy industry and the EU merger policy" (2008), *36 Energy Policy 1125*, p. 1128.
[24] Case COMP/M.4180, Gaz de France/Suez.
[25] S. Verde, "Everybody merges with somebody—The wave of M&As in the energy industry and the EU merger policy" (2008), *36 Energy Policy 1125*, p. 1128.
[26] S. Verde, "Everybody merges with somebody—The wave of M&As in the energy industry and the EU merger policy" (2008), *36 Energy Policy 1125*, p. 1128.
[27] O. Abzahd, P. Meyerson, U. Sahagún, "Determinants of Mergers and Acquisitions in the Energy Industry: Evidence from the European Market" (2009), Master Thesis, Lund University, p.10.
[28] S. Verde, "Everybody merges with somebody—The wave of M&As in the energy industry and the EU merger policy" (2008), *36 Energy Policy 1125.*

aforementioned trend echoes similar corporate activity detected in the USA in the 1990s when deregulations of gas and electricity were in place.[29]

It should be pointed out that M&A constitutes one of the major management strategies of firms in the energy industry. Indeed, among other sectors of this specific industry, in the renewable energy sector, a trend has been recognized in choosing this business strategy. Through the process of acquiring firms, the acquirers are enabled to enhance their competitiveness in the relevant market. Due to the continuously changing nature of renewable energy, M&A positively contributes to bringing sustainable growth and innovation.[30] In other words, *"[…] seeking external growth and enhancing the firm's value through M&A affect the growth not only of the firms involved but also of the entire sector"*.[31]

Another explanation for the major movement of takeovers in the energy sector is identified as the increase in cash liquidity of energy companies.[32] As a result, M&A has been fostered as an investment strategy by businesses in the EU, to take advantage of their additional liquidity, superseding other strategic choices, such as other general investments, transmission, or exploration activities.[33] This specific management strategy those companies adopted expresses efficiently short-term shareholders' interests. That being said, then this decision ignores the real needs of the industry and final customers, being characterized as the lowest-risk and lower-uncertainty business choice.

[29] S. Bergstrom, T. Callender, "Gas and power industries linking as regulation fades" (1996), *94 (33) Oil & Gas Journal 59*.
[30] See further Y. S. Choi, J. W. Kim, "A Study on the Merger of non-listing Firms" (2007), Kosdaq, Kasba Joint Conference.
[31] K. Yoo, Y. Lee, E. Heo, "Economic effects by merger and acquisition types in the renewable energy sector: An event study approach" (2013), available at https://eneken.ieej.or.jp/3rd_IAEE_Asia/pdf/paper/115p.pdf, p.2.
[32] S. Verde, "Everybody merges with somebody—The wave of M&As in the energy industry and the EU merger policy" (2008), *36 Energy Policy 1125,* p. 1126.
[33] S. Verde, "Everybody merges with somebody—The wave of M&As in the energy industry and the EU merger policy" (2008), *36 Energy Policy 1125,* p. 1126.

To sum up the current analysis on the reasons for M&A in the energy industry, some studies scrutinize accordingly the effects of M&A undertaken by companies in the energy industry. According to Wårell (2007), who proceeded to an analysis of a horizontal merger in the iron ore industry through a case of a merger between Rio Tinto and North Ltd, even though merger itself is important, the returns for the interested companies are not relatively important when compared to those of their competitors. Turning to the upstream oil industry, Choi and Song (2007) concluded that the outcome disagreed with the perception prevailing in the stock market that *"[m]ergers and acquisitions generally cause an increase in the stock price"* since this result was only supported in seven out of 13 cases under examination. Therefore, according to a large number of research findings, it can be said that M&A has an immaterial effect on the interested firms, even though M&A is a widely-used strategy.[34]

1.1. Mergers effects

Mergers can be used as an effective tool of potentially increasing product offerings, with the condition of synergies arising from asset complementarities.[35] It becomes therefore obvious why firms may be motivated to merge with firms that are equipped with different skills or technologies achieving to enhance their capability to introduce new products. Furthermore, acquirers may be worried about the need for the introduction of new products that can differentiate from existing rival firms. As a result, a possible tension may arise in mergers between a firm which are equipped with products that have similar characteristics and a firm that in its arsenal have skills or technologies which *"[…] are different enough from rivals to help differentiate the acquirer"*.[36]

[34] K. Yoo, Y. Lee, E. Heo, "Economic effects by merger and acquisition types in the renewable energy sector: An event study approach" (2013), *26 Renewable and Sustainable Energy Reviews 694*, p. 695.
[35] G. Hoberg, G. M. Phillips, "Product Market Synergies and Competition in Mergers and Acquisitions: a Text-Based Analysis" (2008), Working Paper 14289, available at http://www.nber.org/papers/w14289, p.1.
[36] G. Hoberg, G. M. Phillips, "Product Market Synergies and Competition in Mergers and Acquisitions: a Text-Based Analysis" (2008), Working Paper 14289, available at http://www.nber.org/papers/w14289.

Bearing in mind the aforementioned analysis, firms' decision to merge may be driven by the central reason of collaborating with partners which are equipped with complimentary assets, enabling them to enlarge the range of their products, employing new product introductions (facilitating them to differentiate their products from competitors).[37]

Under this perspective, when previously rival firms merge an increase in firms' market power can emerge, affecting both the firms involved and other competitors. Having said that, the next step of our analysis considers the assessment of the implications that this rise in market power for equilibrium prices brings, including barriers or invitations to entry. It is of utmost importance than to proceed to a comparison of the increase in market power concerning any benefit which can derive from the merger concerning efficiency gains, enhanced quality, etc.

1.2. Types of Mergers

There are three main categories of mergers: horizontal, vertical, or conglomerate.[38] A horizontal merger takes place when two rivals merge.[39] For instance, in 1998, Exxon and Mobil, which are two petroleum companies, proceeded to a $78.9 billion megamerger. Moreover, in 2009 another megamerger occurred when Pfizer purchased Wyeth for $68 billion. When a horizontal merger produces the merged firm rise in market power, creating anticompetitive effects, the merger may be faced with opposition to its realization on competition grounds.

[37] G. Hoberg, G. M. Phillips, "Product Market Synergies and Competition in Mergers and Acquisitions: a Text-Based Analysis" (2008), Working Paper 14289, available at http://www.nber.org/papers/w14289, p.4-5.
[38] Z. Rozen-Bakher, "Comparison of merger and acquisition (M&A) success in horizontal, vertical and conglomerate M&As: industry sector vs. services sector" (2018), *38 (7-8) The Service Industries Journal 492*, p. 493.
[39] P. A. Gaughan, *Mergers, Acquisitions, and Corporate Restructurings* (7th edn., JohnWiley & Sons, 2018), p.13.

The basic social cost connected with horizontal mergers arises from their potential to raise the price and restrict output.[40] Oligopoly models offer insights into such effects.[41]

As far as the energy industry is concerned, standard horizontal effects can emerge from a merger between direct competitors, bringing loss to the competition affecting every part of the energy value chain.[42] More specifically in the electricity generation sector, there are several prominent unilateral horizontal effects, taking into consideration the very precise structure of this market (for example, the existence of very inelastic and volatile demand with at the same time some generation technologies with diverse marginal costs).[43] These specific features suggest that the fact that transactions including high-cost and price-setting for generation plants possible incentivize the respective companies to reserve a specific amount of output from the market to increase prices. As a result:

"Higher prices would benefit the rest of the generation portfolio of the merged entity (which may include other price-setting units or infra-marginal generation). A portfolio generator may face incentives to withhold the output of high-cost assets (if technically feasible) because these plants earn relatively low-profit margins when they produce".[44]

The possible effect stated above is acknowledged for example in the most recent U.S. Horizontal Merger Guidelines (2010), in the part of the analysis concerning unilateral effects for the case of homogenous products.[45] According to the Guidelines,*"[a] unilateral output*

[40] G. A. Hay, G. J. Werden, "Horizontal Mergers: Law, Policy, and Economics" (1993), *83 (2) The American Economic Review 173*, p. 173.
[41] For more information on these oligopoly models see G. A. Hay, G. J. Werden, "Horizontal Mergers: Law, Policy, and Economics" (1993), *83 (2) The American Economic Review 173-177*, p. 173-175.
[42] G. Federico, "The Economic Analysis of Energy Mergers in Europe and in Spain" (2011), *7(3) Journal of Competition Law & Economics 603*, p.605.
[43] G. Federico, "The Economic Analysis of Energy Mergers in Europe and in Spain" (2011), *7(3) Journal of Competition Law & Economics 603*, p.605.
[44] G. Federico, "The Economic Analysis of Energy Mergers in Europe and in Spain" (2011), *7(3) Journal of Competition Law & Economics 603*, p.605.
[45] U.S. Department of Justice & Fed. Trade Comm'n, "2010 Horizontal Merger Guidelines" (2010), available at http://www.justice.gov/atr/public/guidelines/hmg-2010.pdf.

suppression strategy is more likely to be profitable when . . . the margin on the suppressed output is relatively low […]".[46]

In addition to this, the aforementioned unilateral incentives of a merger may be generated or fortified through the alteration of the inherent features of the generation portfolio of the merged entity.[47] Moreover, sometimes horizontal effects emerge in the retail supply of both gas and electricity, a popular case for most European countries where a tendency of domination by incumbent firms is widely observed (i.e. competition authorities are concerned even for the relatively low-risk losses of competition).[48] There are some instances at the retail level, where complementarities between gas and electricity supply produce horizontal effects to competition, which means under the framework of a particular local market, that the incumbent gas supplier is considered the most trustworthy competitor to the incumbent electricity supplier, and the opposite.

At the same time, according to the Horizontal Merger Guidelines (2010), post-merger gains can be identified even for the case of monopolistic environments. Undoubtedly, several horizontal mergers and their prospective efficiencies constitute a significant part of the competition.

"Efficiencies almost never justify a merger to monopoly or near-monopoly. Just as adverse competitive effects can arise along multiple dimensions of conduct, such as pricing and new product development, so too can efficiencies operate along multiple dimensions...".[49]

[46] U.S. Department of Justice & Fed. Trade Comm'n, "2010 Horizontal Merger Guidelines" (2010), available at http://www.justice.gov/atr/public/guidelines/hmg-2010.pdf, para. 6.3.
[47] G. Federico, "The Economic Analysis of Energy Mergers in Europe and in Spain" (2011), *7(3) Journal of Competition Law & Economics 603*, p.605.
[48] G. Federico, "The Economic Analysis of Energy Mergers in Europe and in Spain" (2011), *7(3) Journal of Competition Law & Economics 603*, p.605.
[49] U.S. Department of Justice and the Federal Trade Commission, Horizontal Merger Guidelines (August 19, 2010), section 10.

Following the Horizontal Merger Guidelines (2010) we provide an analysis where post-merger gains are realized even in a monopolistic situation. Horizontal mergers and their potential efficiencies are without doubt an important theme for competition authorities.[50]

A merger of this kind constitutes usually a choice for business combinations having a 'buyer-seller relationship'.[51] An example of this kind of relationship was noted in the U.S. eyeglasses industry. In this case, a specific entity, an Italian manufacturer, called Luxottica, moved to an expansion into the U.S. market, making several acquisitions. Through this process, it was enabled to obtain not only retailers including LensCrafters and Sunglasses Hut, but also major brands, i.e., Ray-Ban and Oakley. Surprisingly, the company got regulatory approval to possess this big vertical position, enjoying it in the U.S. eyeglasses market.[52]

The third category of a merger is a conglomerate merger. This type of merger takes place when the involved entities are not rivals, i.e., not collaborating on a buyer-seller relationship.[53] For instance, a conglomerate merger was recognized in the Philip Morris case, when the well-known tobacco company acquired General Foods in 1985 for $5.6 billion, Kraft in 1988 for $13.44 billion, and Nabisco in 2000 for $18.9 billion. What is interesting here is that Philip Morris, later changing its brand name to Altria, had turned to a more food business than a domestic tobacco business. The selection of this business strategy can be understood since the U.S. tobacco industry has been faced with a decline.[54]

Very recently, a change in the appearance of conglomerate mergers has been notified. The "new-economy" conglomerates are present, with the examples of entities such as Alphabet, the parent company of Google, Amazon, including possibly even Facebook.[55] The aforementioned

[50] A. Pavlou, "Learning by doing and horizontal mergers" (2015), *116 Journal of Economics 25*, p.25-26.
[51] P. A. Gaughan, *Mergers, Acquisitions, and Corporate Restructurings* (7th edn., JohnWiley & Sons, 2018), p.13.
[52] P. A. Gaughan, *Mergers, Acquisitions, and Corporate Restructurings* (7th edn., JohnWiley & Sons, 2018), p.13.
[53] P. A. Gaughan, *Mergers, Acquisitions, and Corporate Restructurings* (7th edn., JohnWiley & Sons, 2018), p.14.
[54] P. A. Gaughan, *Mergers, Acquisitions, and Corporate Restructurings* (7th edn., JohnWiley & Sons, 2018), p.14.
[55] P. A. Gaughan, *Mergers, Acquisitions, and Corporate Restructurings* (7th edn., JohnWiley & Sons, 2018), p.14.

companies greatly expanded, since they started from one main line of business which produced substantial cash flows, enabling them to turn their business activities into other industries via M&As.[56]

1.3. Mergers and Significant Market Power (SMP)

First and foremost, the definition of SMP must be offered, to be able to understand the connecting link between this concept and the merging activity of firms. Hence, the common description of SMP is the following:

"An undertaking shall be deemed to have significant market power if, either individually or jointly with others, it enjoys a position equivalent to dominance, that is to say, a position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers."[57]

The above conceptual discourse was confirmed by the case law of the CJEU many times under the framework of Article 82 of the EC Treaty (later Article 102 of the TFEU).[58]

Further to the above, Article 2(1) establishes several criteria that the EC must consider when making its appraisal.[59] Article 2(2) goes as follows:

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[56] For example, Alphabet/Google controls Android, YouTube, and Waze. Facebook acquired Instagram, WhatsApp, and Oculus. Amazon acquired Zappos.com, Kiva Systems, Twitch, and in 2017, Whole Foods. These companies look different from the conglomerates of old but they also have many characteristics in common.

[57] Article 4, Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services (Electronic Communications Framework Directive).

[58] R. Whish, D. Bailey, *Competition Law* (9th edn., Oxford University Press, 2018), p. 882.

[59] See Article 2 (1), the appraisal criteria of concentrations, Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (Merger Regulation), OJ 2004/L 24/1: "In making this appraisal, the Commission shall take into account:
(a) the need to maintain and develop effective competition within the [internal] market in view of, among other things, the structure of all the markets concerned and the actual or potential competition from undertakings located either within or outwith the [Union];
(b) the market position of the undertakings concerned and their economic and financial power, the alternatives available to suppliers and users, their access to supplies or markets, any legal or other barriers to entry, supply and demand trends for the relevant goods and services, the interests of the intermediate and ultimate consumers, and the development of technical and economic progress provided that it is to consumers' advantage and does not form an obstacle to competition.".

"A concentration which would not significantly impede effective competition in the [internal] market or a substantial part of it, in particular as a result of the creation or strengthening of a dominant position, shall be declared compatible with the [internal] market."

Article 2(3) provides that:

"A concentration which would significantly impede effective competition, in the [internal] market or 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."

In other words, the EC has to intervene only when the conditions of a merger would likely enable firms, acting individually or collectively, to exercise market power and thus significantly hinder effective competition.[60]

Irrespective of the level of competition among firms, either a price or quantity competition, a possible merger between competitors rises the rest of firms' market power (concerning the involved merging firms and their competitors). Examining both horizontal and non-horizontal mergers, an increase in market power because of either a unilateral or a coordinated effect is noted.[61] This conclusion is supported by evidence indicating an increased market power by the entities involved in the M&A transaction.[62]

Thus, a merger leads, lacking any offsetting efficiency benefit, to higher prices and lower output. This happens since the product of a merger, the merged entity, functions under less competitive conditions than the two firms acting without any coordination would have done. The type of competition demonstrates the precise origin of the rise in terms of market power,

[60] R. Whish, D. Bailey, *Competition Law* (9th edn., Oxford University Press, 2018), p. 882.
[61] J. Church, "The Impact of Vertical and Conglomerate Mergers on Competition" (2004), Final Report, available at http://publications.europa.eu/resource/cellar/d95d239c-2844-4c95-80a4-2181e85e8329.0001.02/DOC_2, p. 2.
[62] A. B. Bruce, J. R. Pierce, "Evidence for the Effects of Mergers on Market Power and Efficiency" (2016), Finance and Economics Discussion Series 2016-082, Washington: Board of Governors of the Federal Reserve System, available at https://doi.org/10.17016/FEDS.2016.082, p. 5.

including inter alia the prices or quantities. It is worthwhile differentiating the effect of the merger on the merging firms and the rest of the firms to get a clear idea of the general impact of a merger in multiple frameworks.[63]

In parallel, a merger can increase the market power of the firms involved in the process of merging and at the same time led to a decrease in both consumer surplus and total welfare.[64] Generally, the merger enhances to some degree the market power of merging firms, while increasing at a next stage price.[65]

1.4. Horizontal Effects: Unilateral effects

A horizontal merger poses an immediate effect on the merging firms that is expressed in the convergence of all of their resources into one single entity. In this way, the elimination of the competition between the parties is noted. This happens as the merged firm acquires the market power owned previously by each party separately.

Additionally, a horizontal merger may produce unilateral effects *"[…] by eliminating important competitive constraints on one or more firms, which consequently would have increased market power, without resorting to coordinated behavior."*.[66] The merged entity may be enabled through the increased market power that it acquires to unilaterally increase the price above the pre-merger level while maintaining its current profit status.[67] Except that, other abilities of the increased market power include cases of reducing quality or obstructing technique progress.

[63] M. Ivaldi, B. Jullien, P. Rey, P. Seabright, J. Tirole, "The Economics of Unilateral Effects" (2003), Interim Report for DG Competition, European Commission, available at http://publications.ut-capitole.fr/1199/1/economics_unilaterals.pdf, p.22.
[64] M. Motta, *Competition Policy: Theory and Practice* (2004, Cambridge University Press), p.255.
[65] M. Motta, *Competition Policy: Theory and Practice* (2004, Cambridge University Press), p.256.
[66] Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (*The Horizontal Merger Notice*), OJ 2004/C 31/03, para. 22(a).
[67] See S. B. Völcker, "Mind the Gap: Unilateral Effects Analysis Arrives in EC Merger Control" (2004), *10 (7) European Competition Law Review 395*.

What is worth mentioning is the most common unilateral horizontal effect, sometimes called 'single dominance'. According to the European Court of Justice (ECJ) definition of dominant position, that is explained within the following framework:

"a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by giving it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers."[68]

From the above example, it is shown the dominant firm may succeed in getting more profit through the reduction of its outputs and raising prices, under the condition that the capacities of the competitors are small and restricted.

In the process of the identification of possible unilateral horizontal effects, the EC scrutinize several factors which may enable the unilateral effects through a merger: (1) the involved firms possess a big portion of market shares;[69] (2) same firms can be identified as adjacent competitors;[70] (3) there are few or restricted possibilities to customers to be able to switch supplier;[71] (4) the rise of supply is very impossible for competitors in case of an increase in

[68] See Case 85/76, Hoffmann-La Roche & Co AG v. Commission, 1979 ECR 461, para. 38.
[69] Through the EU case law, it was established that "a particularly high market share may in itself be evidence of the existence of a dominant position," see Case 85/76, Hoffmann-La Roche v. Commission, para. 41, Case C-62/86, Akzo v. Commission, para. 60.
[70] Unilateral effects would possibly occur in a merger between entities producing the only two substitutable products. See for example Case COMP/M.1672, Volvo/Scania, where one of the reasons to block Volvo/Scania was due to the closeness of their products (para. 80).
[71] When customers are able to choose among other options, it means that they have more bargaining power. See EC's comments on that point in Case COMP/M.081, VIAG/Continental Can, para. 21. If no alternative exists, customers are vulnerable to price increase.

prices;[72] (5) the enablement of the merged entity to obstruct growth by competitors;[73] and (6) elimination of a significant competitive force by a merger.[74]

1.5. Horizontal Effects: Coordinated Effects

When talking about coordinated horizontal effects in a merger, we usually refer to tacit collusion. This form of collusion emerges if the unilateral price rise undertaken by the merged firm *"[…] is not profitable unless there are accommodating responses by other significant competitors."*.[75]

Within the framework of a dynamically competitive market, the coordination signals of a firm, through the process of increasing prices to a fixed level, make rivals of the interested firm accept this offer to stop the competition in most of the cases, as they could be more profitable and benefited from the higher prices as well.

Coordinated horizontal effects break the natural development of the above competitive conditions through the promotion of coordination in the ways that the firms *"previously were not coordinating their behavior, are now significantly more likely to coordinate and raise prices or otherwise harm effective competition,"* leading to situations where the firms which have proceed to coordination previously of the merger, may continue to coordinate more easily and effectively.[76]

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[72] See the EC, Case COMP/M.2187, CVC/Lenzing, where the EC assessed the historical capacity of European VSF producers, concluding that Lenzing constitutes the only party "who actually raised its production capacity, against the common trend of capacity reductions" (para. 162). Thus, the merger would eliminate Lenzing, the exclusive efficient competitor. The merged entity "would control a substantial share of total capacity and have an incentive to create shortage of supply in order to keep prices high" (para. 163).

[73] A merged firm may be able to restrict competitors' expansion, through the control of some essential resources for expansion, such as supply of input, intellectual property, or access to some infrastructure or platforms.

[74] See the EC, Case COMP/M.877 Boeing/McDonnell Douglas (MDC); Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (*The Horizontal Merger Notice*), OJ 2004/C 31/03, paras. 26–38.

[75] D. T. Scheffman, M. Coleman, "Quantitative Analyses of Potential Competitive Effects from A Merger" (2004), *12 George Mason Law Review 319*, p.321.

[76] The Horizontal Merger Notice, para. 22(b).

1.6. Vertical Effects

A vertical merger, i.e. a merger between firms that operate at different levels of the supply chain, for instance when a manufacturer merged with a supplier of component products, etc.[77] According to the EC Non-horizontal Merger Notice, non-horizontal mergers are *"less likely to significantly impede effective competition"*, since there is no direct elimination of competition and at the same time an increase of the efficiency gains is highlighted.[78]

On the other hand, vertical mergers might sometimes end up having several positive impacts on consumer welfare.[79] Particularly, economic theory generally acknowledges that vertical mergers might reduce the double marginalization problem and opportunistic conduct.[80] In addition to that, some further positive outcomes of vertical mergers might include lower transaction costs, increased efficiencies in input choices, and other fixed and dynamic efficiencies.[81]

However, negative effects on competition might derive from a vertical merger, if the merged entity can put obstacles for its competitors to access production supply or distribution channels. Consequently, some of the possible anticompetitive effects produced by this kind of merger

[77] W. Wang, M. Rudanko, "EU Merger Remedies and Competition Concerns: An Empirical Assessment" (2012), *18 (4) European Law Journal 555*, p.560.
[78] The Horizontal Merger Notice, paras. 11–13.
[79] European Economic & Marketing Consultants, "Input and Customer Foreclosure: Nonhorizontale Merger Guidelines", Competition Competence Report, available at https://www.ee-mc.com/fileadmin/user_upload/Input_Customer_Foreclosure__1_.pdf, p.1.
[80] For a definition of the double marginalization problem see M. Janssen, S. Shelegia, "Consumer Search and Double Marginalization" (2015), *105(6) American Economic Review 1683*, p.1683: "The well-known double marginalization problem understates the inefficiencies arising from vertical relations in consumer search markets where consumers are uninformed about the wholesale prices charged by manufacturers to retailers. Consumer search provides a monopoly manufacturer with an additional incentive to increase its price, worsening the double marginalization problem and lowering the manufacturer's profits. Nevertheless, manufacturers in more competitive wholesale markets may not have an incentive to reveal their prices to consumers."; B. Brand, M. Grothe, "Social responsibility in a bilateral monopoly" (2015), *115 (3) Journal of Economics 275*, p.276-277.
[81] European Economic & Marketing Consultants, "Input and Customer Foreclosure: Nonhorizontale Merger Guidelines", Competition Competence Report, available at https://www.ee-mc.com/fileadmin/user_upload/Input_Customer_Foreclosure__1_.pdf, p.1.

might raise the costs of competitors or reduce competitors' revenue.[82] The aforementioned negative outcomes are connected with the inevitable fact of the foreclosure of input and customers of the merging entities,[83] as the former will increase rivals' costs and the latter will decrease rivals' revenues. In the context of exceptional circumstances, two types of foreclosure concerns might arise when two entities merging vertically. The essential condition to achieve foreclosure is met when the merging parties possess at one market level substantial market power.[84]

In the process of assessing the anticompetitive effects of vertical mergers, which primarily refer to foreclosure, the EC scrutinizes firstly the capability of the merged entity to foreclose the access of input or customers; and secondly, its incentive to adopt this conduct.[85] Examining now the ability of the merged firm to foreclosure input or customers of those controlled by the merged entity for its rivals, this becomes likely due to the existence of very few, or even none, alternative resources.[86] Accordingly, investigation concerning input foreclosure has its main focus on alternative supply source and switching costs, whereas customer foreclosure analysis pertains to the distribution channels of other upstream firms.[87]

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[82] J. Church, "The Impact of Vertical and Conglomerate Mergers on Competition" (2004), Report for DG Competition, European Commission, available at http://ec.europa.eu/competition/mergers/studies_reports/merger_impact.pdf.

[83] J. Church, "The Impact of Vertical and Conglomerate Mergers on Competition" (2004), Report for DG Competition, European Commission, available at http://ec.europa.eu/competition/mergers/studies_reports/merger_impact.pdf.

[84] European Economic & Marketing Consultants, "Input and Customer Foreclosure: Nonhorizontale Merger Guidelines", Competition Competence Report, available at https://www.ee-mc.com/fileadmin/user_upload/Input_Customer_Foreclosure__1_.pdf, p.1.

[85] Guidelines on the Assessment of Non-horizontal Mergers under the Council Regulation on the control of Concentrations between Undertakings (*The EC Non-horizontal Mergers Notice*), OJ 2008/C 265/07, para. 32.

[86] See Case COMP/M.3696, E.ON/MOL, concerning the post-merger Hungary market, where E.ON would be the exclusive gas retailer having access to the TOP import contracts of MOL WMT. The strong dependence of the domestic production of MOL E&P (para. 404) and the gas retailers affiliated with the RDCs on MOL's supply was taken into consideration. Hence, the EC came to the conclusion that the merged entity would be able to foreclose access to wholesale gas to its competitors. Another case was the Case COMP/M.2822, ENBW/EN/GVS, where the EC concluded that since EnBW's subsidiary NWS is one of the 10 shareholders in GVS, with a stake of 33.40%, the merger would secure GVS's sale to NWS, which would lead to customer foreclosure at a certain extent (paras. 54–57).

[87] W. Wang, M. Rudanko "EU Merger Remedies and Competition Concerns: An Empirical Assessment" (2012), *18 (4) European Law Journal 555*, p.560.

Talking about firms' incentive to foreclose, this depends on the magnitude of the possible profitability through a merger.[88] For example, if the merged firm proceeds to a supply foreclosure, the rise of downstream sales must be more profitable to the merged entity, than exclusively compensate for the reduction in upstream sales.[89]

1.7. Conglomerate Effects

Conglomerate mergers,[90] which as it was explained before concerning relevant actions by firms without existing or possible competitive relationship either "*[…] as direct competitors or as suppliers or customers that do not result in horizontal overlaps or vertical relationships"*, are frequently considered as not having negative effects or at least being neutral in this direction, on the competition.[91] Nevertheless, the portfolio power which the merger generates may bring anticompetitive effects as a general result of the merger.[92]

Under the conditions of consumer demand being susceptible to variety differentials, a portfolio or range effect emerges.[93] In other words, when consumers value variety, the variety differential of a firm, which is the case of one firm possessing a wider product range in comparison with other firms, will increase demand, while leading to the reduction of demand and revenues of firm competitors. As a result, a variety of advantages could arise for the conglomerate entity, when after the completion of the merger it forecloses.[94] It must be highlighted here that the term

[88] The EC Non-horizontal Mergers Notice, para. 68.
[89] See Case IV/M.931, NESTE/IVO, where the merged entity would have the ability to compensate a decrease in the sales volumes of natural gas by increased sales of electricity. Thus, its judgment on pricing natural gas would significantly affect both the market for sales of natural gas and the wholesale market for electricity (para 47).
[90] M. Monti, "Antitrust in the U.S. and Europe: A History of Convergence" (2001), General Counsel Roundtable, American Bar Association; Case T-5/02, Tetra Laval BV v. Commission, para. 155.
[91] See the relevant opinion of U.S. enforcement authorities, i.e., Panel Discussion, "Interview with William F. Baxter" (1982), *51 Antitrust L.J. 23*, p. 25: "Mergers are rarely, if ever-I guess I would be prepared to say never-troublesome because of their vertical or conglomerate features.".
[92] P. Watson, "Portfolio Effects in EC Merger Law" (2003), *48 (3) The antitrust bulletin 781*, p. 786.
[93] J. Church, "The Impact of Vertical and Conglomerate Mergers on Competition" (2004), Final Report, available at http://publications.europa.eu/resource/cellar/d95d239c-2844-4c95-80a4-2181e85e8329.0001.02/DOC_2, p. 40.
[94] J. Church, "The Impact of Vertical and Conglomerate Mergers on Competition" (2004), Final Report, available at http://publications.europa.eu/resource/cellar/d95d239c-2844-4c95-80a4-2181e85e8329.0001.02/DOC_2, p. 40.

'foreclosure' is translated into not providing a competitor with access to the complements in conglomerate's control and possession. Thus, considering that consumers value variety, the conglomerate entity can end up with market power or monopolization conduct, using this variety advantage in fulfilling its financial interests.[95]

Accordingly, in 2001 the EC was faced with the case of a prohibition of two mergers between conglomerates for reasons which included inter alia the magnitude of the portfolio power of these two firms which it was believed that post-merger could result in the loss of welfare: GE/Honeywell'[96] and Tetra Laval/Sidel.

The EC has suggested a certain definition of conglomerate mergers through a submission to the OECD (OECD, 2002). Subsequently, this specific definition has been endorsed by the CFI in its judgment on *Tetra Laval/Sidel*, when the Court stated that:

"Conglomerate mergers are mergers between firms that have no existing or potential competitive relationship either as competitors or as suppliers or customers. Under some circumstances, conglomerate mergers may raise competitive concerns where the merging firms are suppliers of complementary, non-competing but closely related products requested by the same set of customers".

Therefore, a conglomerate merger can exclusively be prohibited under the condition that it creates or strengthens a dominant position in the common market or a substantial part of it and that consequently effective competition will be meaningfully hindered.

The very specific nature of the characteristics of conglomerate mergers oblige us for a distinct and different analysis from horizontal and vertical mergers, since these two categories of

[95] J. Church, "The Impact of Vertical and Conglomerate Mergers on Competition" (2004), Final Report, available at http://publications.europa.eu/resource/cellar/d95d239c-2844-4c95-80a4-2181e85e8329.0001.02/DOC_2, p. 40.
[96] Case COMP/M.2220, General Electric/Honeywell.

mergers lead to structural change directly after the merger and as a result, the effects of the merger can more easily be assessed. On the contrary, the results of a conglomerate merger can only be discovered by the future conduct of the merger entity, making it an extremely difficult matter of consideration to decide on it when a possible merger arises.

More specifically, in *Tetra Laval BV v. Commission*, the EC supported that no difference should be made in the treatment of conglomerate mergers and other types of mergers. This argument was rejected: *"[...] the analysis of potentially anti-competitive or conglomerate effects of a merger transaction raises a certain number of specific problems relating to the nature of such a transaction."*.[97]

Subsequently, the Court of First Instance proceeded to an identification of the particular issues generated by a conglomerate merger, highlighting the temporal characteristics of the portfolio outcomes and the nature of those consequences. Under its analysis, these effects may take a structural form when they arise straightforwardly from the establishment of an economic structure, or they can be behavioral effects since they will only appear if specific commercial actions and practices are adopted by the merged entity.[98]

Concerning the temporal aspects of the merger, the Court held that it was not necessary for the immediate emergence of a dominant position to be foreseeable. It was sufficient if the Commission was able to conclude that a dominant position would, in all likelihood be created or strengthened in the "relatively near future" and that it would lead to effective competition in the market is significantly impeded. Any other interpretation of Article 2(3) of the Merger Control Regulation would deprive the Commission of the power to exercise control over mergers having portfolio effects.

[97] Case T-5/02, Tetra Laval BV v. Commission of the European Communities, 2002 II-04381, para. 147.
[98] P. Watson, "Portfolio Effects in EC Merger Law" (2003), *48 (3) Antitrust Bulletin 781*, p. 788.

Where the creation or strengthening of a dominant position will allegedly result from the conduct of the merged entity as opposed to the structure resulting from the merger transaction itself, it is incumbent on the Commission to produce convincing evidence of that conduct and its impact on the market.

2. The regulatory framework

Merger regulation is the set of rules which control struggles for corporate power. The role of this regulation is vital since it structures rules and provides tools that reduce costs and inefficiencies connected with the merger mechanism, facilitating transmission of control *"[...] towards more product owners and management"*.[99] At the level of cross-border transactions, it is a fact that the various stakeholders are located in different jurisdictions and thereby do not have the same ability to influence the same policymakers, being subject to different jurisdictions. In that regard, possibly those who are benefited from a merger and others who are faced with harm from a merger are not located in the same jurisdiction, which could lead to a situation where:

"In this scenario, the legislature of the state of the target corporation has an incentive to allow defensive measures, regardless of whether they maximize the value of the firm, to favor its national constituencies (usually the ones that are politically influential)".[100]

[99] M. Goergen, M. Martynova, L. Renneboog, "Corporate Governance Convergence: Evidence from Takeover Regulation Reforms in Europe" (2005), TILEC Discussion Paper 2005-017, TILEC, available at https://pure.uvt.nl/ws/portalfiles/portal/775978/2005-017.pdf.

[100] M. Ventoruzzo, "Europe's Thirteenth Directive and U.S. Takeover Regulation: Regulatory Means and Political and Economic Ends" (2006), *41 TEX INT'L LJ 171*.

2.1. The Merger Regulation and The Notice on Remedies

At the EU level, the Merger Regulation regulates mergers through the establishment of the rationale that only mergers that create or strengthen a dominant position will be banned.[101] In this section, the present EU merger policy will be analyzed.

Under the purpose of maintaining effective competition, the EU competition law, and policy regime, as any other antitrust law framework,[102] focuses on the comparably better results of the market structure when competition exists among rival firms. In this way, the consequences that emerge from a monopolistic economic model can be avoided.[103]

EC Merger control constitutes another tool to the above end. The merger framework has a twofold approach: firstly, preventing the prospect dominant merged entity from any future attempts to abuse its dominant position, and; reassuring that a competitive market structure will be maintained.[104] As far as the European Merger Regulation (ECMR) is concerned,[105] the aforementioned approach is confirmed by Art. 2(3) of the ECMR. In this direction, through the explicit reference to the need for protection of the competitive structure of the common market, this specific Article sets out the substantive test that EC technocrats need to invoke to assess the effects of a specific merger on the competition:

[101] M. Motta, *Competition Policy: Theory and Practice* (2004, Cambridge University Press), p. 288.
[102] S. Bishop, M. Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement* (Sweet & Maxwell, 2002), p. 13.
[103] R. Whish, *Competition Law* (4th edn., Oxford University Press, 2001).
[104] See Recital 8 of the Merger Regulation; judgment of CFI in Case T-102/96, Gencor v. Commission, 1999 ECR II-753, para. 316; ECJ in Case C-12/03, P Commission v. Tetra Laval, 2005 ECR I-987, para. 86; Judgment of CFI in Case T-158/00, ARD v. Commission, 2003 ECR II-3825, paras. 192 et seq.
[105] Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (OJ L 24, 29.01.2004, p. 1–22).

"A concentration which would significantly impede effective competition, in the common market or a substantial part of it, in particular as a result of the creation or strengthening of a dominant position, shall be declared incompatible with the common market".[106]

The crucial test for identifying the dominant position of an undertaking has been clearly expressed by Commissioner Monti *as long ago:*

"[not] some immovable and absolute measurement against which the future effects of a merger can be assessed. It is a highly sophisticated tool that requires us to understand the dynamics of competition and to identify the key competitive factors in the markets concerned".[107]

Accordingly, an entity holding a dominant position can be expressed through an indication of a considerable degree of market power permitting this specific entity to adopt a to a noticeable extent independent role concerning its competitors and customers and finally of consumers.[108]

To decide if a firm possesses a dominant position under EU law, the following criteria must be met: (1) defining the relevant market; (2) establishing the share within that market of the involved firms, and (3) evaluating whether barriers to entry limit the ability of other firms to enter the market.[109]

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[106] A. Jones, B. Sufrin, *EC Competition Law: Text, Cases, and Materials* (2nd edn., OUP, 2001), p. 751. See also Case T-102/96, Gencor Limited v. Commission, 1999 E.C.R. II-753, where the Court of First Instance of the European Communities held that the purpose of the Merger Regulation was: "to ensure that the restructuring of undertakings does not result in the creation of positions of economic power which may significantly impede effective competition in the common market. Community jurisdictions is therefore founded, first and foremost, on the need to avoid the establishment of market structures which may create or strengthen a dominant position, and not on the need to control directly possible abuses of a dominant position".

[107] M. Monti, "The Main Challenges for a New Decade of EC Merger Control", Remarks at the EC Merger Control 10th Anniversary Conference (Sept. 15, 2000), available at http://europa.eu.int/rapid/start/cgi/guesten.ksh?pactiongettxt=gt&doc=SPEECH/00/311101RAPID&lg=EN. See also G. Drauz, "Recent Developments in the Assessment of Dominance", Remarks at the EC Merger Control 10th Anniversary Conference (Sept. 14-15, 2000).

[108] Case 322/81, Michelin v. Commission, 1983 E.C.R. 3461; Case 311/84, CBEM v. CLT and IPB, 1983 E.C.R. 3261; Case 27/76, United Brands v. Commission, 1978 E.C.R. 207.

[109] P. M. Roth, V. Rose, Bellamy & Child, *European Community Law of Competition* (Peter Roth ed., 2001), p. 685; J. Faull, A. Nikpay, *Faull & Nikpay: The EC Law of Competition* (Oxford University Press, 1999), p. 122-145.

In its mandate of assessing concentrations under the framework of Merger Regulation, the EC must protect the ultimate objective of developing and maintaining effective competition within the common market, preventing accordingly possible anticompetitive effects.[110] More specifically, other things that require consideration by the EC include the structure of the relevant markets and the actual or potential competition within those markets. There are also various considerations needed to be taken into account in this process, i.e. the market position of the merging entities, their financial and economic power, the alternatives available to suppliers and users, barriers to entry, the interests of intermediate and ultimate consumers, and the enhancing of technical and economic progress (taking the positive perspective that a particular transaction is on the direction of consumers' advantage and does not put obstacles to competition). The above constitute important indicators, contributing to drawing respective conclusions on the impact of a suggested merging deal in a specific market.[111]

Presenting the regulatory tools which are available to achieve the Merger policy objectives laid down by Article 2(3), EC is granted several significant powers/actions. Indeed, the respective regulation provides the EC with jurisdiction to review, invoking the above-described principles, concentrations[112] with a Community dimension.[113] These transactions need to be notified to the EC, which in its turn have to assess, within -one month, during the so-called "phase I" investigation, whether the notified concentration falls within the scope of the ECMR, and, if so, whether it raises serious doubts as to its compatibility with the common market.

When the period of phase I ends, if the EC still doubts the compatibility of the notified transaction with the scope of the ECMR, then it needs to issue a decision according to Article

[110] M. Piergiovanni, "EC Merger Control Regulation and The Energy Sector: An Analysis of the European Commission's Decisional Practice on Remedies" (2003), *4 (3) Journal of Network Industries 227*, p. 241.
[111] Article 2, Council Regulation (EEC) No 4064/89 of 21 December 1989 on the control of concentrations between undertakings, 1998 O.J. (C 66) 22.
[112] See Article 3 of the Merger Regulation.
[113] Article 1 of the Merger Regulation.

6(1)(a). On the other hand, if the same institution concludes that the aforementioned transaction indeed falls within the scope of ECMR, or some issues initially expressed by EC have been removed through the commitments undertaken by the interested parties, it will proceed to the clearance of the concentration according to under Article 6(1)(b) of the ECMR, either unconditionally, or subject to conditions and obligations.

Lastly, if the above-mentioned serious doubts exist, not being removed by the undertakings proposed by the parties, the EC will begin the so-called "phase II" investigation, according to Article 6(1)(c) of the ECMR. When phase II investigation ends, a merger can be cleared unconditionally. On the other hand, any decision of authorization coming with conditions and obligations can be adopted according to Article 8(2) of the ECMR. When the transaction is declared incompatible with the common market, this happens through the invocation of Article 8(3) of the ECMR, satisfying the test included in Article 2 (3) of the ECMR.

Bearing in mind the above analysis, the EC has a wide range of powers to tackle various merges cases. These tools include inter alia the possibility to adopt clearance decisions with conditions and obligations, both during phase I and phase II of the investigation.

As regards the new Remedies Notice, this codifies the EC's approach in the area of remedies, which has become gradually rough.[114] Talking about the form of commitments, stricter information requirements are imposed, demanding far more detail than the 2001 Notice. When it turns to substance, this Notice explains and constricts the conditions that remedies must comply with to be acceptable by the EC, i.e. inter alia concerning the scope of divestitures.[115]

[114] G. Drauz, T. Chellingsworth, H. Hyrkas, "Recent Developments in EC Merger Control" (2010), 1 *Journal of European Competition Law & Practice* 12, p. 20.
[115] G. Drauz, T. Chellingsworth, H. Hyrkas, "Recent Developments in EC Merger Control" (2010), 1 *Journal of European Competition Law & Practice* 12, p. 20.

Importantly, the new Remedies Notice encourages clear-cut divestitures, even for non-horizontal mergers. At the same time, this Notice expresses concerns about behavioral remedies, since *"[t]he object of divestiture should ideally be a standalone business, although where this is not possible the EC may accept an asset divestiture"*.[116]

On the other hand, the EC's enforcement confidence of the merger control rules was probably augmented by the ECJ judgment in *Bertelsmann and Sony v Impala*. Thus, in this decision a confirmation was made by the Court as to the power of the EC to depart from its provisional findings in a Statement of Objections in the light of the parties' response, providing the EC with more room for maneuver. In this way, the EC can to a greater extent be able to use a Statement of Objections to test the strength of its case and this may increase the number of cases in which the EC issues a Statement of Objections.

2.2. Purpose of the remedies

The objective of merger remedies is to achieve the alleviation of the potential competitive detriments, maintaining the efficiencies derived from a merger.[117] In this context, remedies make merger decisions a more long and thorough process, avoiding very simple approaches, for example, yes or no options, and the pro- and anti-competitive merger effects which might result in a prohibition. Using the remedy toolkit, competition authorities of EU MS can expand the scope of merger control, managing broader and finer regulation of the market conducts. As a result, the same authorities might make different decisions for a merger according to the location of the market, demanding guarantees such as asset relocation through divestiture and forming market price via a supply guarantee.[118] In this context, the General Court of EU clearly

[116] G. Drauz, T. Chellingsworth, H. Hyrkas, "Recent Developments in EC Merger Control" (2010), 1 *Journal of European Competition Law & Practice* 12, p. 20.
[117] W. Wang, M. Rudanko, "EU Merger Remedies and Competition Concerns: An Empirical Assessment" (2012), 18 (4) *European Law Journal* 555, p. 562.
[118] P. Rey, "Economic Analysis and the Choice of Remedy", in F. Lévêque, H. Shelanski (eds), *Merger Remedies in American and European Union Competition Law* (Edward Elgar Publishing, 2003), p. 129.

stated in Lufthansa v. Commission: *"[t]he purposes of commitments is in fact to remedy the competition problems identified in the decision authorizing the concentration [...] the commitments might have to be amended, or the need for them might disappear, depending on how the market situation develops."*.

The object of remedies is confined through the EC Merger Remedies Notice as long as the condition of the removal of competition concerns is satisfied.[119] Therefore, a reassurance of the possible competitive harms arising out from a merger transaction should be followed when a decision on merger remedies is made, precluding the substantial disorder of effective competition.[120] Though the boundary is not being set directly, the proportionality doctrine is adopted as regards merger design, requiring that the acceptable remedies must be proportionate to the competition issue and eliminate it.[121] The case law of the European court provided us with an interpretation of the proportionality principle since the respective measures taken by public authorities must not exceed the appropriate and essential boundaries to preserve the purported legitimate objective.[122] Under the framework of merger remedy design, *"[...] the proportionality doctrine ties every remedy to a competition problem raised by a merger and emphasizes the remedy's ability to eliminate the competition problem, in light of the remedy's size, degree or intensity in relation to the concern"*.[123]

[119] Commission Notice on remedies acceptable under Council Regulation (EC) No 139/2004 and under Commission Regulation (EC) No 802/2004 (The EC Merger Remedies Notice) (2007), para. 2.
[120] ECJ, judgment in Case C-12/03 P, Commission v. Tetra Laval, 2005 ECR I-987, para. 86; CFI, judgment of 25 March 1999 in Case T-102/96, Gencor v. Commission, 1999 ECR II-753, paras. 319 et seq.; CFI, judgment of 30 September 2003 in Case T-158/00, ARD v. Commission, 2003 ECR II-3825, para. 193; CFI in Case T-177/04, easyJet v. Commission, 2006 ECR II-1931, para. 182; CFI, judgment in Case T-87/05, EDP v. Commission, 2005 ECR II-3745, para. 101.
[121] Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (Merger Regulation), OJ 2004/L 24/1, para. 30.
[122] See the ECJ, Case 15/83, Denkavit Nederland, 1984 ECR 2171, para. 25; Case T-65/98, Van den Bergh Foods v. Commission, 2003 ECR II-4653, para. 201.
[123] E. T. Sullivan, "Antitrust Remedies in the U.S and E.U.: Advancing a Standard of Proportionality" (2003), *48 (2) The Antitrust Bulletin 377*, p. 414.

It should be pointed out that remedies can be released or changed under the framework of a specific "release valve". The EC establishes this special regime in its Remedies Notice: *"[t]he Commission may grant waivers or accept modifications or substitutions of the commitments only in exceptional circumstances"*.[124] The release valve is founded on the review clause of the Commission's Model Divestiture commitments, the blueprint that has been used by most entities so far: *"[t]he Commission may further, in response to a reasoned request from the Notifying Parties showing good cause waive, modify or substitute, in exceptional circumstances, one or more of the undertakings in these Commitments."*.[125]

Consequently, considering also the provisions of the Notice,[126] when it comes to the objective of the undertakings incorporated in these conditions and obligations, this is expressed in the maintenance of an effective competitive structure of the market as the core purpose towards which the commitments must function.[127]

It follows that the remedies offered during phase I of the investigation should be designed to provide a direct response to an easily identifiable competitive concern.[128] Thus, through this process the parties remove any serious doubt expressed by the EC concerning the concentration;[129] at the same time, the specific remedies proposed at phase II of the

[124] Commission Notice on remedies acceptable under Council Regulation (EC) No 139/2004 and under Commission Regulation (EC) No 802/2004 (2008/C 267/01), para. 73.
[125] European Commission, "The Commission's Model Divestiture commitments" (December 2013), available at https://ec.europa.eu/competition/mergers/legislation/template_commitments_en.pdf, p. 13.
[126] See Commission Notice on Remedies Acceptable under Council Regulation 4064/89/EEC and under Commission Regulation 447/98/EC, 2001 O.J. (C 68) 3, para. 5; See also A. Jones, B. Sufrin, *EC Competition Law: Text, Cases, and Materials* (2nd edn., Oxford University Press, 2001), p. 790.
[127] See Case T-102/96, Gencor Limited v. Commission, 1999 E.C.R. II-753. See G. P. Elliot, "The Gencor Judgment: Collective Dominance, Remedies and Extraterritoriality under the Merger Regulation" (1999), *European Law Review 638*.
[128] Commission Notice on Remedies Acceptable under Council Regulation 4064/89/EEC and under Commission Regulation 447/98/EC, 2001 O.J. (C 68) 3, para. 37.
[129] See C. Bellamy, G. Child, *European Community Law of Competition* (5th edn., Oxford University Press, 2001), p. 445.

investigation should be efficient to achieve eliminating any competitive problem that may emerge from the merger.[130]

"Only if this is the case, will the remedies be consistent with the provisions and the objectives of the Merger Regulation, and with the purposes of EC competition law as a whole."[131]

Consequently, the conditions and obligations included in each clearance decision issued by the EC must be restricted to what is required to prevent a notified transaction from leading to the creation or strengthening of a dominant position on the relevant market. Otherwise, any decision that exceeds the aforementioned framework should be considered incompatible with the provisions and the objectives of the ECMR, of EU competition law, and overall, with the regime of the Lisbon Treaty.[132]

3. Types of remedies

Importantly, when under a merger several anti-competitive concerns are raised, the respective authority proceeds to suggest acceptance upon conditions expressed in the form of commitments on merging parties to accept the proposed merger.[133] Two basic types of remedies can be identified, i.e. the *structural* and *behavioral* remedies.[134] In addition to these, another

[130] See C. Bellamy, G. Child, *European Community Law of Competition* (5th edn., Oxford University Press, 2001), p. 446.
[131] M. Piergiovanni, "EC Merger Control Regulation and The Energy Sector: An Analysis of the European Commission's Decisional Practice on Remedies" (2003), *4 (3) Journal of Network Industries 227*, p.241.
[132] There is an argumentation according to which the imposition of remedies in merger cases may constitute sometimes one of the exclusive (or at least the only efficient) means for the EC to accomplish its institutional goals; in that regard, the creation of an integrated European energy market- is necessarily political in nature. Despite that fact that undoubtedly this specific argument has a definite value in the political sphere, from a legal perspective, it does not change the conclusion pursuant to which decisions accompanying remedies of a "regulatory" nature should be considered illegitimate.
[133] P. Bougette, S. Turolla, "Merger Remedies at the European Commission: A Multinomial Logit Analysis" (2006), MPRA Paper No. 2461, available at https://mpra.ub.uni-muenchen.de/2461/, p.2.
[134] For an excellent literature review on merger remedies, see S. Davies, B. Lyons, *Mergers and Merger Remedies in the EU: Assessing the Consequences for Competition* (Edward Elgar Publishing, 2008), Chapter 3.

type of remedies must be mentioned which lays in the intersection of the two main remedies, which are the *quasi structural* remedies.[135]

There are various alternative definitions in the literature of structural versus behavioral remedies.[136] However, a core distinction can be identified between these two main types of remedies: the role of a structural remedy in an otherwise anticompetitive merger is to create or preserve legally and operationally independent firms to preserve competition in the affected market.[137] On the contrary, a behavioral remedy on the one hand allows integration, while obligatory operating rules are put in place with the purpose to prevent the merged firm from compromising market competition at a subsequent stage.[138] According to the magnitude of the threat, the behavioral remedies can be expressed in numerous different forms, including information firewalls, constraining the internal operation of the firm, or are focused on the firm's behavior concerning external rivals.[139]

Speaking about structural remedies, these are preferably expressed in the form of divestitures.[140] Particularly, the above choice can be explained since divestitures greatly contribute to the prevention of competition problems durably and permanently. Divestiture of a division or product or facility can lead to the creation of a new competitor or the empowerment of an

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[135] D. Tzouganatos, *Free Competition Law* (1st edn., Nomiki Bibliothiki, 2013), p.1.191.
[136] See S. Davies, B. Lyons, *Mergers and Merger Remedies in the EU: Assessing the Consequences for Competition* (Edward Elgar Publishing, 2008), Chapters 2, p.41–42.
[137] J. E. Kwoka, D. L. Moss, "Behavioral merger remedies: Evaluation and implications for antitrust enforcement" (2012), *57 (4) The Antitrust Bulletin 979*, p. 981.
[138] J. E. Kwoka, D. L. Moss, "Behavioral merger remedies: Evaluation and implications for antitrust enforcement" (2012), *57 (4) The Antitrust Bulletin 979*, p. 981.
[139] Structural and behavioral remedies can also be found in a combined version through a hybrid approach. It must be mentioned also that a number of remedies cannot be easily classified.
[140] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 241; See also the Directorate for Financial and Enterprise Affairs, Competition Committee, "Working Party No. 3 on Co-operation and Enforcement" (June 2011), DAF/COMP/WP3/WD(2011)59, available at https://ec.europa.eu/competition/international/multilateral/2011_jun_remedies.pdf, p. 5: "*Apart from divestitures of stand alone businesses and brands, the Commission's practice allows for other types of structural remedies, although statistically these cases amount only to a minority of our remedy cases.*".

existing competitor.[141] Thus, the competition which could be lost due to the merger is replaced.[142]

Sometimes, especially in high-tech markets, the competition problem needed to be solved may impose both structural and conduct relief.[143]

According to Article 23 of Regulation 1/2003, likely fines can be imposed as a supplement to the above legal tools, to the extent that fines can be considered as a substitutionary remedy since it compensates the 'general public' for the distortion of the competitive process. Another remedy that concerns the disgorging of monopolistic profits is not available as such in EU competition law. However, it is possible to be used in several national competition law systems.[144]

3.1. Preference for more structural remedies

According to the Notice, effective and successful implementation and monitoring of the commitments must be achieved. Though the EC enjoys broad discretion in selecting the suitable type for the commitments in each case,[145] paragraphs, 15 to 17 of the Notice is clearly expressed

[141] J. E. Kwoka, D. L. Moss, "Behavioral merger remedies: Evaluation and implications for antitrust enforcement" (2012), *57 (4) The Antitrust Bulletin 979*, p. 981.
[142] J. E. Kwoka, D. L. Moss, "Behavioral merger remedies: Evaluation and implications for antitrust enforcement" (2012), *57 (4) The Antitrust Bulletin 979*, p. 981.
[143] See M. Motta, *Competition Policy: Theory and Practice* (2004, Cambridge University Press).
[144] See, for example, in Germany, where the national authority may cut off economic benefits related to the infringement.
[145] Case T-177/04, easyJet Airline Co. Ltd v. Commission of the European Communities, 2006 II-01931, para. 197 and the cases cited therein.

the strong preference of the EC for structural remedies.[146] Nevertheless, the use of behavioral remedies cannot be excluded a priori and on a general basis.[147]

To indicate possible explanations for the view adopted by the EC on the matter, it is important to explore first the advantages of structural remedies. The direct character of addressing the competitive detriment, producing permanent changes of entities' structure, is one of the strongest elements of this kind of remedy.[148] Additionally, the lasting nature of structural remedies in connection with their well-timed implementation is frequently considered as safety valves in the process of safeguarding the conditions for the development of a new rival business or for enhancing current competitors.[149] Consequently, structural remedies are in general cost-efficient, since a very restricted ex-post monitoring is required.[150]

On the other hand, several disadvantages of behavior remedies must be noted. Particularly, the conditions of pre-merger competition which structural remedies are capable to solve are more desirable in comparison to the situation of post-merger regulation on which behavioral remedies are oriented to. Moreover, conduct remedies could increase transparency in the market, whereas they make tacit coordination a much easier choice. Lastly, the necessity of ongoing monitoring

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[146] R. Whish, D. Bailey, *Competition Law* (9th edn., Oxford University Press, 2018), p. 909. Further to this, see the Directorate for Financial and Enterprise Affairs, Competition Committee, "Working Party No. 3 on Co-operation and Enforcement" (June 2011), DAF/COMP/WP3/WD(2011)59, available at https://ec.europa.eu/competition/international/multilateral/2011_jun_remedies.pdf, p. 3: "*According to the case law of the European Courts, the basic aim of commitments is to ensure competitive market structures. Therefore, commitments which are structural in nature, such as the commitment to sell a business unit, are, as a rule, preferable from the point of view of the Merger Regulation's objective, because they prevent, durably, the competition concerns which would be raised by the merger as notified, and do normally not, moreover, require on-going monitoring measures*.".

[147] The possibility of behavioural remedies has been confirmed by the EU Courts in a number of judgments, eg Case C-12/03, P Commission v. Tetra Laval, 2005 I-00987, paras 85–89; for further discussion see A. Ezrachi "Behavioural Remedies in EC Merger Control—Scope and Limitations" (2006), *29 World Competition 459*.

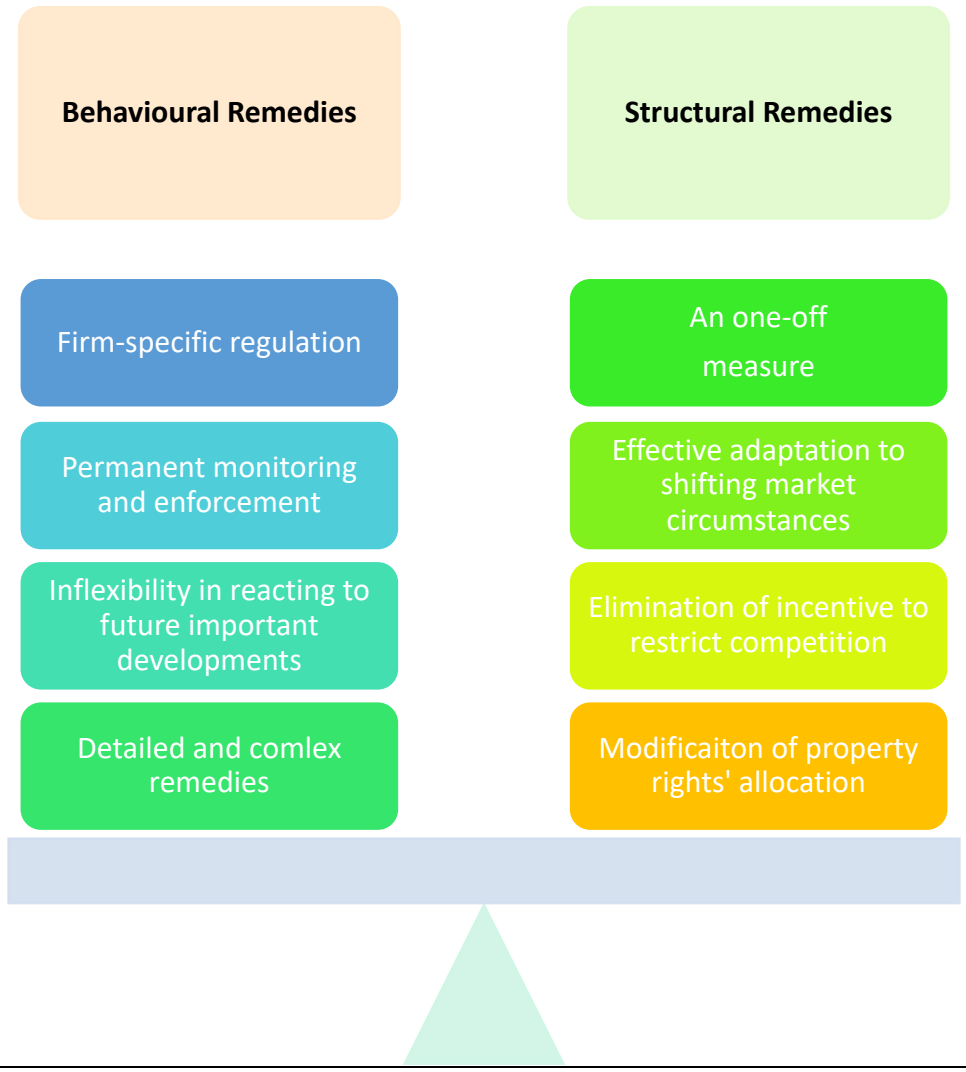
[148] A. Ezrachi, "Under (and Over) Prescribing of Behavioural Remedies", Working Paper (L) 13/05, The University of Oxford Centre for Competition Law and Policy, available at https://www.law.ox.ac.uk/sites/files/oxlaw/cclp_1_13-05.pdf, p. 2.

[149] A. Ezrachi, "Under (and Over) Prescribing of Behavioural Remedies", Working Paper (L) 13/05, The University of Oxford Centre for Competition Law and Policy, available at https://www.law.ox.ac.uk/sites/files/oxlaw/cclp_1_13-05.pdf, p. 2.

[150] A. Ezrachi, "Under (and Over) Prescribing of Behavioural Remedies", Working Paper (L) 13/05, The University of Oxford Centre for Competition Law and Policy, available at https://www.law.ox.ac.uk/sites/files/oxlaw/cclp_1_13-05.pdf, p. 2.

and enforcement for this kind of remedy renders them not an optimal choice. Hence, the EC confirms the exceptional character of this form of remedies, as commitments over future behavior of the relevant market entities which could be satisfactory *"in very specific circumstances"*.[151]

Chart 2 Behavioural versus structural remedies:[152]



[151] For an example of a merger clearance decision at Phase I based on behavioural remedies, see Case M.6564, ARM/Giesecke & Devrient/Gemalto/JV, paras. 214–237.

[152] The comparison presented in the above chart 2 is based on the analysis of F. P. Maier-Rigaud, "Behavioural versus Structural Remedies in EU Competition Law", Chapter 7, p. 207-224 in P. Lowe, M. Marquis, G. Monti (eds.), *European Competition Law Annual 2013: Effective and Legitimate Enforcement of Competition Law* (Hart Publishing, 2016), p. 209-211.

Along these lines, several NCAs, including HCC, have confirmed the prioritizing of this subcategory of structural remedies. Indeed, through its decisional practice, recent years indicate a move from the choice of behavioral remedies to the enforcement of divestitures, *"[…] as the main instrument of remedial action against foreseeable competition problems"*.[153]

What is more, conduct remedies likely have the potential of transforming themselves into a form of economic regulation.[154] Lastly, significant implementation and monitoring costs derive as regards this kind of remedies.[155]

Taking into consideration the high concentration rates, the EC has followed a strict approach concerning mergers in the energy industry.[156] This policy will be illustrated through several examples in the below analysis.

Chapter 2

Case-study analysis

1. Introduction

The EC has investigated several mergers involving undertakings in the energy sector.[157] It is envisaged that this section will contribute critical empirical insights into the current situation of some mergers undertaken in the energy industry, specifically to the extent that the commitments adopted by the EC has been effective or not in terms of preventing the possible negative impacts on the competition that these mergers may create. Research focus and the

[153] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 241.
[154] I. Lianos, "Competition law remedies in Europe", in I. Lianos, D. Geradin (eds.), *Handbook on European competition law* (Edward Elgar Publishing, 2013), p. 420.
[155] J. E. Kwoka, D. L. Moss, "Behavioral Merger Remedies: Evaluation and Implications for Antitrust Enforcement" (November 2011), American Antitrust Institute, available at http://www.antitrustinstitute.org/~antitrust/sites/default/files/AAI_wp_behavioral%20remedies_final.pdf, p.3–5.
[156] G. Drauz, T. Chellingsworth, H. Hyrkas, "Recent Developments in EC Merger Control" (2010), *1 Journal of European Competition Law & Practice 12*, p. 18.
[157] See e.g. Case M.3696, E.ON/MOL; Case M.4180 GDF/Suez; Case M.5224 EdF/ British Energy.

empirical site will be provided in determining the outcomes on mergers' practices, with emphasis on the implementation process and the quality of compliance of the merging entities with the remedies agreed in each case. Thus, selective evidence on the evolution of merger practices and the progress of the remedies imposed accordingly by the EC will eventually be indicated.

In this section, the impact of mergers remedies on maintaining effective competition in the EU will be explored. Packages of remedies in most of the cases involve wide-ranging structural divestments to eliminate competition concerns.[158] Based on the very specific nature of competition in energy markets, as it will be indicated through the below analysis, effective remedies are usually those that include actions such as the sale of price-setting generation plants, network assets, and controlling stakes in merging entities rivals.[159] Therefore, the outcomes of remedies' practices, with particular emphasis on various energy release schemes, the quality of these schemes, and the various auctions undertaken in the context of these implementation regimes will be in turn analyzed.

2. Competition assessment of European energy merger remedies

The EC has imposed significant remedies on energy merger cases since 2000, involving the implementation of several behavioral and structural measures (divestitures, capacity release programs, customer release programs, etc). In the first of these mergers (EDF /ENBW), the Commission imposed a VPP remedy to mitigate possible anti-competitive effects raised by the transaction. The next three cases (DONG/Elsam/E2, E.ON/MOL, Suez/GDF, in chronological order) were all approved subject to remedies after in-depth Phase II investigations.

[158] G. Federico, "The Economic Analysis of Energy Mergers in Europe and in Spain" (2011), *7(3) Journal of Competition Law & Economics 603*, p. 603.
[159] G. Federico, "The Economic Analysis of Energy Mergers in Europe and in Spain" (2011), *7(3) Journal of Competition Law & Economics 603*, p. 603.

2.1. EDF / ENBW

Starting with the first case study of the present analysis, in 2000, upon a notification according to Article 4 of the Council Regulation (EEC) No 4064/89 of an upcoming concentration, the undertaking Electricité de France ("EDF"), France, together with Zweckverband Oberschwäbische Elektrizitätswerke ("OEW"), Germany's fourth-largest electricity firm,[160] proceeded to the acquisition of the joint control of the undertaking Energie Baden-Württemberg AG ("EnBW"), under the prism of Article 3(1)(b) of the Merger Regulation. Accordingly, the EC's decision to start proceedings, in this case, was published.[161]

According to the EC decision, an enhanced dominant position of the merged entity in the French market would emerge because of the merger, since the elimination of potential competitors (Watt (CH) and ENBW (D)) would be recorded. In this context, the central purpose of the suggested commitments was found in the creation of the essential liquidity as the foundation for the maintenance of a functioning wholesale market, being in a suitable position to lower entry barriers or entrants. Consequently, a collusive outcome, due to the multimarket nature of those involved in this merger, could be avoided.[162]

Having in mind the aforementioned policy goal, the first remedy that was imposed by the EC concerned the withdrawal of the merged entity from CNR (F producer) and WATT (CH producer) and the introduction of a 6000 MW virtual power plant (VPP).[163] The VPP has comprised of three products: a base-load contract (4000 MW), a peak load product (1000 MW),

[160] M. Motta, M. Polo, H. Vasconcelos, "Merger Remedies in the European Union: An Overview" (January 2002), Paper presented at the Symposium on "Guidelines for Merger Remedies – Prospects and Principles", Ecole des Mines, p. 9.
[161] Article 6(1)(c) of the Merger Regulation.
[162] M. Motta, M. Polo, H. Vasconcelos, "Merger Remedies in the European Union: An Overview" (January 2002), Paper presented at the Symposium on "Guidelines for Merger Remedies – Prospects and Principles", Ecole des Mines, p. 9.
[163] M. Motta, M. Polo, H. Vasconcelos, "Merger Remedies in the European Union: An Overview" (January 2002), Paper presented at the Symposium on "Guidelines for Merger Remedies – Prospects and Principles", Ecole des Mines, p. 9.

and a power purchasing agreement (PPA) product (1000 MW) available in maturities from 3 months up to 3 years. More specifically, the availability of PPA products existed only in the winter months and demonstrated on the power purchasing agreements of EDF with co-generators. On the other hand, the two remaining load products constitute essential options to call electricity on the capacity purchased throughout the auction.

When it was acquired, the owners of the product can call partly or fully the energy on the capacity on Day-1. The specific purpose of this product design identified to imitate a dispatchable power plant. Importantly, throughout the auction bidding is set on a price for the capacity within each product group. Subsequently, before the action, EDF set a priori a strike price where energy is called (following the testimony taken from the Trustee).

Additionally, the supervision of the implementation of the remedies is assessed by a trustee appointed for this purpose. The trustee has control of the withdrawal from CNR and WATT and the design of VPP. He also responsible for the monitoring and the check of each auction, offering support to parties when a modification of remedy took place in 2006 (including the development of auctioning rules, alteration of auctioning products, etc.).

To begin with, the VPP could be generally characterized as well implemented and designed. Moreover, a positive effect could be identified in regards to the contracts, since they are arbitraged against other wholesale market products, successfully setting the price throughout the auction very close to the wholesale market price. As a result, the VPP possibly could be an alternative wholesale market sales route for EDF. In this direction, the effectiveness of the VPPs as an electricity alternative to EDF for the purchases of producers and traders was evident through a report which was grounded after an inquiry by the CRE took place. Thus, the basic purpose of the remedy was satisfied since the VPP significantly contributed to the formation of

a liquid electricity wholesale market in France's domestic market, lowering entry barriers accordingly.

However, one aspect of the aforementioned VPPs framework which was identified as less effective was the optional nature of the base and peak load products. In practice, the relevant rights on energy capacity which are purchased are exercised most of the time. Therefore, *"[...] the VPP products resemble de facto closely the standard contracts traded on Powernext and OTC contracts and do not imitate a dispatchable power plant"*. Consequently, the positive results of this optional character of the existing products which could mitigate market power are possibly restricted.

Bearing in mind the above analysis, specific alterations to the VPP were noted. These changes satisfied the need for up-date auction rules, taking into consideration the new developments of the French electricity wholesale market after the decision of the EC. The substitution of the PPA capacity product by baseload VPP contracts and the introduction of a 4-year baseload VPP contract were two of the most significant alterations to the previous regime.[164]

A further modification has occurred with the insertion of a four-year baseload VPP product. A base-load product with a longer duration was suggested by the EDF, since there was an apparent need for more market penetration, taking into consideration generally the development of the French wholesale market. After the conclusion of the effective test phase of the first year, this product will be integrated into the standard products accessible in the VPP.

[164] The PPA product refers to capacity, which is only available during winter months, based on EDF's commitments to off-take electricity originating from co-generation. These specific products did not enjoy popularity with VPP buyers, possibly because of the nature of the product, and more specifically, its time definition, as it did not strictly reflect other wholesale market products, making it more difficult to integrate this product in an electricity traders/suppliers' portfolio and to set up accordingly its market value. As a result, this was overcome in 2006 through the replacement of this product with an equivalent amount of more standard base load VPP product.

Conclusively, CNR progressed successfully by way of a separate generation and supply business. SUEZ, obtained a significant minority stake when EDF's divestiture was completed. CNR enlarged its market share in French supply markets and generation, as it became an independent and separate entity from EDF. However, the consequences on the downstream markets stay constrained, as the EDF purchased by the CNR the greater portion of its production.

2.2. DONG/Elsam/Energi E2

In 2005, the EC received a notification of a proposed acquisition undertaken by the Danish gas incumbent DONG who would proceed to the acquisition of the two significant Danish power generators (Elsam in the West; Energi E2 in the East) and of two electricity distribution companies, i.e. København Energi and Frederiksberg Elnet. After the completion of the first phase of the investigation, the EC concluded that from the suggested merger severe doubts were raised concerning the compatibility of this transaction with the common market and with the EEA Agreement[165] since the proposed merged entity could potentially reduce competition.[166]

Subsequently, the EC brought proceedings under Article 6(1)(c) of the Merger Regulation. The reasons for this decision were explained due to the significant anti-competitive effects on numerous natural gas markets that this corporate decision could bring.[167] More specifically, the proposed merger produced serious horizontal concerns (such as the removal of actual and potential competition on the gas wholesale and retail markets).[168] The EC in its notification notified also that this deal raised entry barriers on these markets and the enhanced DONG's

[165] G. Federico, "The Economic Analysis of Energy Mergers in Europe and in Spain" (2011), *7(3) Journal of Competition Law & Economics 603*, p. 608.
[166] G. Federico, "The Economic Analysis of Energy Mergers in Europe and in Spain" (2011), *7(3) Journal of Competition Law & Economics 603*, p. 608.
[167] See "Gas: A EU Law, Mergers", in *Butterworths Competition Law Service* (LexisNexis UK), p. 1653.
[168] *Butterworths Competition Law Service* (LexisNexis UK), p. 1653.

capability to raise its competitors' costs for storage and flexibility.[169] On the other hand, vertical concerns were also mentioned by the EC concerning this merger, since a foreclosure of a vital division of the Danish demand for natural gas would take place. It must also be noted that the real or expected harm of competition was explained in the development of convergence to a great extent between gas and electricity retail offers, referring to both residential and industrial consumers.[170]

A package of remedies was provided by DONG for the EC to clear the merger when Phase II of the investigation was completed. The merging parties agreed to (i) storage divesture and (ii) a gas release program.

The first remedy aimed to address the competition concerns in the storage/flexibility markets. Thus, DONG agreed to fully divest its gas storage facility in Lille Torup, which constituted the greater of DONG's two storage facilities,[171] offering a working volume of at least 400 million m3 (mcm) and at the same time a total storage gas volume of 710 mcm.[172]

A daily injection and withdrawal capacity is amounting accordingly to 3.6 and 7 mcm.[173] The Business produced by the divestiture incorporates the employees and all assets connected with the Lille Torup storage facility, including all tangible and intangible assets (such as intellectual property rights), all licenses, permits, authorizations, contracts, leases, commitments, customer orders, and customer, credit and other records.[174]

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[169] *Butterworths Competition Law Service* (LexisNexis UK), p. 1653.
[170] G. Federico, "The Economic Analysis of Energy Mergers in Europe and in Spain" (2011), *7(3) Journal of Competition Law & Economics 603*, p. 610.
[171] See "Gas: A EU Law, Mergers", in *Butterworths Competition Law Service* (LexisNexis UK), p. 1653.
[172] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 225.
[173] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 225.
[174] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 225.

Furthermore, DONG agreed to enter into an Interconnection and Operating Balancing Agreement with the Danish TSO (Energinet. dk) to guarantee that the terms of use by Energinet. dk of DONG's storage facilities at both Danish storage facilities would not be less favorable in comparison with the pre-merger market environment.[175] Satisfying the terms of the divestiture concerning the Divestiture Business, the purchaser must enter into DONG's position in that agreement with Energinet. dk. DONG agreed to become involved in a final sale and purchase contract with a suitable buyer for the Divestiture Business, under a concrete time limit (six months from the date of the adoption of this decision).

"If by the end of that period, DONG has not entered into such an agreement, the Divestiture Trustee will have an exclusive mandate to sell the Divestiture Business within the following three months. The purchaser has to be approved by the Commission. A time limit for this purchase was set."[176]

When the final binding sale and purchase agreement would be concluded, the purchaser would be the only capable person to sell storage capacity in the Lille Torup storage facility for the gas storage year 2007/2008, running between 1 May 2007 to 30 April 2008. DONG commitment includes also an obligation of not acquiring with either direct or indirect means any influence over fully or partially of the Divestiture Business, for 10 years starting from the closing of the sale to the purchaser, except for any conclusion from the EC that the market structure has been modified in a way that permits to a re-acquisition.

Handling the competition concerns of the merger, DONG further to the above agreed for a gas release program to make natural gas available to third parties, addressing horizontal concerns

[175] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 225.
[176] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 225-226.

connected with the loss of competition in several retail gas markets.[177] Accordingly, under the mandate of creating a virtual rival to the merged entity,[178] the amount of gas to be released would be 400 mcm per year, put in the auction in the years 2006 to 2011. Under the amended content of the Commitments, the volumes released would be separated into 10 lots of 40 mcm annually to be distributed equally at each delivery period.[179] If the market conditions alter to a great extent, DONG has the option to ask the EC for the conditional termination of the Gas Release Programme.

As far as the auction process concerns, the Gas Release Programme consist of two steps. The first one, namely "Primary Auctions", refers to the period that lasts no later than April (2006-August) and the "Secondary Auctions" which are foreseen to take place in June (2006-October) of the same year.

Throughout the "Primary Auction", gas will be offered from DONG at the virtual trading point/hub in Denmark (GTF). In exchange, gas will be provided by successful bidders to the same volume of gas to DONG. The "Primary Auction" constitutes the decisive factor concerning the swap fee which gives us the meeting point where demand encounters the number of auctioned lots.[180] To invite bidders, DONG would proceed to the payment of a separate "compensation" fee of a minimum amount of 0.33 EUR/MWh to each successful bidder.[181] This fee can be counterweighed with the exchange fee which every bidder will get through the

[177] G. Federico, "The Economic Analysis of Energy Mergers in Europe and in Spain" (2011), *7(3) Journal of Competition Law & Economics 603*, p. 615; See also "Gas: A EU Law, Mergers", in *Butterworths Competition Law Service (LexisNexis UK),* p. 1653.
[178] G. Federico, "The Economic Analysis of Energy Mergers in Europe and in Spain" (2011), *7(3) Journal of Competition Law & Economics 603*, p. 619.
[179] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 226: "*The volumes correspond to a significant proportion of DONG's sales in Denmark in 2005 and approximately 10% of total Danish consumption*.".
[180] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 226.
[181] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 226.

auction. The purpose of the "compensation" fee is to "compensate" for possible price disparities between the GTF and the other hubs. A division of the gas will follow into 10 identical lots of 40 mcm each and an auction based on the swap fee.[182] All bidders cannot bid once but they need to do more bids than half of the lots auctioned in one year (Primary and Secondary Auction combined).[183]

Flexibility is offered through the *Gas Release Programme* (both for the Primary and Secondary Auction). To this end, a take-or-pay obligation of 90% concerning the contract quantity of each year and with daily minimum and maximum rates of 50% and 110% is provided, as far as the daily contract quantity is concerned. Nevertheless, this program must provide additional flexibility to the market *"[…] by allowing the successful bidders to choose to swap flexibility by providing DONG with the same flexibility terms at the respective re-delivery point as they wish to obtain from DONG at the GTF."*.[184]

The remaining unsold quantities from the Primary Auction will be sold in a Secondary Auction to be organized at a later stage of the same year. During the Secondary Auction, DONG provides gas quantities to third parties in Denmark in exchange for cash payment, a different case than the previous re-delivery of the gas regime. Also, the remaining lots of the Secondary Auction will be transferred to the next year's Primary Auction.[185]

In addition, beyond the above Commitments, *a customer release clause* was also agreed upon. Under this clause, the current direct customers of DONG who took part in the auction process or bought gas from a trader or wholesaler who acquired lots in the auction can diminish their

[182] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 226-227.
[183] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 227.
[184] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 227.
[185] In the Secondary Auction, a minimum price is to be set as a certain percentage of an indexation reflecting the structure of the indexation of DONG's contracts for purchase of gas from the Danish sector of the North Sea.

contractual purchase obligation against DONG, through the quantity of gas they will have obtained during the Gas Release Programme.[186]

A mediation procedure can be put in place to guarantee the compliance of DONG with the commitments when a third party reasonably suggests that the entity has not followed the agreed terms of these commitments. Under this prism, a Monitoring Trustee will supervise the possible establishment and functioning of a mediation procedure, providing them with the necessary powers to reassure the effective work of its members.[187]

After the submission of the first package of remedies by the DONG in 2006, the relevant test of the market demonstrated the necessity for various improvements.[188] Those improvements were related to the flexibility provisions of the gas release, lot sizes, auctioning provisions, pricing issues, etc..[189] In this context, an amendment of the commitments took place and DONG submitted a final package. At this final stage, two appointed trustee functions were required: (1) a storage divestiture monitoring trustee and (2) an auction monitoring trustee. The EC accepted the suggestion expressed by DONG for the same firm for both trustees and their mandates were agreed and signed accordingly.

The Trustees should report regularly to the EC on the implementation of the Commitments. Though the intense character of the monitoring process undertaken by the Trustees, the correct and successful implementation of the remedies was accomplished.

[186] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 227.
[187] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216,* p. 227: "[…] who will be entitled, under certain conditions, to appoint additional professionals to assist in the mediation process.".
[188] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 227.
[189] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 227.

When the auctions were concluded, the trustees asked for the views of the interested bidders on the conduct of the auction to identify possible weaknesses in the process and functioning of the auctions. Indeed, the outcome of the above evaluation process was adequate. All relevant market monitoring reports published by the Trustees are the products of adequate and thoughtful research work, undertaken in collaboration with the interested parties, through questionnaires sent to market participants.

The adequate and clear character of the Commitments analyzed above led eventually to their effective implementation. Indeed, the storage divestment has taken place during the initially planned divestment period and the gas release auctions scheduled were successful, as all volumes were sold. Therefore, the EC cleared the merger after the careful consideration of the commitments and the conclusion that they were sufficient in their objective to remedy the competition problems acknowledged in the first place when the assessment of the impact of the notified concentration occurred.

2.3. EON / MOL

A third crucial case of mergers remedies imposed by the EC concerns the proposed concentration through which the undertaking E.ON Ruhrgas International AG (“ERI”) acquires completely control over the undertakings MOL Földgázellátó Rt. (”MOL WMT”, Hungary) and MOL Földgáztároló Rt. (“MOL Storage”, Hungary),which was previously exclusively under the control of MOL Hungarian Oil and Gas Rt. (“MOL”, Hungary), through the action of purchase of shares. ERI also obtained control over MOL’s shareholdings in Panrusgáz Magyar-Orosz Gázipari Rt. (“Panrusgáz”, Hungary), a joint venture company between OAO Gazprom (“Gazprom”, Russia) and MOL.[190]

[190] M. L. Polemis, A. Oikonomou, “How effective are remedies in merger cases? A European and national assessment” (2018), *14 (2-3) European Competition Journal 216*, p. 229.

The EC having examined the notification, concluded that the transaction at stake falls within the scope of the Merger Regulation, while concerns have emerged in the framework of its compatibility with the competition rules of the common market. The transaction at first glance could develop crucial impediments to effective competition in the relevant markets. Hence, the EC determined that as a result of the proposed transaction E.ON could put it in the suitable position, enabling it to use its control over gas resources in Hungaryto increase its market power to control prices and other trading conditions on the downstream markets for inter alia the supply of gas to industrial, commercial customers and residential customers, the generation-wholesale supply of electricity and the supply of electricity to industrial, commercial customers and residential customers.[191]

To address the concerns recognized by the EC, E.ON proposed remedies. The suggested remedies could lead to the full ownership unbundling of gas production and transmission activities, which were reserved by MOL at that time, from gas wholesale and storage activities which were obtained by E.ON, throughout the undertaken divestiture by MOL of its remaining minority interest in MOL WMT and MOL Storage.[192] The commitment package included the following five categories: (i) ownership unbundling, (ii) put option related to MOL Transmission, (iii) a gas release program, (iv) contract release, and (v) access to storage.

The overall purpose of the *ownership unbundling* remedy was to relieve the competition concerns expressed by the EC concerning MOL's incentives, particularly emerging from its subsidiary MOL Transmission and its branch MOL E&P to adopt a more favorable position towards MOL WMT, providing to this entity access to the transmission network, and MOL

[191] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 229.
[192] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 229.

Storage, giving access to future storage sites accordingly.[193] The parties agreed that MOL would divest the rest of its shareholdings of 25% + 1 share in MOL Storage and MOL WMT over six months after the transaction. Furthermore, MOL would not obtain direct or indirect minority stakes at MOL WMT and MOL Storage. The aforementioned obligation will last for 10 years, specifically for the period E.ON holds the majority of shares of those companies.

As far as the *put option* is concerned, the purpose of this remedy was to guarantee that a possible acquisition of a shared interest in MOL Transmission by E.ON. would be the objective of a merger control review undertaken by the relevant national competition authority.[194] Under the signed agreements concluded between MOL and E.ON., MOL would be provided a 2-year put option. According to this agreement, E.ON. could be obliged to purchase a 25% + 1 share or a 75% – 1 share interest in MOL Transmission. Under the undertakings, MOL will not exercise the put option for the 25% + 1 share interest in MOL Transmission. Moreover, MOL must avoid selling to E.ON or any of its affiliates, within 10 years, since E.ON constitutes the majority shareholder of MOL WMT and MOL Storage. The prospect of a shared interest in MOL Transmission cannot lead to the acquisition of exclusive control over MOL Transmission by E.ON or any joint control over MOL Transmission by E.ON and MOL.

Proceeding now to the *gas release program*, through this scheme efficient competitive alternatives for access to gas on the Hungarian gas and electricity markets were guaranteed, regardless of the parties and under competitive conditions.[195] Hence, the prevention of the new entity from foreclosing access to gas resources for its downstream competitors in the gas and electricity markets was achieved. E.ON would implement a gas release program within 8 years

[193] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 229.
[194] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 229.
[195] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 230.

(1 billion cubic meters ("bcm") per year) and divest half of its 10-year gas supply contract with MOL E&P through a contract release (for further details on the matter see below). As a result, a relief of 16 bcm until 2015 is expected, up to 2 bcm per year, which is equal to 14% of Hungarian consumption.

The duration of the gas release program beginning in 2006 was 8 years. It is important to mention that E.ON's affiliates cannot take part, directly or indirectly, in the auctions.[196]

Gas supply contracts would be signed between the successful bidders and E.ON. Under the terms and conditions of these contracts, the gas will be split over two years into equal amounts and delivered at the two Hungarian entry points (80% at the Eastern entry point and 20% at the Western entry point).[197] The gas supply contracts are expected to offer similar flexibility in comparison with MOL WMT's upstream gas supply contracts, particularly annual flexibility of 85% since the purchaser must buy and pay only 85% of the agreed gas quantity per year.

Concerning the starting price of each annual auction, this will be set at 95% of the weighted average cost of gas of MOL WMT ("WACOG").[198] The calculation of the WACOG will obtain the verification of the Hungarian Energy Office ("HEO").

The remaining unsold quantities in a specific auction must be reoffered with one-third of the quantities each in the following three auctions.[199] No auction for quantities that will be not sold will occur after 2014. The HEO and a Monitoring Trustee are both responsible for the auctions and the implementation of the gas release program.

[196] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 230.
[197] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 230.
[198] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 231.
[199] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 231.

Also, E.ON must grant the existing direct customers of MOL WMT and E.ON (KÖGÁZ and DDGÁZ), i.e. the people who take part in the auction or buy gas from a participant trader/wholesaler in the auction the right of diminishing their obligation to purchase natural gas from MOL WMT and E.ON with the amount of gas which they would obtain directly or indirectly from the gas release program.[200] Access to storage must be offered also from E.ON to those purchasers at regulated prices and conditions.

Additionally, E.ON committed to adjust and improve the implementing framework based on the acquired from the annual auction experience, enhancing simultaneously the efficiency of the gas release programme.

E.ON agreed to transfer to a third party (the "Third Party") the 50% half of its contractual rights between MOL WMT and MOL E&P for the supply of domestic gas ("Supply Contract").[201] When the contract assignment will be signed, the Third Party will be given completely the rights and obligations of MOL WMT, according to the Supply Agreement concerning the part assigned to it. The assignment will last as long as the Supply Contract is effective.

Moreover, MOL would offer equal treatment to MOL WMT and the Third Party concerning the Supply Contract flexibility provisions.[202] In this context, the assignment to the Third Party of 50% of the contract must be approved by the EC and the HEO's. It must be also mentioned that the Third Party cannot, in any case, buy the minority interests of MOL's in MOL WMT and MOL Storage.

[200] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 231.
[201] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 231.
[202] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 232.

Further to the above, E.ON has to grant access to storage capacities under regulated prices and conditions to end-users and wholesalers that purchase gas directly through the gas release program or the contract release.[203] More specifically, E.ON proceeded with offering access to sufficient storage capacities for those end-users and wholesalers. The same condition applies to those purchasing gas for the first time or expresses an enhanced demand for storage in the framework of the gas release program or the contract release.

In any case, according to the HEO resolution, E.ON is obliged to implement a storage development scheme. The first package of commitments submitted by E.ON (2005) was modified twice, after taking into consideration the market testing.

"The final commitments were substantially improved compared to the first package offered by E.ON, in particular as regards the duration of the gas release program and the price mechanism of the gas release auctions."[204]

After the completion of the first auction for the Gas Release Programme took place, almost half of the released gas quantity was sold. Unfortunately, several released volumes remained unsold, due to the non-competitive auction price in comparison with the low public utility prices in Hungary, and the fact that the Hungarian gas market has not been entirely liberalized so far. It is important to note that the EC has harmonious cooperation with the Hungarian Energy Office (HEO), to assess E.ON's implementation of the auctions. Lastly, the second auction successfully took place, and all gas was sold.[205]

[203] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 232.
[204] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 232.
[205] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 232-233.

Concerning Contract Release, sale contracts concluded between EFT (or the previously named MOL WMT), MOL (the gas producer MOL E&P), and Tigáz, within the established deadline.[206] The candidate purchaser obtained the acceptance of EC. Subsequently, ownership unbundling was implemented, complying fully with the Commitments, when E.ON acquired MOL's remaining 25% shareholding in MOL WMT and MOL Storage (2006).

Finally, the implementation of the remedy can be characterized as relatively successful, because all gas quantities were sold during the second auction of the GRP.[207] Moreover, no indication suggests that the gas used by purchasers for export trading, a development that could potentially undermine the remedies' effectiveness. On the contrary, the main undertaking companies of the gas quantities were doing business in the gas sector in Hungary.

3. Recent cases: a confirmation of structural remedies selection

According to two recent cases, namely Nidec's and Lotos' cases, the pattern of prioritization of structural remedies is confirmed and reiterated, since merging entities and the EC are more prone to selecting structural remedies, due to the advantages analyzed above.

3.1. Case M.8947, Nidec/Whirlpool (Embraco Business)

Firstly, concerning the acquisition by Nidec of Embraco,[208] leading to the merging of two leading global producers of refrigeration compressors used in household and light commercial appliances, after an in-depth market investigation, the EC expressed concerns about the transaction as notified would have reduced competition and resulted in higher prices and less choice in the relevant markets of refrigeration compressors.[209] The merging entities proposed

[206] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 233.
[207] M. L. Polemis, A. Oikonomou, "How effective are remedies in merger cases? A European and national assessment" (2018), *14 (2-3) European Competition Journal 216*, p. 233.
[208] Case M.8947, Nidec/Whirlpool (Embraco Business), 12.4.2019.
[209] Case M.8947, Nidec/Whirlpool (Embraco Business), 12.4.2019, p. 51-52.

remedies to address these competition concerns. The important thing in this set of remedies, beyond the expected presence of divestitures for crucial aspects of applications of refrigeration compressors, is found in the significant funding offered by the merging entities to the purchaser of the divested business for future investments in the facilities.[210] This additional element, in this case, was considered a guarantee of the future viability and competitiveness of the proposed divestiture.[211]

3.2. Case M.9014, PKN Orlen/Grupa Lotos

In the same vein, in Lotos' case, where the proposed merger aimed at combining PKN Orlen and Grupa Lotos ("Lotos"),[212] two large Polish integrated oil and gas companies, being both active in Poland and several other Central and Eastern European and Baltic countries, the EC for one more time expressed its general preference over divestitures and structural remedies.[213] Thus, through the mixture of divestitures and other remedies proposed, the divested entities would satisfy the conditions of effective future competition among the purchasers and other competitors with the merged business in the relevant markets.[214] Specifically, in the wholesale diesel and gasoline markets, the buyer of the stake in the refinery will be enabled to import important volumes due to the larger access to infrastructure.[215] As a result, thanks to this combination of refining capacity and import prospective quantities, the purchaser will exercise a competitive control similar to that of the combined entity before the merger took place.[216]

[210] Case M.8947, Nidec/Whirlpool (Embraco Business), 12.4.2019, p. 71.
[211] Case M.8947, Nidec/Whirlpool (Embraco Business), 12.4.2019, p. 72.
[212] Case M.9014, PKN Orlen/Grupa Lotos, 14.07.2020.
[213] European Commission, "Mergers: Commission clears Lotos' acquisition by PKN Orlen, subject to conditions", (14 July 2020), available at https://ec.europa.eu/commission/presscorner/detail/en/IP_20_1346.
[214] European Commission, "Mergers: Commission clears Lotos' acquisition by PKN Orlen, subject to conditions", (14 July 2020), available at https://ec.europa.eu/commission/presscorner/detail/en/IP_20_1346.
[215] European Commission, "Mergers: Commission clears Lotos' acquisition by PKN Orlen, subject to conditions", (14 July 2020), available at https://ec.europa.eu/commission/presscorner/detail/en/IP_20_1346.
[216] European Commission, "Mergers: Commission clears Lotos' acquisition by PKN Orlen, subject to conditions", (14 July 2020), available at https://ec.europa.eu/commission/presscorner/detail/en/IP_20_1346.

Therefore, the EC proceeded to a clearance decision, after the submission and full compliance of the proposed remedies, which would no longer raise competition concerns.

Bearing in mind the aforementioned recent developments, it can be concluded that structural remedies and more specifically divestitures are almost always present in most of remedies packages that are proposed by merging parties or the EC itself when Phase 2 investigation takes place.

Chapter 3

Critical assessment of the merger remedies

Undoubtedly, remedies constitute vital instruments of merger control, since through them a clearance is achieved rather than a prohibition for many cases in which competition concerns are raised. As a matter of fact, according to the statistical data available online on the DG COMP website, just 24 transactions have been noted with a prohibition since 1990.[217] According to the same data, the overall percentage of mergers cases, where intervention by the EC was recorded to maintain effective competition in the single market,[218] has been stable at approximately 5% to 8% of all notified mergers under the period of the most recent review (2014). Although fluctuations of this ratio may be identified, taking into consideration the specific nature of the merging activities reported to the EC, the stability element confirms the indication of the maturity of the current regime.[219]

[217] European Commission, "White Paper: Towards more effective EU merger control", Commission Staff Working Document, SWD(2014) 221 final, 9.7.2014, p. 13.
[218] These cases include mergers cleared in Phase I or in Phase II with commitments, prohibitions as well as mergers abandoned after the opening of an in-depth investigation.
[219] European Commission, "White Paper: Towards more effective EU merger control", Commission Staff Working Document, SWD(2014) 221 final, 9.7.2014, p. 13.

According to the EC's additional revision of its practice concerning remedies through the 2008 Remedies Notice, [220] it is explained that a divestiture commitment constitutes the most optimal way under which elimination of competition concerns can be achieved, being at the same time the "benchmark" against which the appropriateness of other recommended remedies must be assessed.[221] To a great degree, the Notice issued in 2008 has the objective of adopting a more standardized approach regarding remedies, while turning the attention towards their effectiveness.

Bearing in mind the above developments and despite the widely accepted view that the Merger Regulation functions adequately, fulfilling its purpose,[222] room for improvements being noted regarding specific domains of its scope. Taking into consideration the two public consultations round that the EC had completed, leading to the corresponding reports (2005, 2014), fruitful proposals emerged concerning areas that are considered problematic or at least less effective than others and needed a review or amendments.

The present thesis identified several proposals concerning the design and implementation of the remedies through which additional steps of improvement may be taken. The main suggestion concerns structural remedies and specifically divestitures. In this direction, it is argued that the scope of the divested entity must be defined through a process of deep scrutiny to guarantee the temporary continuation of the interesting business as long as the procedure of divestiture will last.[223] At the same time, competition authorities need to ensure the approval of sufficient

[220] Commission Notice on remedies acceptable under Council Regulation (EC) No 139/2004 and under Commission Regulation (EC) No 802/2004 (OJ C 267, 22.10.2008, p. 1).
[221] See Commission Notice on remedies acceptable under Council Regulation (EEC) No 4064/89 and under Commission Regulation (EC) No 447/98 (OJ C 68, 2.3.2001, p. 3), which updated and refined an earlier Notice from 2001.
[222] European Commission, "Mergers: Commission consults on possible improvements of EU merger control rules" (9 July 2014), Brussels, available at https://ec.europa.eu/commission/presscorner/detail/en/IP_14_801, p. 2.
[223] See on that suggestion the proposal made by the EC in "Mergers: Commission revises Remedies Notice and amends Merger Implementing Regulation" (22 October 2008), Brussels, IP/05/1327.

buyers.[224] Finally, one of the most crucial factors in merger analysis is recognized in the question of how the relevant authorities can reassure effective monitoring of the implementation of the remedies.[225]

1. Outlook: Fostering the level playing field, cooperation, and coherence-convergence

The Merger Regulation has indeed succeeded at enhancing the regulatory playing field, offering a 'stop-shop scrutiny' framework for mergers across the Union.[226] Nevertheless, MSs possess their significant role in merger control enforcement at the EU level, [227]as it is confirmed by statistical data, which shows that between 2001 and 2007, NCAs handled approximately 4,000 merger cases annually on average.[228] Consequently, several conditions must be fulfilled to reach a completely functional system for mergers control in the EU. It is then crucial to reassure efficient work-sharing, cooperation, and the convergence between the central regulatory organ, the EC, and the NCAs of MS responsible for exercising merger control.[229]

Despite the convergence achieved so far concerning rules and practices adopted by NCAs and EC on merger control through the imposition of remedies,[230] the central goal of harmonization has not yet fully been achieved.[231] Noteworthy points of divergence among MSs include inter alia national laws which permit a government to refuse to follow an NCA's negative decision, which is based on competition merger control rules, through the invocation of national merger

[224] Ibid.
[225] Ibid.
[226] European Commission, "White Paper: Towards more effective EU merger control" (2014), Commission Staff Working Document, SWD(2014) 221 final, p. 14.
[227] European Commission, "White Paper: Towards more effective EU merger control" (2014), Commission Staff Working Document, SWD(2014) 221 final, p. 14.
[228] European Commission, "White Paper: Towards more effective EU merger control" (2014), Commission Staff Working Document, SWD(2014) 221 final, p. 14.
[229] All Member States with the exception of Luxembourg.
[230] See further on these developments in European Commission, "White Paper: Towards more effective EU merger control" (2014), Commission Staff Working Document, SWD(2014) 221 final, p. 14-15.
[231] European Commission, "White Paper: Towards more effective EU merger control" (2014), Commission Staff Working Document, SWD(2014) 221 final, p. 15.

control law and specifically other, so-called, public-interest considerations. Interventions of this kind are rarely recorded, however, examples of such policy decisions can be found in France, Germany, Italy, and Spain.[232]

Consequently, according to the conclusions of the White Paper issued by the EC, it is vital to form a completely level playing field between the EC and NCAs, achieving larger convergence for the actions of these regulatory bodies and avoiding inconsistent results.[233] A proposal for an initiative of legislative harmonization has been promoted recently by several NCAs.[234] Thus, the EC and MS must enhance their cooperation and common experience through the maintenance of ongoing alignment of their corresponding practices, whilst taking advantage of all accessible instruments and forums, for instance, the Merger Working Group.[235] Additionally, NCAs must strengthen their collaboration on individual cases.[236]

2. Solving possible problems under divestitures schemes

According to researchers' report, including Parker and Balto (2000) and FTC (1999), it was held that structural remedies may do not follow the common successful path through several ways, since a group of informational asymmetries and incentives of the involved entities identified not agree with the overall purpose of this kind of remedies, i.e., the restoration of competition.[237]

[232] European Commission, "White Paper: Towards more effective EU merger control" (2014), Commission Staff Working Document, SWD(2014) 221 final, p. 15.
[233] See Recital 14 of the Merger Regulation that emphasizes cooperation and deals with referral and competence.
[234] European Commission, "White Paper: Towards more effective EU merger control" (2014), Commission Staff Working Document, SWD(2014) 221 final, p. 15-16.
[235] European Commission, "White Paper: Towards more effective EU merger control" (2014), Commission Staff Working Document, SWD(2014) 221 final, p. 16.
[236] European Commission, "White Paper: Towards more effective EU merger control" (2014), Commission Staff Working Document, SWD(2014) 221 final, p. 16.
[237] R. Parker, D. Balto, "The Evolving Approach to Merger Remedies" (2000), Antitrust Report, available at http://www.ftc.gov/speeches/other/remedies.htm.

First and foremost, it is very reasonable that the incentives of the merging entities are driven by the need to reassure that the purchaser of the divested assets will not constitute a rival firm.[238] This may create several issues,[239] including inter alia a possible incentive for the seller to decrease the value of these assets, when they are put for sale and hemanages them, through certain ways, including the transfer of vital personnel, the disposition of specific brands, patents, and other activities, or preserved through a non-appropriate way the production plants or shop locations.[240] Another problem is that the divesting entity has low incentives to detect a suitable purchaser, possibly invoking a great extent a different set of criteria from those that a competition authority will use to choose the latter.[241]

The EC considered all these matters. As a result, the EC Notice was issued. Under this Notice, the important figures of the 'hold separate trustee' and the 'divestiture trustee' were established, replacing the EC in the process of guaranteeing any engagement by the seller in improper activities, avoiding in this way any diminution of the value or obstacles of the assets to the sales.[242]

Secondly, according to the FTC ex-post report on merger remedies, it was concluded that the mix-and-match approach is relatively successful in promoting entry, for several reasons.[243] A possible explanation for this development is that a high portion of informational asymmetries

[238] M. Motta, M. Polo, H. Vasconcelos, "Merger Remedies in the European Union: an Overview" (17 February 2002), paper presented at the Symposium on "Guidelines for Merger Remedies – Prospects and Principles", Ecole des Mines, p. 6.
[239] M. Motta, M. Polo, H. Vasconcelos, "Merger Remedies in the European Union: an Overview" (17 February 2002), paper presented at the Symposium on "Guidelines for Merger Remedies – Prospects and Principles", Ecole des Mines, p. 6.
[240] Parker and Balto mention a case where the seller purposedly acted so as to decrease significantly the value of the assets to be divested. Although it was later sued and fined, they argue that this strategy was more profitable than having a dangerous competitor in the industry.
[241] M. Motta, M. Polo, H. Vasconcelos, "Merger Remedies in the European Union: an Overview" (17 February 2002), paper presented at the Symposium on "Guidelines for Merger Remedies – Prospects and Principles", Ecole des Mines p. 6.
[242] The trustees and their mandate must be approved by the EC; See EC Notice, paras. 50-58, for more details.
[243] M. Motta, M. Polo, H. Vasconcelos, "Merger Remedies in the European Union: an Overview" (17 February 2002), paper presented at the Symposium on "Guidelines for Merger Remedies – Prospects and Principles", Ecole des Mines, p. 6.

is identified between the seller and the buyer. Also, the problem is recorded concerning the sales of continuing firms.[244] According to the research on the matter, when the divested business is new in the relevant market, being not operative previously in the industry, it is difficult to be aware of the regime needed to be an effective competitor in each specific market. This could lead to a package of assets that is characterized as very problematic in satisfying the conditions of a successful market player.[245] The problem deteriorates, since the seller is demotivated to exercise any effort to design a framework that includes the suitable assets, enhancing the position of its rival, and on the other hand *"[…] a competition authority is not an industry regulator and has thus limited expertise in any given sector"*.[246]

Third, the study underlines that whenever some relationships were needed between the seller and the buyer of the divested assets (for instance, if the buyer needs a supply of certain inputs or technical assistance) the remedy did not manage to restore competition.[247] In the FTC study, in thirteen out of the nineteen cases reviewed where there existed such a relationship, either the buyer did not manage to operate effectively, or there was collusion between the two firms. (Parker and Balto (2000, 6/19)). The same difficulties arise when technology transfers are an integral part of the divestiture: the combination of the informational disadvantage of the buyer, who does not know the technology, and the seller's lack of incentives to provide the buyer with

[244] The demanding mandate of reassuring viability of the new entity is most of the times undertaken by assigning to the merging entities the burden of action: even if competitive concerns are introduced by the enforcer, the merging entities should demonstrate a remedy plan that will be examined, discussed, amended and perhaps confirmed by the Authority. Despite that this sequencing can be effective, it becomes evident that the asymmetry in information among the proposing entities and the Authority is still unsolved through leaving the entities the first movement.

[245] M. Motta, M. Polo, H. Vasconcelos, "Merger Remedies in the European Union: an Overview" (17 February 2002), paper presented at the Symposium on "Guidelines for Merger Remedies – Prospects and Principles", Ecole des Mines, p. 6.

[246] M. Motta, M. Polo, H. Vasconcelos, "Merger Remedies in the European Union: an Overview" (17 February 2002), paper presented at the Symposium on "Guidelines for Merger Remedies – Prospects and Principles", Ecole des Mines, p. 6.

[247] M. Motta, M. Polo, H. Vasconcelos, "Merger Remedies in the European Union: an Overview" (17 February 2002), paper presented at the Symposium on "Guidelines for Merger Remedies – Prospects and Principles", Ecole des Mines, Paris, p. 7.

assistance and know-how, imply that technology transfers often do not achieve the desired results.[248]

Lastly, the merging entities are fully incentivized to choose a buyer who is perfectly able to ensure its market position.[249] However, the same level of certainty does not exist when an 'aggressive' buyer will take the responsibility to assure the divested assets.[250] Thus, it is not guaranteed through an auction that the best possible result concerning welfare's aspect will be achieved,[251] as *"[…] the identity of the buyer is therefore crucial, not only for the viability of the business but also to make sure that the purchaser will be an effective competitor"*.[252] Consequently, it is important to embrace a systematic approach to select an upfront buyer.[253] In this context, competition authorities must proceed to a complete evaluation of the crucial question, i.e. whether it is more or less possible for a prospective buyer to secure effective competition through its business activities since an appointed trustee cannot effectively make decisions on this kind of issues.[254]

[248] M. Motta, M. Polo, H. Vasconcelos, "Merger Remedies in the European Union: an Overview" (17 February 2002), paper presented at the Symposium on "Guidelines for Merger Remedies – Prospects and Principles", Ecole des Mines, p. 7.
[249] M. Motta, M. Polo, H. Vasconcelos, "Merger Remedies in the European Union: an Overview" (17 February 2002), paper presented at the Symposium on "Guidelines for Merger Remedies – Prospects and Principles", Ecole des Mines, p. 7.
[250] M. Motta, M. Polo, H. Vasconcelos, "Merger Remedies in the European Union: an Overview" (17 February 2002), paper presented at the Symposium on "Guidelines for Merger Remedies – Prospects and Principles", Ecole des Mines, p. 7.
[251] M. Motta, M. Polo, H. Vasconcelos, "Merger Remedies in the European Union: an Overview" (17 February 2002), paper presented at the Symposium on "Guidelines for Merger Remedies – Prospects and Principles", Ecole des Mines, p. 7.
[252] M. Motta, M. Polo, H. Vasconcelos, "Merger Remedies in the European Union: an Overview" (17 February 2002), paper presented at the Symposium on "Guidelines for Merger Remedies – Prospects and Principles", Ecole des Mines, p. 7.
[253] M. Motta, M. Polo, H. Vasconcelos, "Merger Remedies in the European Union: an Overview" (17 February 2002), paper presented at the Symposium on "Guidelines for Merger Remedies – Prospects and Principles", Ecole des Mines, p. 7.
[254] Indeed, the EC must approve the final sale of the assets. However, it is possibly very difficult for EC to veto a buyer who meets the main requirements expressed in the commitment. When the identity of the buyer was known in advance, on the other hand, it would be easier for the EC to evaluate the likelihood of whether it would be an important rival in the industry.

3. The importance of market definition in any merger case

As regards the specific industry of energy, the starting point should be the analysis of the relevant markets, based on the identification made by the EC on merger cases explained above and other similar examples, having in mind the significant character of market definition in any merger case, assisting us to reach a more comprehensive picture of the structure of the industry.[255] The EC has gradually distinguished electricity and natural gas as two separate product markets, after several decisions concerning the energy sector, and at a subsequent stage, several more narrow relevant product markets were indicated, within both the electricity and the natural gas subdivisions.[256] Accordingly, it was concluded that, concerning the product aspect, this kind of market is generally linked to the various stages of the production chain of such commodities.[257] Nevertheless, new product markets are continuously noted to grow in parallel with the development of the liberalization process. Concerning the geographic scope of these markets, it must be mentioned that we have not yet reached the goal of a single European energy sector, while markets regional at first place increasingly expanding their geographic limits.[258]

Interestingly, according to our findings, the importance of considering the structure of local markets when deciding on the design of merger remedies must be noted.[259] Particularly, taking the example of divestitures, specific areas with a high density of entities impacted by a possible merger, it will be more efficient for divestiture package to include a larger number of

[255] M. Piergiovanni, "EC Merger Control Regulation and The Energy Sector: An Analysis of the European Commission's Decisional Practice on Remedies" (2003), *4 (3) Journal of Network Industries 227*, p. 265.
[256] M. Piergiovanni, "EC Merger Control Regulation and The Energy Sector: An Analysis of the European Commission's Decisional Practice on Remedies" (2003), *4 (3) Journal of Network Industries 227*, p. 265.
[257] M. Piergiovanni, "EC Merger Control Regulation and The Energy Sector: An Analysis of the European Commission's Decisional Practice on Remedies" (2003), *4 (3) Journal of Network Industries 227,* p. 265.
[258] M. Piergiovanni, "EC Merger Control Regulation and The Energy Sector: An Analysis of the European Commission's Decisional Practice on Remedies" (2003), *4 (3) Journal of Network Industries 227*, p. 265.
[259] V. Lagos, "Effectiveness of Merger Remedies: Evidence from the Retail Gasoline Industry" (2018), *66 (4) Journal of Industrial Economics 942*, p. 977.

divestitures in these local markets, rather than in municipalities where businesses impacted to a lesser extent by the merger, choosing no divestitures for these locations.[260]

4. The enforcement of merger remedies in the electricity and gas industries

As far as the electricity and natural gas sectors are concerned, two important cases are presented below to stress several concerns concerning the effective enforcement of remedies imposed for mergers in the electricity and gas industries.

4.1. Neste-IVO (FI)[261]

In 1998, a proposed concentration between two state-owned firms in Finland was sent in the form of notification to EC. More particularly, IVO was the largest Finnish company in the energy sector, operating in the generation, wholesale, and distribution of electricity. On the other hand, Neste was active in the sectors of oil, energy, and chemical business. Through its subsidiary company, namely, Gasum Oy, constituted the exclusive importer, supplier, and seller of natural gas, which was primary used as a fuel for electricity generation. It is worth mentioning that in 1992, Neste was investigated by the Finnish Competition Authority, under the framework of its dominant position in the Finnish natural gas market.

The merger between the aforementioned companies raised specific competition concerns since a potential monopoly position was possible to have emerged from the newly merged firm in the market of natural gas. Particularly, there is a danger that the merged firm for several reasons, including the vertical links between the sectors and the accumulated position in both markets, could be in a position to effectively adopt market strategies, i.e., control on prices or quantities

[260] V. Lagos, "Effectiveness of Merger Remedies: Evidence from the Retail Gasoline Industry" (2018), *66 (4) Journal of Industrial Economics 942*, p. 977.
[261] Case No IV/M.931, NESTE/IVO.

in electricity and natural gas markets. In addition to this, the detrimental character of several possible strategies was identified. Consequently, EC concluded that the new entity could create or strengthen its dominant position in the market for electricity. Thus, the proposed transaction raised serious doubts concerning its compatibility with the common market. Therefore, the EC blocked the proposed transaction and the parties expressed proposals at a later stage.

The principal proposals were to quit Neste's control over Gasum (a subsidiary firm) through divestiture of the level of 50% of the company's shares. The Finnish Government committed to guaranteeing that the merged firm would remain a minority shareowner of Gasum. The EC found the proposals submitted by the parties sufficient to resolve the competition problems raised on the assessment. Finally, the EC declared the compatibility of the merger with the common market and with the functioning of the European Economic Area Agreement.

4.2. Eon-Ruhrgas (DE)[262]

The next case concerns a proposed merger between two firms that were already important players in German energy markets, before their integration. EOn (with RWE) possessed a joint dominant position in the electricity market and Ruhrgas constituted the dominant gas supplier in Germany. Regarding the gas sector, Ruhrgas held control of nearly all gas deliveries to regional and municipal companies, gas imports and storage facilities, and high-pressure transmission pipes inside the country. Thus, potentially a new worldwide player in the power industry might be created, consisting of vertically integrated services from gas imports to supply to the final consumer.

From the aforementioned proposed transaction emerged several competition policy concerns, in connection with both the electricity and the gas sector. The merger was rejected by national

[262] E.ON Ruhrgas (B8-113/03) Bundeskartellamt Decision of 13 January 2006, available http://www.bundeskartellamt.de/wDeutsch/download/pdf/Kartell/Kartell06/B8-113-03.pdf?navid=41, accessed 8 October 2009, upheld by the Bundesgerichtshof, KVR 67/07 Decision of 10 February 2009, WuW/EDE-R 2679.

competition authorities since a negative evaluation was given on competition implications from the merger and potential claims from a public interest perspective. As it was indicated from relevant evaluation reports, appropriate remedies needed to avoid this vertical merger posing a multitude of constraints to competition. As a result, several proposals were submitted by the parties.

Nevertheless, the proposed remedies were considered very limited in scope, inapplicable, and not very capable of preventing the basic problem of avoiding any enhancement of the dominance in gas and electricity markets. When parties received this prohibitive decision appealed it to the German Minister for Economy and Technology. Although the previous negative assessment of the proposed merger by the other authorities, afterward, the Ministry allowed the Eon to purchase the dominant gas company, Ruhrgas, for 10.4 billion euros. This happened since according to a special procedure in the German anti-trust law, the government is allowed to authorize anticompetitive behavior. Thus, this specific merger was given a political clearance, with the only condition that the merging entities would work toward achieving security of supply.

At the same time, several economists expressed criticisms about this decision, since they argued that an anticompetitive result has emerged, with the design of creating national champions, going against the general objectives of liberalization of the energy market. Taking into account that the negative initial evaluation from the national competition authorities was founded on competition and consumer welfare concerns, the decision taken by the Ministry, permitting the merger, did not assess any of these issues, i.e., consumers' interests, before expressing their final decision.

Concerning the competition rules enforcement in the electricity and gas industries, several solutions reply to specific problems arising.[263] These problems include among others the liberalization process itself and the demanding level of proof for the exercise of market power ex-post. Possible solutions, albeit being more questionable in so far as it leads to adopting a less rigid standard of proof, providing the EC with more discretionary power,[264] include estimations on a future basis of the competition as a benchmark for measuring the anticompetitive effects of mergers and invoking the concept of excessive pricing to punish gas and electricity companies which exploit their dominant position to the detriment of consumers.[265] Remarkably, the debate is open in connection with the implementation of the aforementioned suggestions.[266]

5. Merger enforcement policy can promote environmentally sustainable business practices?

A new critical question is whether is there an adequate legal basis for using EU competition law to promote environmentally sustainable purposes. In that direction, environmental factors start becoming an important factor in the process of remedies acceptability.

Nowadays, environmental factors are gradually becoming a more frequent decisive factor for businesses to adopt an M&A strategic movement. The driving forces for this novel strategy can be identified as the need of the undertakings irrespective of the sector to avoid a poor green profile, which poses several threats in terms of potential or capacity for investment, reputation,

[263] F. Leveque, "Antitrust enforcement in the electricity and gas industries – problems and solutions for the EU" (May 2006), Discussion Paper 2005-6/1, Florence School of Regulation, European University Institute, available at https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.623.8655&rep=rep1&type=pdf.
[264] F. Leveque, "Antitrust enforcement in the electricity and gas industries – problems and solutions for the EU" (May 2006), Discussion Paper 2005-6/1, Florence School of Regulation, European University Institute, available at https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.623.8655&rep=rep1&type=pdf.
[265] F. Leveque, "Antitrust enforcement in the electricity and gas industries – problems and solutions for the EU" (May 2006), Discussion Paper 2005-6/1, Florence School of Regulation, European University Institute, available at https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.623.8655&rep=rep1&type=pdf.
[266] F. Leveque, "Antitrust enforcement in the electricity and gas industries – problems and solutions for the EU" (May 2006), Discussion Paper 2005-6/1, Florence School of Regulation, European University Institute, available at https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.623.8655&rep=rep1&type=pdf.

and resilience of a complete business portfolio, restricting the latitude for financial returns.[267] The growing expectations of governments and society present considerable opportunities for differentiation and growth into new markets and technologies.

Bearing in mind the aforementioned important societal and market trends, emerging merger control policies have started to realize the increasing necessity to take into consideration these new forces by policymakers and regulatory bodies. Undoubtedly, more steps needed to be taken to have a complete picture of the new market realities. Undertakings currently considering M&A deals must thoughtfully prepare their tactical answers on these emerging issues.

At the EU level, Article 21(4) of the EU Merger Regulation permits the EU Member States to take appropriate measures to protect legitimate non-competition interests, namely public security, media plurality, and prudential supervision. Additionally, several national competition authorities across the EU allow the public interest to be considered in exceptional conditions. Nevertheless, EU competition law does not necessitate a public interest factor to be taken into account when assessing possible violations of the antitrust rules. We come thus to the question of whether the EU Treaties can offer an adequate legal basis to invoke competition law in the course of promoting environmentally sustainable business practices.

Along these lines, Simon Holmes has recently expressed the view that such a legal basis exists, founded on Articles 3(1)(3) and (5) TEU and Articles 7, 9, and 11 TFEU.[268] In particular, Article 11 TFEU requires that "[e]nvironmental protection requirements" be "integrated into the definition and implementation of the Union's policies and activities, in particular to promote

[267] See accordingly the analysis published recently by N. Kar, G. V. Gerven, V. Havard-Williams, C. Colin-Dubuisson, B. Spring, E. Cochrane, "Competition and sustainability: Fostering green deals via merger control policy" (May 2020), Linklaters, available at https://www.linklaters.com/en/insights/blogs/linkingcompetition/2020/esg/competition-and-sustainability/fostering-green-deals-via-merger-control-policy.

[268] S. Holmes, "Climate change, sustainability, and competition law" (2020), *8 (2) Journal of Antitrust Enforcement 354*, p. 360-361.

sustainable development", excluding any restrictions concerning the policy domain. Therefore, according to Holmes, the EC and Courts must consider environmental protection in the process of application of all the regulatory regimes on competition law (see Protocol (No 27) on the internal market and competition).[269] However, this should be balanced with the fundamental need of non-distorting competition, as it is also mentioned in other Treaty provisions, for example, Article 119 TFEU).[270]

It is interesting to explore the respective decisions issued by the EC based on the above analysis. More specifically, there are early indicators that environmental considerations started getting an important role in the merger control assessment and the acceptability of remedies. Confirming the above, in *DEMB/Mondelez/Charger OPCO*,[271] environmental factors affected the EC's relevant product markets analysis (i.e., organic, fair trade, and other certified coffees vs. conventional coffee). In another case, namely *Aleris/Novelis*,[272] environmental considerations again constituted a significant part of the EC's market definition, framing the substantive assessment and having implications at the remedies package. Finally, possibly most noticeable is the decision taken by the EC to begin an in-depth investigation into Aurubis and Metallo's deal,[273] since the concerns expressed by the EC included inter alia potential decrease in incentives for recyclers to collect and sort copper scrap.

[269] S. Holmes, "Climate change, sustainability, and competition law" (2020), *8 (2) Journal of Antitrust Enforcement 354*, p. 359.
[270] Article 119 TFEU: "*1. For the purposes set out in Article 3 of the Treaty on European Union, the activities of the Member States and the Union shall include, as provided in the Treaties, the adoption of an economic policy which is based on the close coordination of Member States' economic policies, on the internal market and on the definition of common objectives, and conducted in accordance with the principle of an open market economy with free competition. 2. Concurrently with the foregoing, and as provided in the Treaties and in accordance with the procedures set out therein, these activities shall include a single currency, the euro, and the definition and conduct of a single monetary policy and exchange-rate policy the primary objective of both of which shall be to maintain price stability and, without prejudice to this objective, to support the general economic policies in the Union, in accordance with the principle of an open market economy with free competition*. […]".
[271] Case M.7292, Demb/Mondelez/Charger Opco.
[272] M.9076, Novelis/Aleris.
[273] M.9409, Aurubis/Metallo Group Holding.

United withthis new movement, several antitrust regimes worldwide enables relevant competition authorities to consider public interest concerns, beyond the narrow lines of ‘pure’ considerations of economic efficiency. For instance, in South Africa, the Competition Act necessitates the Competition Commission to take into account the effect that an alleged concentration may have on domains including among others employment and black economic empowerment.

Under this perception, it can be suggested that a more general efficiency-oriented approach can be adopted when assessing the impacts of a merger, not strictly economically driven, but taking into account wider sustainability perspectives and forming accordingly the essential remedies to achieve this end.

Chapter 4

Conclusions

The purpose of the present thesis was to assess the efficiency of the remedies imposed by the EC with a special reference to the merger decisions concerning the energy sector, taking into consideration the provisions and the objectives of the Merger Regulation, while analyzing the types of commitments and their characteristics, in the context of the principles of the Notice on Remedies and the Merger Regulation.

Under the above analysis, the regulatory regime of the Merger Regulation was presented, to understand the powers that the EC possesses to evaluate a merger with a Community dimension. In this direction, it was highlighted that the general objectives of the Merger Regulation being a part of any competition law system, are the maintenance of effective competition and a competitive market structure.

Despite the undeniable fact that M&A affects a significant proportion of economic activity worldwide, restrictive systematic evidence exists concerning the impact of this business decision on productivity and market power.[274] In particular, the existing literature has often focused on studies of specific firms or industries, making it difficult to deduce average effects across broad sets of industries. At the same time, another demanding task is to estimate distinct effects on productivity and profits, with endogeneity problems challenging the consistency of several several evaluations.[275]

Although the aforementioned difficulties were present during the research process, this dissertation estimating the effects of merger remedies in the EU finds significant evidence for concluding that several problems in the design and implementation of remedies are present concerning the decisions taken by the EC. After carrying out an overall evaluation of the effectiveness of the remedies in maintaining effective competition in the internal market, the thesis also identified several areas in connection with the enforcement of the merger remedies which require further improvements.

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[274] B. A. Blonigen, J. R. Pierce, "Evidence for the Effects of Mergers on Market Power and Efficiency" (2016), Finance and Economics Discussion Series 2016-082, Washington: Board of Governors of the Federal Reserve System, available at https://doi.org/10.17016/FEDS.2016.082, p. 24.

[275] B. A. Blonigen, J. R. Pierce, "Evidence for the Effects of Mergers on Market Power and Efficiency" (2016), Finance and Economics Discussion Series 2016-082, Washington: Board of Governors of the Federal Reserve System, available at https://doi.org/10.17016/FEDS.2016.082, p. 24.

Further to the above, the principles of the Notice on Remedies concerning the types and characteristics that merging entities are expected to feature to be acceptable to the EC were also analyzed in the first section of this thesis. In this respect, it can be easily concluded that in abstract the EC considers structural remedies preferable in comparison with behavioral ones, principally due to the easy implementation, monitoring, and enforcement of this kind of remedies. Nevertheless, despite the identified complications as far as the designing, monitoring, and enforcing behavioral remedies in comparison with the second main category of merger remedies, CAs choice to prioritize the latter may be problematic, in so far as theoretically speaking behavioral remedies may produce efficiencies as well.[276] Hence, CAs shall thoroughly engage in a balance between these two kinds of remedies and not adopting an ipso facto and ab initio position on the matter, avoiding an inherent preference for structural remedies, as there is always the risk of underperforming compared to behavioral remedies.[277]

As a conclusive remark, it can be said that currently experiencing major movements towards more sustainable goals in every aspect of markets life, competition law and merger regulation accordingly cannot remain detached/unconcerned of this modern reality. Indeed, the general goals of competition law and policy cannot remain static through time.

Thus, we have started realizing the rise of the Brandeisian antitrust wave, which considers the role of antitrust law in a more expanded way.[278] In this context, a broader perspective is given to the meaning of this domain of law and policy, including inter alia considerations of rising inequality, economic concentration, and environmental concerns.[279] Further evidence to the above new ground for purposes exploration, the EC has started a public consultation to explore explore the role of competition law, including the merger remedies regime, in achieving the goals of Green Deal.[280]

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[276] A. Ezrachi, "Under (and Over) Prescribing of Behavioural Remedies", Working Paper (L) 13/05, The University of Oxford Centre for Competition Law and Policy, available at https://www.law.ox.ac.uk/sites/files/oxlaw/cclp_1_13-05.pdf, p. 4.

[277] A. Ezrachi, "Under (and Over) Prescribing of Behavioural Remedies", Working Paper (L) 13/05, The University of Oxford Centre for Competition Law and Policy, available at https://www.law.ox.ac.uk/sites/files/oxlaw/cclp_1_13-05.pdf, p. 4.

[278] K. Stylianou, M. Iacovides, "The Goals of EU Competition Law - A Comprehensive Empirical Investigation" (2020), available at https://ssrn.com/abstract=3735795, p. 4.

[279] K. Stylianou, M. Iacovides, "The Goals of EU Competition Law - A Comprehensive Empirical Investigation" (2020), available at https://ssrn.com/abstract=3735795, p. 4; See also J. B. Baker, S. C. Salop, "Antitrust, Competition Policy, and Inequality" (2015), *104 Georgetown Law Journal Online 1*; S-L Hsu, "Antitrust and Inequality: The Problem of Super-Firms" (2018), *63 The Antitrust Bulletin 104*.

[280] For more details on this initiative see European Commission, "Competition Policy supporting the Green Deal: Call for contributions" (October 2020), available at https://ec.europa.eu/competition/information/green_deal/call_for_contributions_en.pdf.

In light of the above, it became obvious that competition law and policy have a significant role to play in realizing the movement towards sustainability in every aspect of business life. Merger remedies will probably be affected shortly through the aforementioned developments, as it was indicated through the analysis above in regards to several new cases and the relevant environmental concerns affected merger decisions therein. What is crucial for national competition authorities and the EC, is to maintain an increased level of regulatory scrutiny on the merger and post-merger analysis, to be able to reply with complete, well-prepared, and efficient answers to the changes ahead, being ready at the same time to provide the policymakers with instructive suggestions on the best possible way merger remedies could achieve the multifaceted emerging goals of competition law and policy. In addition to this, NCAs and Courts may exercise their judgment in the direction of assessing possible not-quantifiable economic benefits of a merger,[281] as it was expressed by senior EC officials, *"sustainability goals can be taken into account if they are valued by the consumer that is being harmed by that arrangement. Balancing done in that context is certainly not restricted to a mathematical exercise of clearly identified quantified price and profits."*.[282]

As a conclusive remark, the EC must provide a legitimate basis for merger decisions in the energy industry, combining the above considerations with the conditions and obligations concerning the energy sector, as it is safeguarded through the respective regulatory framework, under the overall aim of creating of an integrated European energy market,[283] guaranteeing the competitive structure of the common market.

All in all, research studies of this kind can influence the future action of the EC in the field of merger remedies. Through a demonstration of the EC's commitment to ingevaluating critically and transparently its past policy and practice to draw fruitful lessons from this process, it is expected that the EC will gradually enhance its regulatory capability in accepting remedies that clearly and unambiguously eliminate the identified threats to competition. Along these lines,

[281] Drawing similar conclusions with the suggestions provided for the assessment under Article 101 (3) of TFEU in relation to sustainability benefits of arrangements between competitors, see for instance, "Sustainability cooperations between competitors & Art. 101 TFEU" (2020), Unilever submission to DG Competition, available at https://www.covcompetition.com/wp-content/uploads/sites/21/2020/05/UNILEVER-SUBMISSION_SUSTAINABILITY-COMPETITION-LAW.pdf.

[282] M. Jaspers, "Sustainability and Competition Policy: Bridging two Worlds to Enable a Fairer Economy" (24 October 2019), Conference, available at https://www.youtube.com/watch?v=7mpWAOhkQbY.

[283] In that direction, it must be remembered that two important legislative instruments aimed at fostering the process of liberalization of the energy sector are: Directive 03/54/EC of the European Parliament and of the Council of 26 June 2003 concerning Common Rules for the Internal Market in Electricity and Repealing Directive 96/92/EC, 2003 O.J. (L 176) 37; and Regulation 1228/03/EC on conditions for Access to the Network for Cross-Border Exchanges in Electricity; 2003 O.J. (L 176)1.

the interested parties, i.e., merging entities, but also their customers, will avoid bearing potential risks which are associate with inadequate remedies.

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