ΟΙΚΟΝΟΜΙΚΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΘΗΝΩΝ

ΤΜΗΜΑ ΟΙΚΟΝΟΜΙΚΗΣ ΕΠΙΣΤΗΜΗΣ

EFFICIENCIES IN MERGER ASSESMENT

ΕΛΕΝΗ ΚΩΣΤΟΥΛΑ

**Διατριβή υποβληθείσα προς μερική εκπλήρωση
των απαραιτήτων προϋποθέσεων
για την απόκτηση του
Μεταπτυχιακού Διπλώματος Ειδίκευσης**

Αθήνα
[Οκτώβριος, 2011]

Εγκρίνουμε τη διατριβή της Ελένης Κωστούλα

Υπεύθυνος καθηγητής:

ΙΩΑΝΝΗΣ ΚΟΚΚΟΡΗΣ

Πανεπιστήμιο Reading

Εξεταστές καθηγητές:

ΙΩΑΝΝΗΣ ΚΑΤΣΟΥΛΑΚΟΣ

Οικονομικό Πανεπιστήμιο Αθηνών

ΝΙΚΟΛΑΟΣ ΒΕΤΤΑΣ

Οικονομικό Πανεπιστήμιο Αθηνών

31 Οκτωβρίου 2011

Table of contents

Summary

One of the most common reasons for a firm to merge is that a merger is believed to generate economic efficiency. This argument has different aspects as mergers may yield efficiency gains in various ways.

Economists often distinguish four different types of efficiencies: Allocative efficiency, productive efficiency, dynamic and transactional efficiencies. All types are relevant in the analysis of the impact of a concentration on effective competition.

The approach to efficiencies under EC Merger Regulation has always been controversial. Although Article 2(1) of the Old Merger Regulation[1] states that technical as well as economic progress has to be taken into account in the merger assessment provided that it is to the consumers' advantage and does not form an obstacle to competition, efficiencies were given little weight in merger assessments prior to the reform of EC merger control.

Nevertheless, there is evidence that the Commission actually evaluated efficiencies in some cases but the final outcomes of these evaluations were contradictory creating confusion in this area of law. In most of these cases the Commission recognized efficiencies as a pro-competitive effect generated by the merger but there are cases where efficiencies were seen as a penalizing factor. The later approach must be seen as the result of confusion regarding the interpretation of Article 2 of the Old Merger Regulation and ambiguous statements from the Commission.

The proposal of the New Merger Regulation is the result of a long period of review and in January 2004 the New Merger Regulation[2] came into force introducing the SIEC-test as a substantive criterion. The new substantive criterion has a more economic based approach compared to the dominance test used in the Old Merger Regulation and focuses more on the effects of effective competition instead of the structure of the market. The criticism, the debate and the change of the substantive criterion in the Merger Regulation finally made it possible to explicitly introduce efficiencies to EC merger control. Today efficiencies are mentioned in both Recital 29 of the New Merger Regulation and in the Horizontal Merger Guidelines.

In order to assess whether or not a concentration significantly impedes effective competition the Commission performs an overall competitive appraisal of the merger taking into account any substantiated efficiency claims. The Commission may find, as a consequence of the efficiencies that the merger brings about, that the concentration is compatible with the common market.

[1] Council Regulation (EEC) No 4064/89 of 21 December 1989 on the control of concentrations between undertakings (OJ L 395, 30.12.1989, p.1 as corrected by OJ L 257, 21.9.1990, p. 13), Old Merger Regulation

[2] 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), New Merger Regulation

A plausible approach to efficiencies in the merger review is a two-step test within the overall assessment of the operation. The first step is to evaluate the anti-competitive effects created by the merger and the second step is to evaluate generated efficiencies that counteract the anti-competitive effects. All factors are to be considered before the Commission decides whether or not the transaction significantly impedes competition. In order for the Commission to be able to clear a merger the final outcome of the merger must not make the consumers worse of than before the merger.

For the Commission to take account of efficiencies in its merger assessment and to be able to reach the conclusion that, as a consequence of the efficiencies the merger shall not be prohibited, the efficiencies have to fulfill three cumulative requirements. They have to benefit consumers, be merger specific and be verifiable. Moreover, since there exist an asymmetry between the competition authorities and the merging firms with regards to the information on the merger and the expected efficiencies it is up to the merging firms to provide the relative information demonstrating that the efficiency gains are fulfilling these requirements.

The long debate about the change of the substantive criterion together with the explicit introduction of efficiencies into the recitals of the New Merger Regulation and into the Horizontal Merger Guidelines indicate that efficiencies have been given a stronger position, compared to prior to the reform, in the assessment on a merger's compatibility with the common market. However, the current Commission's practice does not prove that efficiencies claimed by merging parties will lead to clearance of the merger accused of causing anti-competitive effects on the European common market. In the opinion of the author, the Commission is provided with the legal basis to raise the importance of efficiencies in mergers' assessment and it is very likely that future rulings will illustrate an increase of their significance.

1. Mergers

1.1. Mergers; Horizontal and non-horizontal

A merger involves two separate undertakings merging entirely into a new entity. The term "merger" as used by company and competition law refers to a broad range of corporate transactions. It is helpful to distinguish between horizontal, vertical and conglomerate mergers, since they affect the market in different ways.

Horizontal mergers are mergers occurring between firms producing similar goods or offering similar services and operate at the same level of the market. These mergers are considered to be most dangerous to competition as they remove direct competitive constraints in the market[3]. Such examples are the merger between Procter & Gamble and Schickedanz[4], where Procter and Gambler manufactured sanitary towels and Schickedanz produced tampons and Philips/Marconi Medical Systems[5], concerning various types of medical diagnostic imaging equipment for hospitals.

Horizontal mergers may significantly impede effective competition in two ways;
By diminishing the degree of competition after having eliminated important competitive constraints on one or more firms (non-coordinated or unilateral effects) or by creating and reinforcing a situation where competition is reduced by co-ordination (co-ordinated effects). Though a horizontal merger may result in the removal of direct competitive constrains, resulting in increased prices, a horizontal merger may also create efficiencies counterbalancing these effects so that the price may fall below pre- merger again[6].

Non- horizontal mergers include vertical and conglomerate mergers:

Vertical mergers are mergers between firms that operate at different but complementary levels in the chain of production and/or distribution e.g. a manufacturer merging with its input supplier. An example of a vertical merger is the merger between Tetra Laval and Sidel[7]. These mergers are often efficiency enhancing but may still arise competition concerns. These concerns have to do with whether or not the merger is expected to foreclose market access anti-competitively (e.g. by raising rivals' costs) and/or increase the ability and incentive of the parties to collude in a market.

Conglomerate mergers are mergers between firms, which have no connection with each other in any product market[8]. Such mergers rarely lead to harm on competition as a result solely of their conglomerate effects. Potentially adverse

[3] Bishop, S, Lofaro, A, Rosati, F, Young, J; RBB Economics report, "The Efficiency- Enhancing Effects of Non- Horizontal Mergers", (2005)
[4] Procter & Gambler/ Schickedanz (Case IV/M .430), 21 June 1994
[5] Case No. COMP. /M2537, Philips/Marconi Medical Systems, (2001)
[6] RBB Economics op. cit. p.i
[7] Tetra Laval/Sidel (Case COMP//M 2416), 30 October 2001
[8] P.Craig, G De Búrca, EU Law Text Cases and materials, (Oxford University Press, 3rd Ed, 2003) p. 1034

effects can be identified related to so-called 'portfolio power'. A firm may be said to have 'portfolio power' when the market power deriving from a portfolio of brands exceeds the sum of its parts. This may enable the firm to exercise market power in individual markets more effectively, resulting in harming the competition. Several of the Commission's published merger decisions have included this concept (e.g. Coca Cola/Amalgamated Beverages[9], Coca Cola/Carlsberg[10] and Guinness/Grand Metropolitan[11])

Non-horizontal mergers do not remove direct competitive constrains as the former. These kinds of mergers generally give incentives to the merged firms to lower their prices since there is a complementary relationship among their product so a decrease in the price of a product may result in increasing the sales of another product. Large conglomerates may seek to require or encourage customers to purchase a range of their products, whether through tying or bundling of products or through significant discounts targeted at non-portfolio rivals' customers.

1.2. <u>Why firms are led to mergers</u>

The challenges of a more integrated common market result in reorganizations of corporations, especially in the form of concentrations. The European Commission ("Commission") welcomes such corporate reorganizations, as long as the concentrations are in line with the requirement of a dynamic competition and capable of maintaining or increasing the competitiveness in the European market[12].

There are many reasons that lead firms to merge, most of which are beneficial or at least not harmful. Mergers may be beneficial in many ways. One of the most common reasons for firms to merge is that the new entity may create economic efficiency. This has different aspects as mergers may yield efficiency gains in various ways.

This is the typology of efficiencies that might be created from mergers:

Economies of scope refer to the cost savings that might be realized as a result of increasing the number of different goods produced. Merging firms might differ in their marginal cost of production. After the merger, cost savings may be realized through shifting production from the plant with higher marginal cost to the plant with lower marginal cost. For example, Procter & Gamble that produces hundreds of products from razors to toothpaste. This company can afford hiring expensive graphic designers and marketing experts who will use their skills across the product lines and since the costs are spread out, this lowers the average total cost of production for each product.

---

[9] Case IV/M794 4 C.M.L.R.368 ;(1997) O.J. L.218/15 (1997)
[10] Case IV/M833 5 C.M.L.R. 564 (1997)
[11] Case IV/M938 O.J. L.218/15 (1998)
[12] Merger Regulation No 139/2004, Recital (4)

Economies of scale refer to the cost advantages that a business obtains due to expansion. There are factors that cause a producer's average cost per unit to fall as the scale of output is increased. This is a commonly used argument for a merger. However it is important to understand the source of the economies of scale and assess whether or not they cannot be realized in another way than through the merger. Economies of scale may be divided into short-run economies of scale and long-run economies of scale.

Technological progress comes as a result of increased incentives for research and development. Technological progress can be said to be generated by process innovations, which reduce the cost of producing a product and product innovations, which increase the value of a product[13].

Purchasing economies; for instance, small firms often need to purchase their input at a higher price than the marginal cost. A merger between two small firms may increase their bargaining power and more pressure can be put on their input suppliers enabling the merging firms to purchase their input at lower prices and thus reduce their costs.

Slack; the threat of hostile takeovers may function as a disciplinary device to the management of a firm. Many firms suffer from different incentives between owners and managers. This, among other things, may result in internal inefficiencies. Internal inefficiencies may lower the firm's stock price, inducing other firms to buy the firm, which might not be desirable for those owing the firm.

Apart from efficiency gains there are also other explanations for some mergers. Firms within one nation state or within a political grouping such as the European Union wish to become "national or European champions". Mergers also present firms that wish to do so with an opportunity of exiting an industry. There are barriers not only when entering a market but also when exiting it. It is quite common, for firms to acquire small undertakings that possess useful know-how or intellectual property rights, and, from the perspective of the entrepreneur the freedom to sell it may be important for the risk taken. Of course when firms merge, though it is never clearly stated, they may also wish to eliminate competition between them and increase their market power.

However, it seems that some mergers cannot be explained by the rational economic terms outlined above. There are mergers driven by fear, personal vanity or even greedy managers.

1.3. The concept of concentration

According to the Council Regulation (EC) No 139/2004 on the control of concentrations between undertakings the concept of a concentration covers operations bringing about a change of control on a lasting basis resulting from:

[13] European Commission Directorate-General for Economic and Financial Affairs, op.cit. p. 45.

a) The merger of two or more previously independent undertakings or parts of undertakings, or

b) The acquisition, by one or more persons already controlling at least one undertaking, or by one or more undertakings, whether by purchase of securities or assets, by contract or by any other means, of direct or indirect control of the whole or parts of one or more other undertakings[14].

In other words; a concentration is formed either by a merger between two previously independent firms or by the acquisition of control of the whole or shares of another firm. In order to determine the existence of a concentration the Commission uses a qualitative criteria rather than a quantitative criterion[15]. The Commission also introduced criteria for treatment of multiple transactions as a single concentration.

A merger may occur, for example, when two previously independent firms merge into a new firm and cease to exist as separate legal identities or when an independent firm absorbs another independent firm, the former retaining its' legal identity and the later ceasing to exist as a legal identity.

Also the creation of a joint venture performing on a lasting basis all the functions of an autonomous economic entity shall be considered to be a concentration within the meaning of the Merger Regulation[16].

1.4. Community dimension

A concentration with Community dimension should be deemed to exist where the aggregate turnover of the undertakings concerned exceeds certain given thresholds. The thresholds are given in Article 1(2) of the Merger Regulation which states that a concentration has Community dimension where:

(a) Worldwide turnover test: The combined worldwide turnover of all the undertakings concerned must be more than €5,000 million;

(b) Community-wide turnover test: Each of at least two of the undertakings concerned must have EU-wide turnover of more than €250 million; and

(c) Two-thirds rule: A concentration does not have a "Community dimension" if each of the undertakings concerned achieved more than two-thirds of its EU-wide turnover in one and the same Member State.

As long as firms effecting the concentration have substantial operations there, it is irrespective of whether or not the undertakings have their Head Quarters or

[14] Council Regulation (EC) No 139/2004, Art 3 (1).

[15] Commission Notice on the concept of concentration, para. 4. (O.J 1998, C66/02) (http://europa.eu.int/comm/competition/mergers/legislation/co406489_en.pdf)

[16] Council Regulation (EC) No 139/2004, Article 3(4)

their principal fields of activity in the Community. However, in light of the debate about the relationship between concentration levels and competitive effects, it is inappropriate to create a per se rule. A presumption of anticompetitive effects from high concentration levels should be subject to rebuttal by proof of pro-competitive efficiencies. Demonstration of such efficiencies should shift the burden back to the plaintiff. The economic literature categorizes efficiencies resulting from a merger in many different ways[17]. Efficiencies can be based on the concept of the production function, and the efficiencies are gained by rationalization of production, economies of scale and scope, technological progress, as well as increased buying power[18].

[17] Lars-Hendrik Röller, Johan Stennek and Frank Verboven, Efficiency gains from mergers, in: The Efficiency Defence and the European System of Merger Control, a study prepared for the Directorate-General for Economics and Financial Affairs, No.5 (2001).
[18] C. Luescher, "Efficiency Considerations in European Merger Control--Just Another Battle Ground for the European Commission, Economists and Competition Lawyers" (2004) 25 ECLR 72.

2. Efficiencies

2.1 Introduction

Economists distinguish four different types of efficiencies: Allocative efficiency, productive efficiency, dynamic efficiency and transactional efficiencies. All four types are of great importance during a merger assessment.

Allocative efficiency is said to be achieved when market processes lead society's resources to be allocated to their highest valued use among all competing uses. In the context of market exchanges between consumers and producers, the allocative efficiency principle can be restated somewhat more specifically to say that the value of a product in the hands of consumers is equalized "at the margin" to the value of the resources that were used to produce that product. This intuitive "equality at the margin" condition ensures that an economy maximizes the aggregate value of all of its resources by placing them in their highest valued uses. Starting from an efficient market allocation, if a firm were to produce one additional unit of the product, the resource cost to society would exceed what consumers would be willing to pay for that last unit. Total social welfare thus would fall as a result. By the same token, if the firm cut production by one unit, the loss that consumers would suffer would exceed the value of the saved resources in whatever alternative use they were deployed. Again, total welfare would fall as a result.

Antitrust policy looks to the process of market competition as its principal means for promoting an efficient allocation of society's scarce resources. Economic theory formalizes this principle in the First Theorem of Welfare Economics, which identifies a set of very general conditions under which a competitive market process will guarantee the efficient allocation of resources. One way that mergers can promote allocative efficiency arises in the context of a vertical merger to address the elimination of the “double marginalization” problem. Double marginalization is defined as the “exercise of market power at successive vertical layers in a supply chain” and it drives to the paradoxical outcome of higher buyer prices with lower seller profits. According to a 2005 Caltech paper (Vertical Integration of Successive Monopolists: A Classroom Experiment) the sequence of mark-ups “leads to a higher retail price and lower combined profit for the supply chain than would arise if the firms were vertically integrated.” Furthermore, allocative efficiency is achieved under perfect competition making it impossible for a producer to affect market price through lowering the level of output[19].

Productive efficiency (or supply-side efficiencies) is achieved when goods and/or services are produced to lowest possible cost and output is maximized by using the most effective combination of inputs[20]. It is improved by mergers through the creation of economies of scale (the average cost is reduced as the

[19] Gerard, D; “Merger Control Policy: How to Give Meaningful Consideration to Efficiency Claims?” CML. Rev 2003; 40,6; ABI/INFORM Global p. 1368

[20] De la Mano, M; Enterprise Directorate-General European Commission, ”For Costumer’s Sake: The Competitive Effects of Efficiencies in European Merger Control” (2002) Enterprise Paper No 11. p. 8

output increases) or economies of scope (cost savings from the production of differentiated products). These kinds of efficiencies are the ones that are focused upon in efficiency evaluations as they often can be quantifiably measured and objectively ascertained[21]. Productive efficiencies account for around 70 % of the strategic rational of mergers[22].

Dynamic efficiency (or demand-side efficiencies) is connected with whether there is enough incentive and ability to research, innovate and increase productivity over time. It is achieved when producers constantly develop expertise or learning-by-doing and produce new products which consequently may result in cheaper, better or new goods that will satisfy consumers' needs. Hence dynamic efficiency provides great potential of enhancement of social wealth as they result in introduction of new improved products.

Transactional efficiencies may be attained by purchasing an upstream monopoly supplier, which, prior to the merger, had an incentive to engage in opportunistic behavior or by combining research and development activities, which, if carried out under a joint arrangement, would have been difficult to coordinate.

Effective competition may be said to prevail when producer are continuously forced to satisfy the consumers' wishes for lowest price (allocative efficiency) while using the fewest resources (productive efficiency), and thereby encourages innovation and progressiveness (dynamic efficiency)[23].

However, these four types of efficiencies might not necessarily be consistent with each other. A concentration might cause a reduction in allocative efficiency at the same time as productive efficiency increases as a result of economy of scale or scope. In addition to the above specific components, there are other categories of efficiencies that may be found in literatures that deeply discusses the economics behind efficiency[24]. Therefore, the competition authorities must balance all the above when determining whether or not the merger will result in any net efficiency.

2.2. Welfare Effects of Mergers and the Role of Efficiencies

In order to assess the overall effects of mergers it is necessary to first make

[21] Piaskoski, M, Finkelstein, N;" Do Merger Efficiencies Receive" Superior" Treatment in Canada? Some Legal, Policy and Practical Observations Arising from the Canadian Superior Propane Case" World Competition, 2004, 27 (2), p. 271

[22] Habeck, M, KroÈger, F and TraÈm, M; After the Merger, Seven Strategies for Successful Post-Merger Integration (Pearson education Limited, London, 2000) p. 7

[23] Luescher, C "Efficiency Considerations in European Merger control- Just another Battleground for the European Commission, Economists and Competition Lawyers" E.C.L.R 2004 25(2) p.73

[24] ICN Merger Working Group: Analytical Framework Subgroup, "Project on Merger Guidelines" [2004], Chapter IV identifies fixed cost savings, promotional efficiencies, pecuniary (or) re-distributive efficiencies, marginal cost savings, demand side network effects and capital cost savings as the other kinds of efficiencies recognized by regulators in different jurisdictions. 12 Ann-Britt Everett and Thomas W. Ross, "The Treatment of Efficiencies in Merger Review: An International Comparison" [2002], Canadian Competition bureau, at p.15 (available at http://www.competitionbureau.gc.ca/epic/site/cb-bc.nsf/en/01263e.html accessed on 12/01/2009)

explicit the policy goals of merger regulation. In the policy debate several objectives are frequently mentioned.

•Consumer surplus. A first objective upon which merger analysis may be based is the protection of consumer interests. If this is the case, the central focus of merger analysis is on the competitive, or price effects, of mergers. In the European Commission's merger assessment this has been the main goal.

•Total surplus. Another objective may be to further both consumer and producer interests. Total surplus may operationally be defined as the sum of consumer and producer surplus.

•Other objectives. These include the promotion of European integration, employment, regional balance, viability of small firms, and competitiveness of national firms on international markets. The concern with the preservation of employment has often been a political concern in proposed mergers. In principle, employment considerations should be taken into account in a full cost-benefit analysis of mergers. In practice, a merger policy designed to preserve old production structure is presumably not the best way to deal with the employment objective in the long run.

In the analysis below we focus on the first two policy goals, which analyse the price effects of mergers. Of particular interest is the role played by efficiencies. Is the relationship between efficiency gains and consumer interests necessarily a trade-off?

Or are there circumstances in which efficiency gains also benefit consumers? To answer these questions, the typology of efficiency gains provided above will prove to be very useful. Depending on the specific type of efficiency, a merger may sometimes lower prices, to the benefit of consumers. To assess the price effects of a merger, it is therefore crucial to identify the specific types of efficiencies that are involved, and, less obviously, to quantify the magnitude of these efficiencies.

2.2.1. Price effects of horizontal mergers

In practice horizontal mergers may also generate product (quality) improvements. In this case, consumers may benefit from a merger even without price decreases, provided that quality increases sufficiently. The discussion in this section may thus be rephrased in terms of "quality-adjusted" price effects of horizontal mergers (e.g. Rosen, 1974)[25]. The spirit of the various results will therefore also apply to mergers with product (quality) improvements.

Since horizontal mergers reduce the number of competing firms in the industry, the common view is that mergers tend to lead to increased price (or to other anticompetitive conducts by the merged entity and/or competitors). However, to

[25] Rosen, Sherwin, Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition, Journal of Political Economy, 82, 1974, 34-55

obtain a thorough understanding into the price effects of mergers, it is necessary to examine this common view under various modes of competition and alternative types of efficiency.

First, consider a simple industry in which all firms have identical and constant unit costs. Consider a merger with no efficiencies gains. In this case, most theories of oligopoly imply that the price will increase. The only exceptions are if firms have a "perfect" cartel before the merger, if one firm is failing, or if the merger triggers immediate entry. In these cases, the price would be unaffected by the merger. What, then, is the role played by internal efficiencies? To which extent can they ensure that price decreases will take place after merger?

2.2.1.1. Non-collusion theories

Farrell and Shapiro (1990)[26] consider a Cournot model, in which firms compete by setting quantities. To simplify, they assume that all firms produce the same homogeneous good. In this set-up they analyze the nature and the magnitude of internal efficiencies that are required for a merger to reduce price and increase output to the benefit of consumers. From their analysis it is possible to draw the following conclusions:

- For price to decrease after a merger, the merged firm must realize a substantially lower marginal cost than did either of its constituent firms before the merger. Farrell and Shapiro (1990) provide a more precise formula for the required reduction in marginal costs.

- If the internal efficiencies only consist of output rationalisation or fixed cost savings, then there will be a price increase after the merger. Rationalisation, but not fixed cost savings, may combined with other cost savings lead to lower prices.

Given the negative result on rationalisation and fixed cost savings, one may wonder which type of efficiencies may be responsible for price reductions. The typology of efficiency gains described above provides an answer. The following types of efficiencies may ensure price reductions after mergers, at least provided that they are "sufficiently large":

(1) Long-run economies of scale, and product-specific economies of scale
(2) Technological progress, either achieved by a transfer of know-how, or by Increased incentives for R&D
(3) Purchasing economies.

All these efficiencies have in common that they may lead to a (long term) reduction in the marginal costs below those of the formerly separate firms. The question is of course how large the reduction in marginal costs is required to be. Interestingly, Farrell and Shapiro show that the required reductions in marginal

[26] Farrell, Joseph; Shapiro, Carl: Horizontal Mergers: An Equilibrium Analysis, American Economic Review; 80(1), March 1990, pages 107-26

cost depend on relatively easy to observe variables, i.e. the firms' pre-merger market shares and the elasticity of demand. Farrell's and Shapiro's analysis, as most static theories of oligopolies, stresses the importance of marginal costs rather than fixed costs in reducing prices. In a dynamic setting, when new entry may occur, it may be possible that also fixed cost savings have an impact on prices.

The analysis of Farrell and Shapiro establishes general results for the Cournot model. Some industries are however better described by the Bertrand model, in which firms compete by setting prices rather than quantities. Does Farrell's and Shapiro's main result generalize to this alternative setting? In particular, can a price reduction after a merger only be achieved through a significant reduction in the marginal cost below the pre-merger level of either participating firm? General results cannot be easily obtained since the degree of price competition depends on the nature of product differentiation. Nevertheless, the results by Werden and Froeb (1994)[27] teach us some interesting results for an industry with symmetric product differentiation. They assume that a unit price increase by one firm increases the market share of all competitors by the same percentage amount. Werden and Froeb demonstrate the following result:

• If there are no internal efficiencies generated by the merger, except for fixed cost savings or output rationalisation, then the prices of all products in the industry will increase after the merger; the magnitude of the price increases are dependent on the market share of the different products.

Since products are differentiated, each product may have a different price. Therefore, the effects of a merger on prices are more involved. Werden and Froeb[28] find the following results on the magnitudes of price changes for the various products. First, the prices of the merging firms' products (weighted by their sales) increase by more than any of the competing firms' prices. Especially the price of the small firm's product involved in the merger increases. Second, competing firms with a large market share (for example due to a relatively low marginal cost) will increase price more than competing firms with a small market share.

Moreover, a similar picture seems to emerge as in the general Cournot model considered by Farrell and Shapiro: significant savings in marginal costs, below the lowest marginal cost of either partner involved in the merger, are required for prices to drop after the merger. Stennek (1997)[29] modifies the assumptions of the Cournot model in a different way, namely by introducing incomplete information between firms about each others' marginal costs. He shows that, under these conditions, the market is inefficient (in particular: more inefficient than under symmetric information) in short-term allocation of production

[27] Werden, Gregory J.; Froeb, Luke M., The Effects of Mergers in Differentiated Products Industries: Logit Demand and Merger Policy, Journal of Law, Economics, and Organization; 10(2), October 1994, pages 407-26.
[28] Ibid.
[29] Stennek, Johan: Horizontal Mergers without Synergies May Increase Consumer Welfare, unpub. Ms. Institute for International Economic Studies, Stockholm University, October 1996.

between firms. As a result, a merger may increase efficiency due to the pooling of information. Such information synergies may be large enough for price to fall and consumers to benefit from the merger.

2.2.1.2 Collusion theories

Firms may, under certain circumstances, sustain a cartel-like agreement also absent the opportunity to write legally binding contracts. A pre-condition is that the firms are able to detect and punish any firm under-cutting the agreed upon price, without the help of the legal system. Firm organized punishment may, for example, take the form of a price war that is limited in time. Economic models of collusion attempt to delineate the exact conditions under which such cartel-like agreements can be sustained by the firms.

A first approach to analyse the role of mergers for collusion assumes that there is initially no collusion, and asks whether and under which circumstances collusion is likely to be facilitated as a result of the merger. Recent theories of collusive behavior predict that there exists a positive relationship between market concentration and the likelihood of collusion. Formal and informal contributions by Stigler (1964)[30], Friedman (1971)[31], Davidson and Deneckere (1984)[32], Oliner (1982), among others, indicate that more concentrated market structures facilitate collusion for a variety of reasons. Increased concentration implies reduced profits from cheating by "stealing" competitors' market shares. Compte, Jenny and Rey (1998)[33] emphasize the role of capacity constraints for the sustainability of collusion. A firm's capacity constraint determines how attractive it is for the firm to under-cut the collusive price as well as how easy it is to flood the market to punish other firms that deviate. Compte, Jenny and Rey show how merger-induced asymmetries in capacity may affect the sustainability of collusion.

Following this approach, it has been demonstrated that the cost savings requirements for mergers to reduce price are smaller if firms collude rather than compete. The intuition behind this result is that firms do not compete anyway before the merger and succeed in (partial) collusion already before the merger. Furthermore, the existing collusion before the merger may create particular inefficiencies that are eliminated after the merger.

To explain the nature of these existing inefficiencies, consider first Schmalensee (1987)[34] and Harrington's (1991)[35] analyses. They study fully collusive regimes

[30] Stigler, George J.: Monopoly and Oligopoly by Merger, American Economic Review, Papers and Proceedings 40, 1950, sidorna 23-34.
[31] Friedman, James, 1971, A noncooperative Equilibrium for Supergames, Review of Economic Studies, 28, 1-12.
[32] . Davidson, Carl; Deneckere, Raymond, Horizontal Mergers and Collusive Behavior, International Journal of Industrial Organization; 2(2), June 1984, pages 117- 32.
[33] Compte, Olivier, Jenny, Frederic, and Rey, Patrick, Capacity Constraints, Mergers, and Collusion, mimeo, 1996.
[34] Schmalensee, Richard, Competitive Advantage and Collusive Optima, International Journal of Industrial Organization; 5(4), December 1987, pages 351-67.

based on models of (successful) bargaining. To illustrate, assume there are two firms, one with a low (constant) marginal cost, and another with at a high (constant) marginal cost. In a fully collusive agreement firms will bargain to allocate production such that the price lies in between two hypothetical monopoly prices: the price that the low cost firm would choose if it were a monopoly, and the – higher – price that the high cost firm would choose if it were a monopoly.

Now consider a merger between the two firms in such a fully collusive industry. A merger would simply rationalise production by transferring all production from the high cost to the low cost plant. As a consequence, the price drops to the lower monopoly price. Therefore, under full collusion a merger to monopoly reduces price even without any efficiencies other than output rationalisation.

One may argue that this reasoning assumes that firms can enforce a perfect cartel before the merger. Yet Verboven (1995)[36] shows that this result generalizes to industries in which only partial collusion can be sustained before the merger, i.e. a price above the Cournot level but below the optimal cartel allocation. In his model, the collusive outcome is determined by the sustainability constraints ensuring that no firm would defect, independent of the exact bargaining process. Verboven also shows that the condition for price to decrease is that the market share of the merging firms is sufficiently small. Furthermore, as the degree of sustainable collusion increases the tolerated market share of the merging firms also increases.

2.2.2 Total surplus

Most economists take the view that competition policy should not be designed solely to protect the interests of consumers. A common policy goal formulated by economists is the maximization of "total surplus", the sum of consumer surplus and producer surplus. Under this policy goal, transfers from consumers to producers due to price increases are not considered as a problem. However, increased prices yield an allocative inefficiency, i.e. a dead-weight loss due to sub-optimal production and consumption.

2.2.2.1 Williamsonian merger analysis

Perhaps the most influential contribution, which advocated the total welfare approach in merger analysis is by Williamson (1968)[37]. Williamson proposed to compare the dead-weight losses due to price increases after merger with the

[35] Harrington, Joseph E., Jr., The Determination of Price and Output Quotas in a Heterogeneous Cartel, International Economic Review; 32(4), November 1991, pages 767-92.
[36] Verboven, Frank: Corporate Restructuring in a Collusive Oligopoly, International Journal of Industrial Organization; 13(3), September 1995, sidorna 335-54.
[37] Williamson, Oliver, Economies as an Antitrust Defense: Reply, American Economic Review, 954-959.

internal efficiencies that are generated. Williamson concluded that cost savings need not to be very high to compensate for dead-weight losses induced by price increases. Figure 1 and Figure 2 illustrate Williamson's analysis. The "trade-off" framework is useful, though the conclusion that only small cost savings are required is not general, since this depends on how intense one assumes competition is before and after the merger. The degree of competition, both before and after merger, is essential in examining the price effects of mergers.

FIGURE 1.

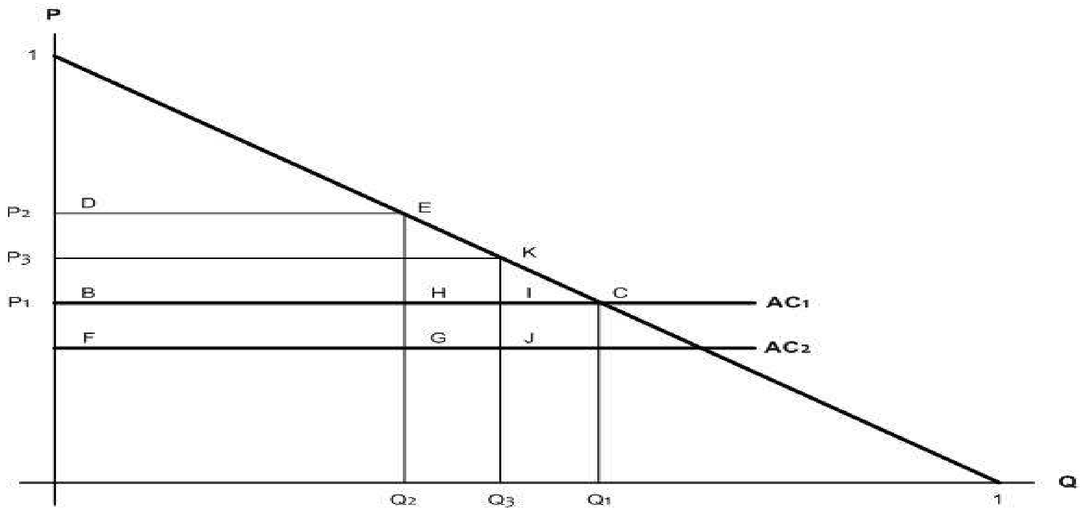


FIGURE 2.

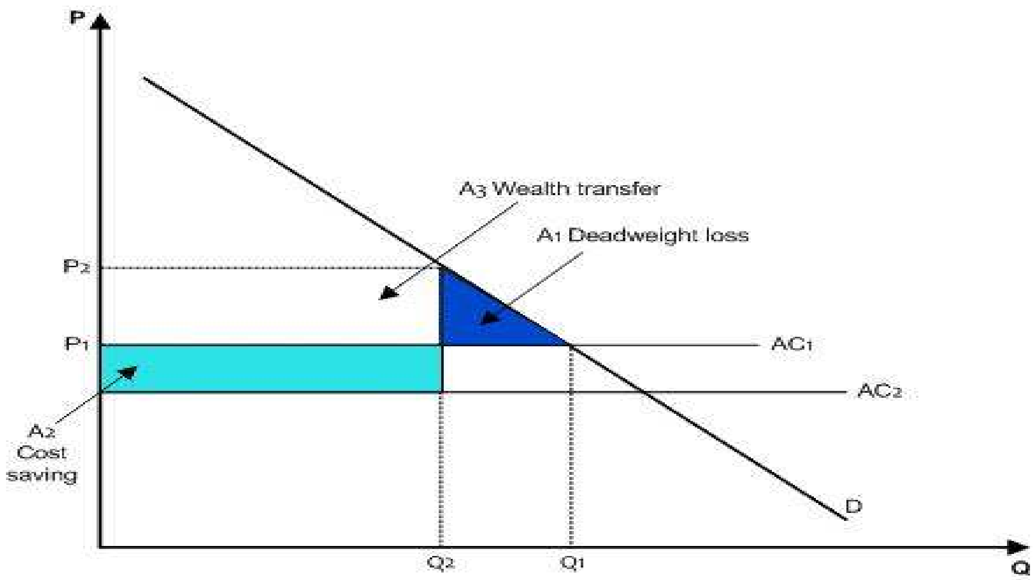
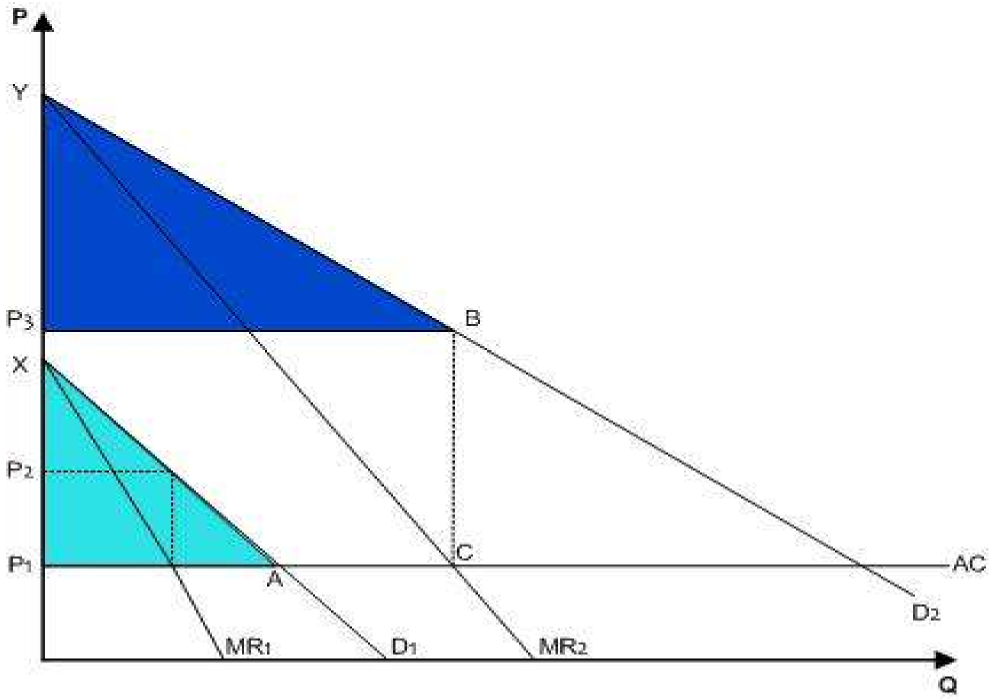


FIGURE 3.



Consider a homogeneous goods industry where unit costs are constant and equal to AC1 before the merger, and drop to AC2 after the merger, as illustrated in Figure 1. Consider three alternative scenario's on how behavior changes due to the merger:

(1) From perfect competition to monopoly

This is the simplest case to analyse. Total welfare before the merger coincides with total consumer surplus at the competitive price P1, indicated by the triangle ABC. At the competitive price, there is no producer surplus. After the merger, unit costs drop and the monopoly price P2 is charged. Total welfare is now the sum of consumer surplus, ADE, and producer surplus, DEFG. As a result, the change in welfare due to merger is the difference between the rectangle, BHFG, and the triangle, EHC.

Intuitively, the cost savings evaluated at post-merger production (BHFG) need to be traded off against the net losses from reduced consumption (EHC). The specific example on Figure 1, which considers a unit cost reduction by 25%, shows that the internal cost savings outweigh the losses from reduced consumption. But note that if we had considered a unit cost reduction by only 12.5%, the reverse would have been true. The total surplus is comprised by consumer surplus and producer surplus. However, these concepts cannot be measured directly. Hence, indicators are to be employed, such as market price and quantity as well as the development of fixed costs (where applicable). In the constellations with market barriers market price will increase as a consequence of a combination and hence quantity will decrease. The price increase will be stronger the more market concentration rises. Hence, the highest price increase stems from a transition from competition to a (collective) monopoly and quantity will decrease accordingly. Hence, consumer surplus will be reduced and producer surplus increases. As the effect on total welfare is ambiguous, a welfare trade-off is necessary taking into account the specific circumstances of the situation.

Results change substantially if no barriers to market entry are in place. While price rises at first due to the combination, new competitors entering the market will exert a downward pushing the price below its initial level. Accordingly, quantity decreases at first and then rises above its initial level. Incumbent producers' profits are increased initially and then reduced to an average return due to the entry of new firms. Consumer surplus increases. Therefore, welfare increases in all constellations without market barriers. This result underlines the importance of free market entry.

(2) From perfect competition to "partial monopoly"

This is the original scenario, considered by Williamson's article of 1968. Williamson thus assumes that a merger in an initially competitive industry "extends market power", but not to the monopoly extreme. Consider for example a price rise to P3 instead of P2. The result is a higher output after the merger, implying higher internal cost savings than in the first scenario, amounting to BIFJ. These need to be balanced against the losses from reduced consumption, which are now only the triangle KIC. The unit cost reduction by 25% generates internal cost savings, which by far exceed the losses from reduced consumption on Figure 1. In fact, under the assumed price increase of this example, total welfare would increase for any reduction in unit cost by more than 2%. This confirms the claim made by Williamson.

The difference between scenario 1 and scenario 2 shows that it is important to know the extent of the price increase after the merger. Scenario 1 had been considered by DePrano and Nugent (1969)[38] in a critical review of Williamson's analysis. Williamson replied that the drastic price rise to monopoly considered by DePrano and Nugent (1969) is unrealistic, since a merged firm needs to take into account the risk of entry when raising its prices. Entry can almost never be blockaded, argues Williamson, and therefore one may expect that a merged firm will follow a "limit pricing strategy", taking into account potential competitors as well as actual competitors.

The debate between Williamson and Deprano and Nugent illustrates the importance of predicting the extent of the price increase after a merger. In other words, it is necessary to properly assess the nature of post-merger competitive interaction.

(3) From "partial monopoly" to monopoly

This scenario stresses that one should also properly assess pre- merger conduct. Consider a merger in which the initial price is P3, which exceeds marginal cost

[38] DePrano, Michael E., ad Nugent, Jeffrey, B., Economies as an Antitrust Defense: Comment, American Economic Review, 947-953.

AC1. After the merger the marginal cost is AC2, and the monopoly price P2 is charged. In this scenario, total welfare changes from the area AKBI before the merger to the area AEFG afterwards. Therefore, the trade-off is between internal cost savings of BHFG and losses from reduced output of LKHI. In the example of Figure 1, which assumed a 25% reduction in unit costs, the internal cost savings would be sufficient. In fact, in the example any reduction in unit costs by 9% would suffice for welfare to increase.

In Figure 3, it is illustrated that if the dynamic efficiencies enable the combined firm to make higher quality versions of the current product at the same cost, then the demand curve D would shift outward. Continuing quality improvements would translate into a series of demand curves drawn further and further above and to the right of the original demand curve. If the demand curve shifts in a parallel fashion, the post-merger price will rise above P2, yet even if we consider only consumer effects (rather than total surplus), consumers may be far better off than they were before the merger.

A general intuition on the trade-off between internal cost efficiencies and the losses due to output reduction can be by considering a merger in industry which is initially non-competitive, and which causes a “small” reduction in total industry output, accompanied by a “small” internal cost efficiency. To assess the welfare trade-off, one therefore needs to have a good estimate of both pre-merger output and of pre-merger price-cost markups. Pre-merger output times the expected cost reduction would be approximately equal to the expected welfare gains. Pre- merger markups times the expected output reduction would be approximately equal to the expected welfare losses. Of course, the main empirical difficulty in comparing the expected gains to the expected losses is in the assessment of the expected cost reduction and the expected output reduction. Which types of cost savings are valid to apply the framework of Williamson? Note that Williamson’s formula does not depend on the actual type of efficiency that is realized; it is sufficient that the efficiency implies a reduction in average costs.

Therefore, all types of efficiency in principle qualify for a Williamsonian type of defence, provided, of course, that they involve sufficiently large average cost reductions. Nevertheless, a case may be made that efficiencies that involve a marginal cost reduction are superior to those that do not. This is because in this case, it may generally be expected that the price increase will be lower than when there is no reduction in marginal cost. Such a reallocation of output would be desirable if the merging firms are relatively inefficient (i.e. operate at a higher marginal cost) as compared to their competitors. A relative inefficiency of the merging firms would indeed exist if they have a relatively small market share. In sum, a small market share by the merging firms indicates their relative inefficiency, making a merger, which reallocates output to the competitors desirable. The opposite is of course also true: when two large firms merge to contract output, there will be a reallocation to relatively inefficient competitors so that the merger will create a negative externality. In this case, total welfare will only be positive if large internal efficiencies can be proven by the merger.

The main contributions of Farrell's and Shapiro's[33] approach are twofold: (1) they point out a potentially important effect that has traditionally been ignored in assessing merger: a reallocation of output to competitors; (2) they demonstrate that due to this effect mergers may be beneficial even when there are no internal efficiencies (or when internal efficiencies cannot be proven). Their analysis applies to Cournot competition.

In fact, the general message of their results also applies to other forms of oligopolistic interdependence. In particular, in the models of Bertrand competition with differentiated products of Davidson and Deneckere (1985)[39], Werden and Froeb (1994)[40] a price increase by the merging firms triggers price increases by the competitors. These positive responses are, however, typically less than the original price increase initiated by the merging firms. As a result, the market share of the merging firms decreases and a reallocation of production from the merging firms to the competitors take place. Similar to the Cournot model, such a reallocation of output would be desirable if the merging firms are relatively inefficient, as would be the case when they have relatively small market shares.

The relatively simple specific conditions on the market shares that are provided in Farrell and Shapiro's Cournot analysis do not generalize to Bertrand models with product differentiation. This is natural, since the product differentiation is market- specific, and no simple general description can be provided.

2.2.2.2 Externality analysis

Williamsonian analysis evaluates the efficiency gains from unit cost savings over the total industry output. This approach is justified under the assumption that all firms in the industry participate in the merger. Of course, in practice, most mergers only take place among part of the firms in the industry. In this case, one should evaluate the internal cost savings at the – smaller – output of the merging firms. Another difficulty with Williamsonian analysis is that one needs to be able to measure the actual cost reduction that will be generated by the merger. It is, of course, in the interest of the merging firm to claim as high efficiencies as possible.

Farrell and Shapiro (1990)[41] propose a methodology for evaluating mergers among some of the firms in the industry without a need for relying on internal efficiency claims. In a general Cournot setting, they propose to evaluate the externality that is created by the merger. The externality of a merger consists of the sum of the effect on consumers and on the rival firms who did not participate in the merger. Farrell and Shapiro argue that if the externality is positive, then the merger must also increase total welfare since the proposed merger may be expected to also be profitable (otherwise it would not be proposed in the first place).

[39] Ibid. p.16
[40] Ibid. p.15
[41] Ibid. p.14

Farrell and Shapiro[42] derive conditions under which price-increasing (i.e. output-reducing) mergers will generate a positive externality. In particular, they find intuition for their result is clear. When two (or more) firms merge in order to reduce output, there is an expansion of output by the competitors. The expansion by the competitors is less than the contraction of the merging firms. The result is an overall fall in output, accompanied by a reallocation of output from the merging firms to their competitors.

2. 3. Static and dynamic efficiencies

The general approach of the European Commission to the analysis of efficiencies in merger assessments is described in the Commission's horizontal merger guidelines. Also the recently issued draft guidelines on non-horizontal mergers discuss the analysis of efficiencies. Besides referring to the section on efficiencies in the horizontal merger guidelines, the draft guidelines on non-horizontal mergers also contain some issues specific for efficiency analysis in this type of mergers.

The guidelines do not express any "preference" for either "static" or "dynamic" efficiencies, and indeed do not define either of the two terms. The guidelines rather set out a general framework that allows for the analysis of both types of efficiencies in a pragmatic way taking account of the specificities of each case. However, it is also clear that the nature of dynamic efficiencies may make it harder for merging parties to live up to the standards set out in the guidelines than would be the case for static efficiencies. The horizontal merger guidelines explain in para. 83 that "in general, the later the efficiencies are expected to materialise in the future, the less weight the Commission can assign to them". The fact that dynamic efficiencies may be expected to take longer time to materialise than static efficiencies may therefore in itself diminish the weight that the Commission can give them in its analysis.

As mentioned above there is no official Commission definition of static and dynamic efficiencies. However, in a 2003 study for the Commission Damien Neven and Paul Seabright defined the terms in the following way[43]: "Static efficiencies are those that give rise to one-off improvements in production possibilities of the merging parties (for instance an improvement in the level of their productivity).

Dynamic efficiencies are those that give rise to improvements in the growth of production possibilities (for instance, an increase in the growth rate of productivity)." They went on to explain that "unlike static efficiencies that affect the process of production of the firm’s ordinary output, dynamic efficiencies affect the process of innovation within the firm. All firms undertake innovation, even if it is sometimes confined to rather humble processes of internal

[42] Ibid.

[43] Neven, Damien; Nuttall, Robin; Seabright, Paul: Merger in Daylight, The Economics and Politics of European Merger Control, Centre for Economic Policy Research, London, 1993.

organisation; for some firms, though, a very large proportion of time, effort and resources are devoted to innovation rather than to ordinary production."

Following Farrell and Shapiro, Neven and Seabright distinguish between "technical efficiencies" and "synergies". Technical efficiencies result from the "recombination of firms' assets which do not affect firms' joint production capabilities" while synergies "expand the firm production capabilities beyond the joint production capabilities of the merging entity." Neven and Seabright argue that, "even though an ongoing process of improvement in efficiency should not be confused with a one-off improvement that is merely taking some time to materialise, it is worth noting that efficiencies which are not associated with synergies are likely to be realised within a short period of time, whereas synergies will take more time.

Efficiencies which are not associated with synergies can be achieved merely by combining the physical assets of the merging parties, or possibly by applying well known improvements in management practices. They will be ones that are foreseeable without difficulty prior to the transaction and to which the merging parties can realistically commit themselves. Precisely because such improvements can be foreseen and made subject to prior commitments they will usually be realised within a short period (say one year) after the transaction."

At the same time, it should be noted that technical efficiencies may often not be merger specific because they could also be realised by each firm separately absent a merger, especially when the market concerned is competitive pre-merger. Conversely, Farrell and Shapiro argue that it may be an indication of the existence of market power pre-merger if available technical efficiencies have not already been realised by firms independently. Some of the implications of these arguments may be useful in the assessment of efficiencies. For example, competition agencies may want to pay more attention to scale economies when they are associated with a recent change in technology or production techniques. Neven and Seabright further argue that, in contrast to technical efficiencies, "the recombination of intangible assets associated with synergies will typically involve changes in the incentives of stakeholders in the merging parties (workers, managers, shareholders or creditors) in new ways. They will be ones that cannot be foreseen with the same degree of confidence, and to which the merging parties cannot make credible commitments, because they will not materialise without a complementary change in the behavior of the stakeholders concerned. Such improvements will typically not be realized until some time after the transaction."

Neven and Seabright provide a table illustrating the different categories of efficiencies. The table shows that rationalisation and scale economies tend to be of a static nature while synergies are likely to more dynamic in nature.

	Static	**Dynamic**
Rationalisation and scale economies	Reallocation of production between plants of merging firm Closure of loss making activities Merger of retail networks Improved production control methods	Implementation of systematic investment appraisal methods
Synergies	Exploitation of complementary brands	Pooling of R&D divisions Complementarities between one firms' marketing and another firms' design skill Deployment of a firm's reputation to the assets of the other Deployment of a firm's organizational assets to the operation of the other.

As outlined above, dynamic efficiencies in principle can result in either marginal or fixed cost reductions. However, to the extent that they relate to fixed costs and dynamic effects, they tend to be not only difficult to verify, but the effect on consumer welfare is also less certain. The Commission applies a consumer welfare standard in its merger assessment. Thus, efficiencies that result in a reduction of marginal costs are à priori more likely to affect the outcome of an investigation because marginal cost reductions create immediate incentives for a firm to set lower prices than absent the efficiency. By contrast, the effect of fixed cost reductions on market outcomes is less immediate and subject to a number of potential obstacles.

Fixed cost reductions, particularly where the costs are associated with sunk investment, reduce the minimum mark-up on marginal costs required for a firm to profitably compete in a market. Lower fixed costs, thus, tend to induce firms to expand existing operations or enter into new markets and thereby intensify competition. In principle, fixed cost reductions therefore have the potential to benefit consumers.

However, especially with respect to entry, the consumer benefit is likely to occur only in the long-run (i.e., over more than one investment cycle). In addition, market inefficiencies may prevent the increased entry and, hence, consumer benefit from materializing even in the long run. Such potential inefficiencies include, for example, externalities, asymmetric information and imperfect capital markets. Hence, while the link between lower fixed costs and incentives to invest is straightforward in principle, the effect on long-term market performance is dependent on a number of parameters and, thus, uncertain.

As a result, the Commission's assessment of efficiencies, especially in merger cases, has tended to concentrate on potential reductions in marginal costs. By contrast, reductions in fixed costs (such as overheads, research & development or financing) have not normally been invoked as efficiency in the Commission's decision practice. The same applies to dynamic efficiencies. The rationale of this approach is that predictions about longer-term market outcomes are notoriously difficult, especially within the time limits of a merger investigation. In addition, for dynamic effects, the theoretical basis is less developed and difficult to apply empirically. Moreover, the European courts have recently applied a high burden of proof for predictions about future market outcomes that depend on a chain of successive events.

The Commission's reluctance to assess efficiencies that are relatively distant and uncertain is mirrored by its analysis of potential competitive harm in merger investigations. Here, too, the Commission tends to limit itself to well-established theories of harm that can be verified within the time limits of the EU Merger Regulation and that allow the competition authority to establish a direct link between a merger and consumer harm (or the absence thereof). In particular, the Commission would not normally find competitive harm based on dynamic effects that cannot be empirically verified or where there is no firmly established economic theory to support a finding of significant impediment of effective competition.

The Commission's assessment is thus symmetric with regard to the pro- and anti-competitive effects of a merger. However, it is true that by disregarding entirely dynamic efficiencies a competition agency may forego the potential consumer benefits from these effects. Where a forward-looking analysis of future effects is particularly complex, an ex-post analysis of past events may provide clues towards a better understanding of the link between mergers and dynamic efficiencies. Some basic analysis is possible on a case-by-case basis and the Commission has regularly applied it and orientated its enforcement policy accordingly. For example, volatile market shares and frequent entry and exit often point to dynamic industries where no firm enjoys sustained market power.

The opposite is true where large incumbents have enjoyed stable, high market shares and significant profits over extended periods of time. A large proportion of cases prosecuted by the Commission fall in the latter category, so a degree of caution towards long-run or dynamic efficiency claims appear not unreasonable in these settings. It would therefore in general seem appropriate that merging parties provide the necessary evidence for an efficiency defence involving dynamic efficiencies or fixed cost reductions in a specific case.

2.4. Empirical evidence

Empirical studies made in 2001[44] have identified facts in relation to the impact of mergers on profitability or welfare. According the studies mergers tend to:

[44] Trichy, G. (2001) "What Do We Know About The Success and Failure of Mergers" Journal of Industry Competition and Trade, 1(4) p. 347-394.

• Reduce the profit margins of the acquiring firm.
• Have no obvious positive effect on either sales or market shares.
• (Horizontal) mergers tend to reduce the level of R&D Investment.
• Take-over's involving innovative small enterprises often have a rather strong negative impact on the performance on these firms[45].

Furthermore, empirical studies show that merged firms tend to perform better if they were pre-merger active in similar markets or produced similar products. They also tend to perform better if the means of payment is cash, in contrast to stock, and if the merging firms have a similar style of management[46].

Empirical evidence regarding the impact of mergers on efficiencies per se is still unclear. However, in an attempt to distinguish between efficiency gains and market power effect it was found that at best half of the mergers are profitable[47].

An empirical study like this might fuel views such as; a high rate of merger failure shows that merger related efficiencies are negligible. However, Miguel de la Mano in Enterprise paper No 1131[48] suggests that this view is a mistake since it is still necessary to determine whether significant efficiency gains may be associated with the remaining half of successful mergers, as oppose to the increased market power and since efficiency gains may be significant even though the competitive environment post-merger may be tougher than the merging parties had anticipated.

Mano continues to state that the empirical evidence shows that the conservative assessment of efficiencies by the Commission is justifiable and that the Commission must be aware of managers' tendencies to overestimate the future efficiency gains from mergers.

What is more, the empirical literature does provide some support for the fear that horizontal mergers increase market power. Second, there seems to be no support for a general presumption that mergers create efficiency gains. Third, in particular cases, however, mergers do create efficiencies. Empirical evidence indicates that costs savings are passed-on to consumers in the form of a downward push on price[49]. It appears that there may be substantial variance in the efficiency gains from mergers. (Unfortunately, however, there does not exist any formal statistical testing that clearly indicates that the variance is high.) In sum, the empirical evidence suggests that controlling mergers is important, and that the presence and magnitude of efficiency gains may need to be examined on a case-by-case basis[50].

[45] Ibid. p.347-394
[46] Ibid. p.347-394
[47] Gugler, K., D.C. Mueller, B.B. Yurtoglu and C. Zulehner, "The Effects of Mergers: An International Comparison" International Journal of Industrial Organization, (2002) Forthcoming
[48] Enterprise Papers No 11 op. cit. p.6
[49] Goldberg, Pinelopi Koujianou; Knetter, Michael M., Goods Prices and Exchange Rates: What Have We Learned?, Journal of Economic Literature; 35(3), September 1997, pages 1243-72.
[50] Goldberg, Pinelopi Koujianou; Verboven, Frank, The Evolution of International Price Dispersion in the European Car Market, C.E.P.R. Discussion Paper 2029, 1998.

The evidence on share prices [51], profitability and consumer prices may not only tell us something on the relative importance of market power and efficiency motives for merger. It may also indicate how the gains or losses from mergers are distributed between different groups in the economy. If a generalization is to be drawn from the profit-flow studies, it would have to be that mergers have but modest average effects on the profitability of the merging firms. In addition an important potential advantage of event-studies[52] is that stock prices reflect the present value of expected future profits created by firms, under the assumption that the stock market is efficient[53]. This approach differs fundamentally from the profitability studies based on accounting data. Accounting profits only refer to current profits, which may be subject to exceptional temporary gains or losses; in addition, the accounting profits depend on the precise methods that have been used to classify revenues and costs. Since competition policy in the E.U. and other jurisdictions are partly motivated by distributional concerns, such knowledge is crucial for the proper design of merger control.

[51] Jensen, Michael C.; Ruback, Richard S.: The Market for Corporate Control: The Scientific Evidence, Journal of Financial Economics;11(1-4), April 1983, pages 5-50.

[52] Jarrell, Gregg A.; Brickley, James A. M.; Netter, Jeffry: The Market for Corporate Control: The Empirical Evidence Since 1980, Journal of Economic Perspectives; 2(1), Winter 1988, pages 49-68.

[53] EFFama, "EfficientCapital Markets: a Review of Theory and Empirical Work"(1970) 25Journal of Finance 383, BE Eckbo, "Horizontal Mergers, Collusion, and Stockholder Wealth" (1983) 11 Journal of Financial Economics 241, R Stillman, "Examining Antitrust Policy towards Horizontal Mergers" (1983) 11 Journal of Financial Economics 225, J Stennek and S-O Fridolfsson, "Why Event Studies Do not Detect Anticompetitive Mergers" (2000), WP, Research Institute of Industrial Economics, Stockholm, available at http://swopec.hhs.se/iuiwop/ papers/iuiwop0542.pdf, 6.

3. Development of EC Merger Regulation

3.1. History of development

The EC competition law has its origins at the very beginning of the European integration. In 1951, the Treaty of Paris under its Article 66.7 provided that the companies which "have or acquire on the market (…) a dominant position which protects them from effective competition in a substantial part of the common market"[54] should be prohibited.

In 1957, the Treaty of Rome stated that one of the Community aims was to create a system ensuring that competition would not be distorted in the common market[55]. Further, the Treaty established the competition policy of the European Community by implementing a new chapter titled "Rules Governing Competition" which contains antitrust framework applying to enterprises. It implied more specific provisions under Articles 85 (now Article 101) and 86 (now Article 102), which until now act as a basis for most of the secondary legislation concerning competition, e.g. EC Merger Regulation.

Article 101 contained a prohibition of all agreements between undertakings, which might affect the Community trade and which prevented, restricted or distorted competition on the single market, particularly agreements which fixed purchase or selling prices, limited production, development or investment, etc. However, in paragraph 3 the article allows some exemptions from the prohibition, i.e. those agreements, which result in improvement of production or distribution of goods, or to promotion of technical and economic progress, "while allowing consumers a fair share of the resulting benefit".

The provisions of Article 102 enclosed an understanding of any abuse of a dominant position, as incompatible with the single market in situation of influencing trade between Member States. The conditions under which such an abuse takes place are similar to those presented in the Article 101, i.e. fixing prices, limiting production, etc. However, different from the previous article,
Article 102 does not allow any exemptions from the prohibition. Although the general provisions of Article 85 and 86 of the Treaty of Rome impose the prohibition of some concentrations, they do not provide any specific rules to all the merger aspects and this gap had to be filled out by the Court of Justice case law[56].

In 1989 the Council of Ministers implemented the Regulation No 4064/89 on the control of concentrations between undertakings[57], which built specific rules of law directed at significant mergers. The Regulation itself outlined conditions under which a concentration between undertakings fell under prohibition of Article 101 and 102 TFEU. It applied to all the concentrations which had a

---

[54] The Treaty Establishing the European Coal and Steel Community, 1951, art. 66.7;
[55] Article 3 (f) of the Treaty Establishing the European Economic Community, Rome, 25.03.1957 (non-consolidated version) (Treaty of Rome);
[56] Rules applicable to firms: introduction, available at http://europa.eu/scadplus/leg/en/lvb/l26102.htm;
[57] OJ L395, 30.12.1989;

Community dimension which was measured by its size (in terms of "Community-wide turnover") and influence on the Community market (international character).

After ten years of existence of the Merger Regulation, in 2001 the Commission published Green Paper which started a wide-ranging debate on the reform of the system of merger control. Consequently, the Council adopted in 2004 the new Merger Regulation No 139/2004[58].

Under this reform, the merger control regime was said to alter towards more significant flexibility in procedural terms, higher effectiveness in jurisdictional terms and greater transparency in substantive aspects. The jurisdictional organization was improved in order to streamline the process of referrals to and from the Commission. The rewording of substantive test eventually caused that oligopolies and all the other post-merger situations which threaten competition became covered by the test[59].

3.2. The dominance test under the Old merger regulation

A concentration within the scope of the Merger Regulation shall be appraised in accordance with the objectives and provisions of the Merger Regulation with a view to establish whether or not they are compatible with the common market33.

The reform of the merger regulation brought a change in the substantive criterion for apprising mergers. The substantive criterion of merger policy decides whether or not a concentration is compatible with the common market. Under Old Merger Regulation the test for compatibility with the common market is stated as following:

"A merger which creates or strengthens the dominate position as a result of which effective competition would be significantly impeded, in the common market or in a substantial part of it shall be declared incompatible with the common market[60]."

3.3. Scope and assessment

The substantive criterion used in Old Merger Regulation is called a dominance test and it is focusing on whether or not the concentration will create or strengthening a dominant position in the common market[61]. The dominance test follows a more structural approach than the new SIEC-test (Substantial Impediment of Effective Competition), used under the New Merger Regulation,

---

[58] Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation), O.J. L24/1;
[59] Merger control: Merger review package in a nutshell, http://ec.europa.eu/comm/competition/publications/special/3_merger.pdf;
[60] Merger Regulation (EEC) No 4064/89 Article 2 (3)
[61] Voigt, S " Schmidt, A;"Switching to Substantial Impediments of Competition (SIC) Can Have Substantial Costs- SIC" E.C.L.R 2004, 25(9) 584-590 p. 584.

as it focuses on market shares and on the market definition[62].

In order for a concentration to become prohibited it must fulfill the requirements set out in the substantive criterion. The dominance test could be looked upon as being constructed of two "limbs". The first one requiring the concentration to create or reinforce a dominate position in the relevant market and the second limb requiring the concentration to result in an impediment of effective competition. However, whether or not the two limbs were independent of each other, representing two parts in the overall assessment of the concentration or two distinct steps in the assessment of the concentration was always a mater of uncertainty[63].

Most cases raising competition concerns under the dominance test involve the likely creation or strengthening of a single firm in a dominant position. Nevertheless, when looking at the case law it is clear the test has been applied in a dynamic manner. For instance the test has been applied in cases involving collective dominance[64] such as the Airtours/ First Choice[65] case or in cases such as Vivendi/Canal+/Seagram[66] where the test was applied to anti-competitive effects resulting from mergers between no-competing firms (vertical merger). The test has also been applied in cases such as Tetra Laval/Sidel[67] where the merging parties where acting in neighboring product markets.

The approach to efficiencies under the EC Merger Regulation has always been controversial. Although Article 2(1) of the Old Merger Regulation states that technical as well as economic progress has to be taken into account provided that it is to the consumers' advantage and does not form an obstacle to competition, little weight has been given to efficiencies in the merger assessment under the Old Merger Regulation. In most cases the Commission has recognized efficiencies as a pro- competitive effect generated by the merger, but there are also cases were efficiencies have been seen as a penalizing factor.

3.4. The SIEC test:

After the General Court had overturned the Commission's decisions in the case of

[62] McDavid, J "Proposed Reform of the EU Merger Regulation: A U.S Perspective" (2002) 17 Antitrust 52, at p.54

[63] Fountoukakos, K " Ryan, R;"A Substantive Test for EU Merger Control" E.C.L.R, 2005, 26(5), p. 277-296

[64] Many mergers are created in markets that show signs of being fairly concentrated already before the merger has taken place. Where a merger results in a new market leader the test for single firm dominance will be appropriate, however if the merger takes place in a market with few competitors but where no new market leader is created, competition will still be reduced and the merger will be detrimental to competition. The only way to address this problem under the dominance test is to apply the notion of collective dominance asking whether or not a group of firms, to which the merging firms belong, can be considered to hold a position of collective dominance. Andreas Weitbrechet, "EU Merger Control in 2004- An Overview" E.C.L.R, 2005, 26(2), p. 67-74.

[65] M1504 Airtours / First Choice and Air tours v Commission (Case T-342/99) 6 June 2000

[66] Vivendi/Canal+/Seagram (Case COM/P 2050) 13 October 2000

[67] Ibid., p. 6

Airtours/ First Choice[68], *Schneider/ Legrand*[69] and *Tetra Laval/ Sidel*[70] the Commission received lots of criticism which enhanced the need for a reform of the merger control[71]. It had been long debated whether or not the Commission had the competence to intervene in these situations and if there was a possible "gap" in the dominance test. Some commentators wanted to change the test to a SLC test (Substantive Lessening of Competition) used in many other countries for example Canada, USA and UK. This test was considered to be more flexible and more economics-based[72], superior in dealing with efficiency arguments and would and according to its agitators closes a possible "gap" that the dominance test might have. Furthermore the commentators argued that a change to the SLC test would lead to convergence in global merger control.

As a compromise between these two tests, the SIEC-test, (Significant Impediment of Effective Competition) was finally agreed upon. The SIEC test was supposed to bring about the best from both tests making the assessment more flexible with stronger focus on economics and effects. The proposal of the New Merger Regulation was the result of a long period of review starting in 2000 with the submission of a Report to the Council on the functioning of the Old Merger Regulation and in January 2004 the Merger Regulation came into force[73].

The reform concerned jurisdictional, procedural and substantive issues aiming to substantially improve the merger control system. This was made through minimizing transaction costs for businesses through the one-stop- shop system and through improving transparency and speed of the assessment procedure, thus improving legal certainty[74]. As the Commissioner Mario Monti said "The new law will equip the European Union, with a modern more flexible and efficient legislation…"[75]

The new test came as a solution to close the"gap", to retain past precedent, to avoid confusion with Art. 102 and to enhance legal certainty. This was attained through a new wording as well as by reversing the two limbs. Dominance is the main but not only way through which SIEC may result from a merger.

Accordingly to 4064/89 Art 2(3), "A concentration which creates or strengthens a dominant position as a result of which effective competition would be significantly impeded in the common market or in a substantial part of it shall be declared incompatible with the common market", whereas the new wording- 139/2004 Art. 2(3) states: "A concentration which would significantly impede

[68] Ibid. p.33
[69] Schneider Electric SA v. Commission, (Case T-310/0), 22 October 2002
[70] Ibid. p.6
[71] Monti, M; European Commissioner for Competition Policy, "Merger control in the European Union: a Radical Reform", European Commission/IBA Conference on EU Merger Control, Brussels, 7 November 2002.
[72] Schmidt, J; "The new ECMR: "Significant Impediment" or "Significant Improvement" Common Market Law Review 41: 1555-1582, 2004 p. 1564
[73] Commission Regulation 802/2004 implementing Merger Regulation No 139/2004
[74] I. Kokkoris, "The Reform of the European Control Merger Regulation in the aftermath of the Airtours Case- the Eagerly Expected Debate: SLC v Dominance Test" E.C.L.R. 2005, 26 (1), p. 37-47
[75] Press release. IP/04/07 "EU gives itself new merger control rules for 21st. century."

effective competition, in the common market or in a substantial part of it, in particular as a result of the creation or strengthening of a dominant position, shall be declared incompatible with the common market"[76].

The change is that the new test puts an end to legal uncertainty and focuses ECMR analysis on the real issues.

3.5. Scope and assessment

The emphasis in the new test is whether or not the concentration will impede effective competition in the common market or a substantial part of it. This corresponds to the second "limb" of the old dominance test. The former decisive criteria; whether or not the concentration results in the creation or strengthening of the Common Market, has now been transformed into the prime example of an impediment to effective competition. This means that it is no longer crucial that a concentration, to be caught by the Merger Regulation, must create or strengthen a dominant position of the merger, it is enough that the concentration causes impediment to effective competition. Overall the new substantive test puts less focus on market dominance and market structure and focuses more on competitive effects of the merger[77]. This approach has open up for a more extensive evaluation of efficiencies in the assessment of the concentration.

Furthermore, the fact that the test states that effective competition is impeded "in particular" as a result of the creation and strengthening of a dominant position, may eliminate any previous concerns about whether or not it is a two or one limb test[78]. The new substantive test is one limb test focusing on whether or not the concentration is impeding effective competition.

3.6. The effects of the reform

Due to the change of the substantive criterion in the merger review under the New Merger Regulation's concerns were raised about an increased discretion on the behalf of the Commission. Under the new substantive criterion the Commission has the power to challenge concentrations that significantly impede competition but not necessarily creates or strengthen a dominant position in the market. What does then "significantly" impede effective competition mean?

This term could be interpreted in many different ways, left to the discretion of the Commission. The new wording of the substantive criterion in the New Merger Regulation may be seen to have increased the Commission's power. However, the Commission has made clear that the policy under the new substantive test will not be more interventionist than the policy under the old

[76] Merger Regulation (EC) No 139/2004, Article 2(3).
[77] Colley, L;" From "Defence" to "Attack"? "Quantifying Efficiency Arguments in mergers" E.C.L.R 2004, 25(6) p. 342-346.
[78] Fountoukakos & Ryan opt.cit. p. 277-296

dominance test[79].

It was apparent from the reform and the discussion leading to the reform that the Commission had shown a willingness to have a more economic-based approach, focusing more on the effects of effective competition. This could be seen as a step to get in line with US merger control and it might help reduce the tension between the US competition authorities and the Commission shown in for example the *General Electric/ Honeywell*[80] case.

In 2001, American advanced technology and production companies conducting business also in the EU decided to enter into a merger agreement, under which GE would have taken over Honeywell. In this case, because of the possibility of the merging parties to bundle products and services, the Commission concluded that the merger of GE and Honeywell would lead to the creation or strengthening of a dominant position on the aircraft production market, and therefore should be declared incompatible with the common market. However, the same case was held in the USA and the merger was approved by American antitrust institutions[81]. According to US Department of Justice (US DoJ), efficiency and aggressive competition benefit consumers, even if they force other companies lose market shares or even withdraw from a market.

3.7. The Horizontal merger guidelines

In order to reduce confusion and to increase legal certainty the Commission has published a notice on how the Commission assesses horizontal mergers: the Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings. Through its control of "horizontal mergers", the Commission prevents mergers that would be likely to deprive customers of benefits such as low prices, high-quality products, a wide selection of goods and services, and innovation.

The purpose of the notice is to provide guidance as to how the Commission assesses "horizontal mergers" where the undertakings concerned are actual or potential competitors on the same relevant market. The Guidelines also clearly illustrate the criteria for the assessment of efficiencies. The Commission's assessment of mergers normally entails:

- Definition of the relevant product and geographic markets;

- Competitive assessment of the merger[82].

Article 2 of the New Merger Regulation states that the Commission has to appraise concentrations within the scope of the Regulations with a view of

[79] Commission Press Release 20/01/2004, MEMO 04/09.
[80] General Electric/ Honeywell (Case COMP/M. 2220), 3 July 2001
[81] GE-Honeywell: the US Decision, speech by Deborah Platt Majoras, US Department of Justice, 2001, http://www.usdoj.gov/atr/public/speeches/9893.pdf, p. 2;
[82] http://europa.eu/legislation_summaries/competition/firms/l26107_en.htm

establishing whether or not they are compatible with the common market. For that purpose the Commission must assess whether or not a concentration would significantly impede effective competition.

The Commission will assess the relevant product and geographical market and then further make a competitive assessment of the mergers. In order to assess the foreseeable impact of a merger the Commission will analyze the possible anti-competitive effects and relevant countervailing factors of the mergers in the relevant market such as buying power, efficiencies and barriers to entry.

The guidelines mention that there are two main ways in which horizontal mergers may significantly effective competition;

by "eliminating important competitive constraints on one or more firms, which consequently would have increased market power, without resorting to coordinated behavior (non- coordinated effects)"

and by "changing the nature of competition in such a way that firms that previously were not coordinating their behavior, are now significantly more likely to coordinate and rise prices or otherwise harm effective competition." (Co-ordinated effects).

Moreover, article 101(3) of the horizontal merger guidelines refers to efficiency gains and the conditions they must fulfill so as to be weighed against the potential negative effects of, for example, limiting competition for the market, which stimulates innovation.

3.7.1. Non –coordinated effects

A merger may significantly impede effective competition in a market by removing competitive constraints. The most direct effect of the merger will be the loss of competition between the merging firms. This might result in, for instance, increased prices. For example prior the merger the two firms were competing about the consumers. If one firm raised its prices consumers would most likely switched to the other competing firms' product causing less profit for the firm that increased its prices. When two competitors merge these competitive constraints are removed. Non- merging firms might also benefit from the merger. The reduction in these competitive constraints could lead to significant price increase of market power in the relevant market, which can affect the consumer welfare. A merger giving rise to such non-coordinated effects (elimination of important competitive constraints) will, generally, significantly impede effective competition by creating or strengthening a dominant position of a single firm.

A number of factors may influence whether significant non- coordinated effects are likely to result from mergers. One factor is whether or not the merging firms have large market shares (¶ 27); another factor may be if the merging firms are close competitors (¶ 28-30). The higher degree of substitutability between the merging firms' products the more likely it is that the merging firms will increase prices significantly.

Other factors that might influence, whether significant non- coordinated effects are likely to result from a merger, might be if costumers have limited possibilities to switch supplier (¶ 31), either because they face substantial switching cost or because there are few alternative suppliers or if competitors are unlikely to increase supply if prices increase (¶ 32-35) (mergers particularly in homogenous good markets). Further factor that might influence are if the merged entity is able to hinder expansion by competitors or if the merger eliminates an important competitive force (¶ 36).

3.7.2. Co-ordinated effects

Section 2.1 of the Guidelines explains coordinated effects thus:

"A merger may diminish competition by enabling the firms selling in the relevant market more likely, more successfully, or more completely to engage in coordinated interaction that harms consumers. Coordinated interaction is comprised of actions by a group of firms that are profitable for each of them only as a result of the accommodating reactions of the others. This behavior includes tacit and express collusion and may or may not be lawful in and of itself".

The Guidelines continue:

"Successful coordinated interaction entails reaching terms of coordination that are profitable to the firms involved and an ability to detect and punish deviations that would undermine the coordinated interaction. Detection and punishment of deviations ensure that coordinating firms will find it more profitable to adhere to the terms of coordination than to pursue short term profits from deviating, given the costs of reprisal".

In short, coordinated interaction requires not only that competitors reach an agreement, but also that it is possible to detect and punish firms that breach the agreement.

Coordination becomes easier, and therefore more likely, as a market becomes more concentrated. But high concentration is certainly not a sufficient condition for successful coordination. Among the factors that the Guidelines suggest may also be relevant to the assessment are:

"the availability of key information concerning market conditions, transactions and individual competitors; the extent of firm and product heterogeneity; pricing or market practices typically employed by the firms in the market; the characteristics of buyers and sellers; and the characteristics of typical transactions".

The Guidelines add that where there has been collusion in the past, conditions in that market are likely to be seen as conducive to coordination. There is a relationship between market conditions and the likelihood of coordinated conduct.

At one extreme are markets where, despite concentration, the conditions are unfavorable to successful coordination – where products are differentiated and demand fluctuates unpredictably, for example. It may be expected that coordination would then be unlikely without recourse to an explicit collusive agreement. Even with an agreement, coordination may prove unsustainable, given the stresses and strains of potential cheating.

Moving along the spectrum to conditions that are increasingly conducive to coordination reduces the need for oligopolists to reach an explicit agreement. Indeed, in markets that are "perfectly conducive to coordination", a collusive outcome (in game theory terms), with prices approaching the monopoly level, can be expected without any agreement or communication between firms[83].

However, the agencies accept that markets that are perfectly conducive to coordination will be rare, and that some form of contact or communication between firms will generally be necessary to hold the coordination together[84].

The Horizontal Merger Guidelines set out in some detail the factors that, in the view of the agencies, are conducive to reaching terms of coordination, detecting deviations from those terms, and punishing such deviations. This part of the Guidelines reflects both the agencies' enforcement experience and insight drawn from economic analysis of oligopoly.

[83] It could be argued that interdependent pricing in such circumstances is not an example of coordinated interaction: each firm acts unilaterally and rationally in its own interests with no express or even tacit meeting of minds. The standard analysis of unilateral effects asks whether, as a result of a merger, a firm will be able to raise prices because part of the cost of the price increase, from lost sales, is internalised by the acquisition of a competitor. It could be argued, if a merger increases the awareness of oligopolists' interdependence, that the merged firm would, in a similar way, factor the effects of that into its own unilateral pricing decisions. However, the view of the US agencies is that interdependent pricing should still be treated as an example of coordinated interaction as giving rise to a collusive outcome.

[84] There is a considerable literature relating to the question how oligopolistic pricing should be dealt with under the Sherman Act where there may be no direct evidence of an unlawful agreement. It includes Turner (1962), Posner (1969), Hay (1982), Baker (1993) Lopalka (1996). This is not an issue for merger control, however. As the Guidelines state, the US agencies are able to challenge a merger under Section 7 of the Clayton Act whether or not the coordinated behaviour that concerns them would be unlawful under the Sherman Act.

4. Efficiencies under current EC merger control

4.1. Efficiencies in Horizontal Mergers

4.1.1. Legal framework

Article 2(1) of the ECMR also contains a list of factors that the Commission must, where appropriate, include in its economic analysis. Pursuant to article 2(1)(b), the Commission shall take into account, 'the development of technical and economic progress provided that it is to consumers' advantage and does not form an obstacle to competition'. This provision is recognized by the Commission as a legal basis for the consideration of merger-specific efficiencies.

The explicit recognition follows from recital 29 of the ECMR:

In order to determine the impact of a concentration on competition in the common market, it is appropriate to take account of any substantiated and likely efficiencies put forward by the undertakings concerned. It is possible that the efficiencies brought about by the concentration counteract the effects on competition, and in particular the potential harm to consumers, that it might otherwise have and that, as a consequence, the concentration would not significantly impede effective competition, in the common market or in a substantial part of it, in particular as a result of the creation or strengthening of a dominant position.

The purpose of the Horizontal Merger Guidelines is to provide guidance as to how the Commission assesses horizontal mergers. When assessing the compatibility of a concentration the Commission takes into account the likelihood that possible efficiencies would act as a factor counteracting the harmful effects on competition which might otherwise result from the merger (Horizontal Merger Guidelines ¶ 11(e)).

In order to assess whether or not a concentration significantly impedes effective competition the Commission perform an overall competitive appraisal of the merger taking into account any substantiated efficiency claims. The Commission may decide, as a consequence of the efficiencies that the merger brings about, that the concentration is compatible with the common market. This will happen if the Commission is able to conclude that, the efficiencies generated by the merger are likely to enhance the ability and the incentive of the merged firms to act pro-competitively for the benefit of the consumers, thereby counteracting the adverse effects on competition that the merger might otherwise have.

Moreover, Aerospatiale- Alenia/Havillan[85]84, Nordic Satellite Distribution[86]85 and Accor/Wagon-Lits[87]86 all indicate that in order for the Commission to take into account efficiencies they have to be "merger specific" substantial and be passed on to consumers i.e. benefit to the consumers. These requirements have been

[85] Ibid. p. 34
[86] Ibid. p. 36
[87] Ibid. p. 35

passed on to the Guidelines and can be found as the three main requirements that the Commission will consider at in their merger assessment.
For the Commission to take account of efficiency claims, the efficiencies have to:

- Benefit consumers,
- Be merger specific and
- Be verifiable.

The Guidelines has, further, clarified these concepts in depth explaining the concepts of "benefit to consumers", "merger specificity", "verifiability" and "burden of proof" in detail.

4.1.2. Benefits to consumers

In paragraph 79, it is described that "efficiencies should be substantial and timely, and should, in principle, benefit consumers in those relevant markets where it is otherwise likely that competition concerns would occur". The Guidelines[88] allow not only cost savings, but also other efficiencies stemming from mergers' activity. They do not specify, however, to what extent they should benefit customers to be called "substantial". In the Aerospatiale/Alenia/De Havilland case, the Commission considered the claimed efficiencies (in a form of cost savings that amounted to 0,5 % of the post-merger turnover) not to be sufficient enough[89]. Whereas, in the Korsnäs/AssiDomän Cartonboard case, the Commission declared the savings, which were expected to amount up to 5% of the net sales of the merging parties, as substantial[90].

When the Commission evaluates efficiencies in a merger assessment the resolution of the outcome will depend on the relative weight given to the welfare of different participants on the market[91]. This is referred to as "welfare standard". There are two main forms of welfare standards guiding competition authorities in their merger policy: *consumer welfare standard* and *total welfare standard*. The former primarily focusing on the welfare of consumers and the later primarily focusing on allocating the resources to those who evaluate them the most and thus treating producers (shareholders) and consumers neutrally[92]. The choice of welfare standard will affect different aspects of the merger assessment influencing what types of efficiency gains that the Commission is likely to take into consideration and to what extent they must be passed on to consumers. The EC merger control tends to go along with the "consumer welfare standard". This was confirmed by Monti who stated that consumer welfare is "the goal of competition policy"[93].

[88] Horizontal Mergers Guidelines, op. cit., para. 80
[89] Ibid. p. 34
[90] Davies J., Schlossberg R., Efficiencies – a changing horizon in horizontal merger control, Freshfields Bruckhaus Deringer, 2007, p. 6;
[91] Miguel de la Mano, Enterprise Directorate-General European Commission. Op. cit., p.18.
[92] Kiljanski, K;"Pass-on in Merger Efficiency Defence" World Competition 26(4) 2003, p. 653.
[93] Monti,M, the Future of Competition Policy in The European Union, Speech at the Merchant Taylor's Hall. 9 July 2001

Many of the cases under the Old Merger Regulation, where the Commission examined the efficiency claims brought about by the merging parties, were dismissed because the efficiencies never were passed on to consumers. This was the case in for example the Saint-*Gobain/Wacker-Chemie/NOM*[94] case and *Accor/Wagon Lits* case[95].

In merger assessment the Commission evaluates whether, overall, the efficiencies will give the consumers more gains compared to the anti-competitive effects created by the merger. According to the Horizontal Merger Guidelines the relative benchmark for assessing efficiencies is that the consumers will not be worse off as a result of the merger (HMG ¶79).

Mergers may bring forward various types of efficiency gains leading to lower prices or other benefits for the consumers. The Guidelines lists efficiency gains that may lead to such benefits:

- Efficiency gains that generate cost savings in production or distribution, as they may give the merged firms the ability and incentive to charge lower prices (HMG ¶ 80),
- Efficiency gains in the sphere of R&D and innovation as they may result in new or improved products or services (HMG ¶ 81),
- Efficiency gains increasing the merge firms' incentive to increase production and reduce prices and thereby reducing the entity's' incentive to coordinate its market behavior with other firms in the market. Thus the efficiencies may lead to a lower risk of coordinated effects in the relevant market (HMG ¶ 82).

When making an assessment of the different efficiencies that the merger might bring it is important to differentiate between marginal cost savings and fixed cost savings as marginal or variable costs are more likely to be relevant in the assessment of efficiencies than in fixed costs. This is because the reductions of marginal or variable costs are, in general, more likely to result in lower prices than reductions in fixed costs[96].

The Horizontal Guidelines make clear that mergers with a high degree of possible negative effects on competition will be required to demonstrate especially strong efficiencies. It is unlikely that a merger resulting in a level of market power approaching monopoly could be declared compatible with the common market on the grounds that efficiencies would be sufficient to counteract the anti- competitive effects. It is highly unlikely that a merger leading to a market position approaching that of a monopoly will be declared compatible with the common market of the Commission on grounds that there are efficiencies counteracting its potential anti- competitive effects (HMG ¶ 84).

[94] Saint-Gobain/Wacker-Chemie/NOM, (Case IV/M. 774), 4 December 1996, paras. 244- 246.
[95] Ibid. p. 35
[96] De la Mano, M; Enterprise Directorate-General European Commission. p. 53

4.1.3. Merger specificity

In order for the Commission to take into account an efficiency claim the efficiencies must be merger-specific. This means that they are a direct consequence of the notified merger and cannot be achieved to a similar extent by less anti- competitive alternatives. For example, in the Korsnäs/AssiDomän Cartonboard case, the Commission stated that in order to be taken into account the efficiencies should be taken into account as a counteracting factor[97].

The guidelines provide some examples of alternatives, which may be used in this case:

- Practices of non-concentrative nature – a licensing agreement, an cooperative joint venture;
- Practices of a concentrative nature – a concentrative joint venture, a differently structured merger.

A common practice among merging companies is claiming such efficiencies as avoidance of duplication in R&D works or access new technologies. In fact, the same objectives could be attained through joint ventures and cooperative agreements[98].

4.1.4. Verifiability

Finally, in order for the Commission to take into account efficiency claims they must be verifiable (HMG ¶ 86). This means that the Commission should be able to be reasonably certain that the efficiencies are likely:

- To materialize and
- Substantial enough to counteract a merger's potential harm to consumers.

It will be easier for the Commission to evaluate the efficiency claims if they are convincing and precise. Where reasonable possible, the efficiencies and the resulting benefits to consumers, should be quantifiable. When there is not enough data available for this purpose, it must be possible to foresee that the efficiencies will have a clearly identifiable positive impact on the consumers, not a marginal one. Evidence relevant to the assessment of the efficiency claim includes internal documents that were used by the management to decide on the merger, statements about expected efficiencies, historical examples of efficiencies or consumer benefits and pre-merger expert studies on the type and size of efficiencies and to what extent consumers are likely to benefit. In several cases (i.e. Korsnäs/AssiDomän Cartonboard, Aster 2/Flint Ink[99]) the Commission

---

[97] Korsnäs/AssiDomän Cartonboard case, op. cit., para. 61;

[98] Shyam Khemani R., Efficiency Arguments in Merger Cases: Some Issues that Transacting Parties Should Consider, [in:] EC merger control: a major reform in progress. Papers from the EC Merger Control Conference held in Brussels in November 2002 under the auspices of the European Commission, Directorate General for Competition and the International Bar Association, London 2003, p. 199;

[99] COMP/M.3886, Aster 2/Flint Ink, 25 August 2005.

accepted efficiencies in R&D, which means that the evidence provided by the parties was complete and sufficient.

4.1.5. Burden of proof

The Commission decided that the burden of proving the probable efficiencies will be put on the merging companies. All the necessary information which are possessed by the management should be provided in due time to prove that the claimed efficiencies are merger-specific, likely to be realized and that the efficiencies will benefit consumers. Since there exists an asymmetry between the competition authorities and the merging firms regarding the information of the merger and the expected efficiencies, it is up to the merging firms to provide the relative information. According to practitioners, the way of providing information to the Commission is very important and should not be underestimated by the merging parties[100]. It is recommended that the parties put forward all the relevant documents that they want that the Commission to consider in their merger assessment at an early stage[101].

The parties must put forward enough evidence to make the Commission reasonable certain that the efficiencies are likely to materialize and be substantial enough to counteract a merger's potential harm to consumers. This can be considered demanding as to the scope of evidence but it is not unreasonable considering the conclusions of empirical studies showing that mergers do not necessarily generate as many efficiencies as expected.

4.1.6. Other issues concerning efficiencies

Pass-on to customers

Pro-competitive effects of mergers fall within interests of the Commission not only when considering their existence, but also when the competition authorities has to distinguish to what degree the efficiencies has to be passed on to customers. In the guidelines, it is stated that "the greater the possible negative effects on competition, the more the Commission has to be sure that the claimed efficiencies are substantial, likely to be realized, and to be passed on to a sufficient degree to the customers"(HMG ¶ 84). Then, a question may arise, to what extent efficiencies should be considered sufficient enough to countervail negative effects? Some guidance on this matter may be drawn from the Commission's conclusion that the merger approaching to a monopoly would hardly ever generate cost savings high enough. It appears that this approach is not very popular among economists and other stakeholders. They criticize the Commission that such a presumption, and the intuition on which it is based, conflict directly with a well-developed conclusion of economic theory: the demand conditions that create the greatest incentives to increase non-price efficiencies also create the greatest incentive to decrease price as a result of

[100] Shyam Khemani, op. cit., p. 201;
[101] DG Competition, Best Practices on the Conduct on the Conduct of EC Merger Control Proceedings, section 18

efficiencies[102]. Another issue related to pass-on to customers is a problem of a role for market share in explaining firm-specific pass-on. According to Röller and Stennek[103], pass-on is very limited when the market share of the firm is either very small or very large. In case of a merger with intermediate shares of 40% to 50%, it is very likely that it would lead to the greatest pass-on. For instance, in the Korsnäs/AssiDomän Cartonboard case[104], the parties delivered to the Commission a term sheet agreement with a customer for the post-merger period, which seems to convince the Commission that the efficiencies would be passed on to customers to a satisfactory level.

4.1.7. Pre – 2004 case law

In the assessment of whether or not a merger is compatible with the common market the Commission generally follows a classical four step analysis consistent of; a) the market position of the merged firms i.e. the market shares and other advantages over competitors, b) the supply's structure i.e. the strength of remaining competitors post- merger c) the demand's structure i.e. the buying power of costumers and d) the potential post merger competition.

Under the Old Merger Regulation, the evaluation of efficiencies was not part of the merger assessment procedure. On the contrary, the current view of efficiencies represents the outcome of the development of case law where the Commission has taken efficiencies into account in their merger assessment[42]. These cases are a few examples of were the Commission has evaluated efficiencies under the Old Merger Regulation.

Efficiency offence cases:

Article 2.1 (b) of the Merger Regulation states that the technical and economic progress should be taken into account provided that it does not form an obstacle to effective competition. The Commission in a numbr of cases has taken this to ean that if efficiencies generated by merges cause competition concerns, for instance in a form of blocking new entry or getting rid of competitors from the market, they should be treated as an offence.

Such a view the Commission provided in MSG Media case[105], where it agreed that the efficiencies claimed by the parties could have contributed to technical and economic progress, but such efficiencies might also cause serious competition concerns in a form of eliminating competitors from the market, and therefore should be announced incompatible with a common market. This ruling only proves the possibility of efficiency offence, as efficiencies may also have anti-competitive effects on competition in a given market. In respect to this situation,

---

[102] Yde p., Vita M., Merger Efficiencies: The 'passing-on' fallacy, [in]: Antitrust 59, summer 2006;
[103] Röller L-H., Stennek J., Merger control and enterprise competitiveness: Empirical analysis and policy recommendations, [in:] European merger control, Do we need an efficiency defense?, edited by Ilzkovitz F., Meiklejohn R., 2006, p. 262
[104] Ibid. p. 50
[105] 94/922/EC, MSG Media Service, [1994] OJ L 364/1

a question arises what if similar case happened under the reformed Merger Regulation 139/2004. If merging companies did not claim the efficiencies it would be possible that the Commission omitted anti-competitive effects of the efficiencies and the merger could be claimed compatible with a common market before the merger's effects on costs were analyzed. The most recent case law examples show that the Commission did not follow an efficiency offence approach. In cases where efficiencies in a form of extended product portfolio were claimed, they were not declared as causing competition concerns, but all of them were announced pro-competitive.

AT&T/NCR

The Commission met for the first time with efficiency concerns in the *AT&T/NCR* case[106]. Both companies were American, but they had some business performed in the European Union. The case concerned an acquisition of the NCR Corporation (NCR) by American Telephone & Telegraph Company's (AT&T).

The Commission did not exclude the possibility that potential benefits stemming from the concentration may have created or strengthened a dominant position and in its final decision found out that the acquisition did not raise serious doubts as to its compatibility with the common market.

However, the Commission's viewpoint in this matter, seemed to be certain towards the so called "efficiency offense". The Commission did not find the benefits large enough to strengthen the position of the merger and did not prohibit the merger on basis of efficiencies. However, the interpretation shows that if the Commission found the efficiencies significant enough, it would take them into account as another indication against the merger.

The debate around the efficiencies was at least according to Damien Gerald54 based on the misunderstanding of the merger regulation and ambiguous statements from the Commission and the General Court. This can be seen as a plausible explanation not only because Monti55 has denied the existence of an efficiency offence, but also considering the development of the law and the treatment of efficiencies under the Horizontal Merger Guidelines.

Efficiency defence cases:

An efficiency defence means; the possibility to justify a merger that significantly impedes effective competition, by the demonstration of efficiencies likely to offset the anti-competitive effects created by the merger. In the analysis of efficiencies as a factor in the overall assessment of the operation, efficiencies are taken into account so that no impediment of effective competition may occur in the first place.

An example of a jurisdiction where they have an efficiency defence is Canada.

[106] AT&T/NCR (Case IV/M.05) 18 January, 1991, [1991] O.J. C16/127

Section 96 (1) of the Canadian Competition Act states that the Competition Tribunal shall not make an order if it finds that the merger is likely to bring about "gains in efficiency that will be greater than, and will offset, the effects of any prevention or lessening of competition that will result or is likely to result from the merger or proposed merger and that the gains in efficiency would not likely be attained if the order were made"[107].

Efficiency defence in Canada has long been debated and especially after the decision of the Canadian Competition Tribunal to clear the merger between Superior Propane Inc and ICG Inc (The Superior Propane Case[108]) as the efficiency defence in section 96 of the Competition Act had been properly met. The Superior Propane Case was the first case in Canada that actually turned upon the efficiency defence and although the Canadian Competitive Commissioner appealed the decision the merger could prevail[109].

Since mergers often generate efficiencies and market power simultaneously, difficulties may be created in the assessment process in situation where a merger impedes effective competition but at the same time generate efficiencies that may counterbalance the anti- competitive effects created by the transaction. The European Commission has come across efficiency defence in several cases.

Aerospatiale/Alenia/De Havilland

The landmark case for efficiencies under the Old Merger Regulation is the Aerospatiale- Alenia /Havilland case[110]. French Aerospatiale and Italian Alenia, two companies active in aerospace business, jointly acquired Canadian De Havilland company which specialized in production of turbo propeller planes. The acquisition was made through a company which was jointly controlled by the former firms where these two already formed a concentration.

The companies in question claimed that through acquisition of De Havilland, they would reduce costs which would stem from rationalizing parts of procurement, marketing and product support. However, the Commission considered those cost savings not significant enough to outweigh the anti-competitive effect of the concentration. Moreover, the "doubtful" efficiencies were said not to arise from the concentration itself, but could be achieved by any other De Havilland owner. The Commission also did not consider the merger to "contribute to the development of technical and economic progress" within the meaning of Article 2.1 (b), and even if there was such a development, it would not be "to the consumers' advantage". In spite of the benefits, consumers would cope with a dominant position of the concentration which might cause a risk of transferring into a monopoly.

---

107 Competition Act, R.S.C.1985, c. C-34, Can be found on http://www.competitionbureau.gc.ca/internet/index.cfm?itemID=1314&lg=e#mergers

108 The Commissioner of competition v. Superior Propane Inc (2000) Comp. Trib. File no. CT1998002 (Competition tribunal)

109 Piaskoski &Finkelstein op.cit. p.259

110 Aérospatiale-Alenialde/ de Havilland (Case IV/M.053) 2 October 1991, para 65-72

The case shows that the Commission did not rule out the possibility of efficiency claims in the merger assessments although, in this particular case, the proposed efficiencies only demonstrated a negligible impact. Concluding, although the Commission did not consider efficiency claims as lessening the anti-competitive effect of the merger, it presented it's first indications of how the future efficiency concerns should be examined. In its conclusions, the Commission clearly stated that efficiencies should be significant and merger specific and they ought to be to the consumers' advantage.

Accor/Wagon-Lits

Moreover, the requirement that the efficiencies have to be passed on to consumers was confirmed by the *Accor/Wagon-Lits*[111] case. The case concerned the proposed acquisition by Accor SA (Accor) of all the shares still in circulation of the Compagnie Internationale des Wagons-lits et du Tourisme (CIWLT). Accor was a French catering and hotel group and CIWLT was a Belgian catering, hotel and tourism group.

The Commission was concerned that the transaction would result in a dominant position in the motorway-catering sector. The claimed efficiencies, in a form of increased productivity, were said to be vague and insubstantial, and thus had not been a subject for evaluation. Further, the Commission expressed serious doubts on if the efficiencies were merger specific and if they would be passed on to customers.

Airfrance/Sabena

The Air France/Sabena[112] case is one of the first Commission cases where rather thorough assessment of efficiencies was held. The merging parties claimed the efficiencies in a form of providing new service shuttle would benefit customers.

The new routes, however, were declared by the Commission as incompatible with the Common Market as they led to creation of dominant position in certain markets (routes: Paris-Brussels, Nice-Brussels and Lyon-Brussels). Only the Paris-Brussels route was cleared thanks to the existence of a high-speed train connection, which was said to be complementary (not perfectly though) to the air route service offered by the merging parties. Nevertheless, the Commission did not declare the benefit to customer as an effect justifying the creation of a dominant position.

Airtours/First Choice

After the Commission had found the concentration *Airtours/First*

[111] Accor/Wagon-Lits (Case IV/M126) 28 April 1992 Para.26. 2(f)
[112] Air France/ Sabena Case No IV/M157 [1992] OJ C 272

Choice[113]detrimental to effective competition the case was appealed to the General Court. In its judgment the General Court seriously doubted the relevance of the proposed efficiencies, in the form of economies of scale and scope, produced by the vertical integration of tour operators. It was uncertain that the proposed efficiencies were relevant to the question of the ability of small operators to respond effectively to the anti-competitive effects that the concentration would bring as a result of collective dominance.

Mercedes/Benz/Kässbohrer

The Mercedes/Benz/Kässbohrer[114] case, which concerned the acquisition of Kässbohrer by Mercedes-Benz, is an example where efficiencies were recognized as a positive factor in the concentration assessment.

In this case the Commission recognized that the transaction would allow the firms to achieve certain synergy effects relating to production, research, development and administration but the importance of the synergy effects46 achieved by the merger would only been limited. However, it remained unclear what influence the efficiencies would have had on the Commission's decision regarding the acquisition, if they had been considered significant.

Nordic Satellite Distribution

It was furthermore confirmed in the case of *Nordic Satellite Distribution*[115] that efficiencies have to be "merger-specific" in order for the Commission to take them into account in the merger assessment. In Nordic Satellite Distribution case, the Commission regarded a joint venture established by three Scandinavian companies (TeleDanmark, Telenor and Kinnevik) as incompatible with the common market. The Nordic Satellite Distribution (NSD) was formed to provide the satellite transmission services via cable networks or direct-to-home broadcasts for TV programs in three Nordic countries: Denmark, Sweden, Norway and Finland.

The parties decided to refer to the clause of technical and economic progress under Article 2.1 (b) and claimed that the NSD would create in short to medium term improvements of distribution of satellite TV in Nordic market. The Commission recognized that the joint venture would involve significant efficiencies but it was also concerned that the joint venture would result in the parties achieving a strengthening of a dominant position in the market. It also stated that short term efficiencies were unlikely to be achieved.

[113] Airtours v. Commission (Case T-342/99) 6 June 2000 paras. 211-216, also see Gerald p.1405
[114] Mercedes/Benz/Kässbohrer, (Cases IV/M.477) 14 February, 1995, Para. 65-66
[115] Nordic Satellite Distribution (Case IV/M. 490) 19 July 1995

ABB/Daimler-Benz

The ABB and Daimler-Benz[116] decided to merge in the field of rail transportation which would lead to the creation of the world largest company on the market. The Commission's conclusion on the transaction was the following. "[…] the transaction will not worsen the situation; structurally speaking it will tend to improve it. It can be assumed that the cooperative arrangements entered into in the past were the result of the lack of capacity of competitors, or at least German competitors other than Siemens, to make an independent tender for the manufacture of mainline train sets. It may be that significant competition internal to the duopoly will arise after the transaction because cooperation between Siemens and AEG on the ICE project will come to a stop, but that cannot yet be said with sufficient certainty. The fact that Siemens and GEC Alsthom have announced that they will be cooperating on the marketing of the ICE and TGV high-speed trains outside Europe may be an indication that there will indeed be more competition inside the duopoly on this market".

According to Camesasca[117] this case clearly shows that efficiencies had become more in the centre in the merger assessment and that the purported efficiencies in the case played some part in the final outcome61.

4.1.8. Post – 2004 case law

In all post 2004 cases, the benchmark point is consumers not to be worse off as a result of the merger. In Horizontal merger guidelines efficiencies have to be substantial, timely and likely to benefit consumers (pass-on requirement), they have to be merger specific as well as verifiable. All types of efficiencies (static and dynamic, cost reductions, savings in production or distribution, economies of scale and scope, general corporate efficiencies, improved products or services, R&D, innovation) have to be greater when the anti-competitive effects are more. There must be a reasonable certainty that efficiencies are likely to materialize and the parties should bear in mind that the longer term, the less likely are to materialize. Parties in all cases should present evidence (internal documents, investor presentations, historical examples, pre-merger external expert reports, account statements, economic analysis and submissions) as soon as possible. In non-horizontal merger guidelines is more likely and substantial scope for efficiencies(complementary products, internalization of double mark-ups, decrease in transaction costs, better coordination of production, "Cournot effect", economies of scope and distribution process in conglomerate mergers). Efficiencies and effects on competition are more intermingled in NHM and the need for an overall assessment is greater than a two step approach[118].

---

[116] ABB/Daimler-Benz Case No IV/M580, Commission Decision 97/25/EC [1997] OJ L 11/1, para. 112–115

[117] Camesasca op.cit.,p. 26 Other cases where the Commission, according to Camesasca, considers efficiency gains under the Merger Regulation 4064/89 is Alcatel/Telettr48 (Case IV/M. 042) 4 April, 191, Mannesmann/Valourec/Ilva (Case IV/M . 315) 31 January , 1994.

[118] http://www.imedipa.com/files/downloads/Fountoukakos-IMEDIPA_Conference_-_Athens_May_2009_-_K_Fountoukakos_-_FINAL.pdf

Aster 2/Flint Ink

In the Aster 2/Flint Ink case[119], the merging parties brought about reasoning that the new entity was probable to extract cost and R&D synergies, which could result in stronger competition with other firms. The Commission concluded that the concentration will not significantly impede effective competition in the common market, but the efficiencies were not the main and deciding factor for the clearance.

Korsnäs/AssiDomän Cartonboard[120]

Although the Commission didn't recognize the efficiencies as the most important factor for mitigating anti-competitive effects of the merger, it provided the most detailed analysis of the efficiencies since the ECMR reform.

Particularly, the following issues raised are worth mentioning:

–the extended product portfolio would allow the merged entity to compete more effectively with the main competitor (StoraEnso[121]) than Korsnäs and AD Cartonboard separately,

– efficiencies in a form of savings in input cost, reductions in personnel costs and improvement in production efficiencies were likely to appear. Korsnäs estimated that these three categories of savings will amount to 0- 5% of the net sales of the merging parties (including products other than liquid packaging boards),

–the Commission also acknowledged that customers could benefit from R&D generated by the merger, as well as from implementing best practices across the two production sites,

– the Commission's market investigation revealed that according to respondents, the proposed transaction entails a certain scope for efficiencies, although they did not all agree that the benefits would be substantial and passed on to consumers. However, a large majority of converters and competitors agreed that the broader portfolio of the merged entity would improve the ability of the merged entity to better compete with other main competitor, StoraEnso,

– in other part of the analysis, the Commission repeats after the guidelines that in order to take into account efficiency claims in its assessment, it must be in a position to reach the conclusion that the efficiencies are merger specific, verifiable and benefit consumers,

– the Commission stated that "it appears realistic to assume that the allocation of production among the increased portfolio of machines will indeed allow the merged entity to increase overall production on the machines (for instance by

[119] Ibid., p. 51
[120] COMP/M.4057, Korsnäs/AssiDomän Cartonboard, 12 May 2006
[121] Case COMP/M.1225. Enso / Stora, para 59

running longer batches thereby reducing time spent on switching). In light of the abovementioned term sheet agreement with Tetra Pak and on the general absence of concern about the transaction among customers, the Commission considers that the parties have sufficiently established that this category of efficiencies is likely to occur and be passed on to consumers",
Concluding, the Commission confirmed the merging parties efficiency claim that the efficiencies were likely to enhance the ability and incentive of the merged entity to act pro-competitively for the benefit of consumers, and therefore strengthen the conclusion that the proposed transaction will not significantly impede effective competition as a result of non co-ordinated effects.

Inco/Falconbridge

In this case[122] the Commission declined the efficiencies claims of the merging parties. It was discovered that the efficiency gains brought about by the proposed transaction would most likely not benefit directly consumers and would thus not counteract the adverse effects on competition. The parties claimed that the efficiencies were likely to be achieved from the close proximity of their respective mines/processing facilities in the Sudbury basin, which would help them to optimize their mining and processing operations. This would allegedly result in increased production at lower cost and would benefit all nickel customers. However, the Commission accused the parties to have failed to demonstrate that the efficiencies brought about by the proposed transaction were not attainable with a less anti-competitive alternative (not merger specific) and would directly benefit end customers in the three relevant product markets where competition concerns had been identified. For these reasons, the Commission did not declare the presented efficiencies to be considered to offset the adverse effect of the proposed transaction on competition.

4.2. Efficiencies in non horizontal mergers

In general efficiencies can arise because enhanced coordination made possible by the non-horizontal merger allows for (i) production efficiencies and savings; (ii) internalization of vertical externalities and alignment of incentives; and (iii) transaction cost savings, including mitigating opportunistic behavior[123].
Production Efficiencies and Cost Savings

A number of different production efficiencies and cost savings can arise because of the enhanced coordination possible from a non-horizontal merger. In a vertical merger, one efficiency already considered is the elimination of inefficient input substitution, which results in lower costs. Riordan and Salop (1995)[124] point to other potential efficiencies from coordination in both design and

[122] COMP/M.4000, Inco/Falconbridge, 4 July 2006,
[123] Jeffrey Church, Church Economic Consultants Ltd. and Department of Economics University of Calgary, The Impact of Vertical and Conglomerate Mergers on Competition, September 2004
[124] Riordan, M. H., and S. C. Salop. 1995. "Evaluating Vertical Mergers: A post-Chicago Approach." Antitrust Law Journal 63: 513-568.

production made possible by a vertical merger, including lower costs, higher quality, shorter lead times, improved quality control, reduced costs of inventory, optimized production runs etc.

In the context of bundling of complements into systems, rather than allow consumers the choice of assembling compatible components, there are a number of reasons for why it might be more efficient for firms to assemble systems. Lower cost assembly by a firm can arise due to expertise, knowledge and skill advantages that the firm has relative to most consumers, as well as economies of scale. In many, if not most, instances firms have the requisite expertise to assemble the system, the knowledge of which components should be combined, and can do so at lower cost. Moreover, there may be economies of scale, scope and learning in production and distribution which make it efficient for a firm to produce a range of products or to bundle a number of products together. Indeed the fixed costs of introducing an unbundled option for consumers so that they can design their own product from the ground up may not be justified by the benefits.

Evans, Padilla, and Salinger (2003)[125] emphasize how the role of fixed costs associated with a product offering results in bundling/tying that limits the ability of consumers to assemble their own systems. The existence of such fixed costs means that even in competitive markets there will be restrictions on product offerings. The two examples they use to illustrate the argument are the inclusion of bread with most meals at a restaurant and the inability to custom design a newspaper, so that subscribers only receive and pay for the sections they want.

Vertical Externalities and Exclusivity

Externalities arise when the actions of one entity directly affect the welfare of another entity. The entities might be an upstream and downstream firm, two downstream firms that both retail the products of the same manufacturers, or two manufacturers. Advantages from enhanced coordination from exclusivity can arise from (i) alignment of incentives within the vertical structure; (ii) prevention of free-riding; and (iii) quality certification, creation, and maintenance.

The potential for incentive effects to arise is most clearly seen in the case of a merger between a retailer and a manufacturer, leading to customer foreclosure. Incentive effects arise when retailers can invest in product quality and sales effort. The incentives by the retailer to invest in sales effort and incentives will not be "fragmented" across the products of different manufacturers when there is customer foreclosure. Furthermore, integration means that manufacturers can share information regarding market conditions and their promotional plans/activities with their retailer and be less concerned that it will be leaked intentionally, or inadvertently, to a competing manufacturer. Exclusivity also eliminates any incentive the retailer might have to lower its costs and increase

[125] Evans, D., A. J. Padilla, and M. Salinger. 2004. "A Pragmatic Approach to Identifying and Analyzing Legitimate Tying Cases." In European Competition Law Annual 2003: What is an Abuse of Dominant Position? Oxford: Hart Publishing.

its profits by substituting lower quality products. This will be more difficult if the retailer is not able to carry lower quality brands from rival manufacturers.
Similarly, a vertical merger more closely aligns the welfare of a downstream firm with that of the upstream firm. Investments by either that increase demand or quality will not take into account the benefit that the other derives when they are separate, but will be internalized post-merger. In the context of systems of complements, integration might solve the chicken and egg problem: successful introduction of a system requires the availability of all components.

In the absence of an exclusive dealing arrangement or merger between a manufacturer and its retailer, the incentive for the manufacturer to invest in the retailer and its product are reduced because of potential free-riding (benefiting from an activity without bearing any of the costs) by other manufacturers. Instances of free-riding that can be eliminated through exclusivity through merger include:

(a) free-riding by rivals on demand created through investments in product quality and promotion. In this case the investments by the manufacturer create demand for the product category, which its rivals attempt to capitalize on by providing financial inducements (such as higher margins) to retailers to switch customers.
(b) free-riding by rivals on product innovation and design. This case is possible when design and innovation are not completely protected by intellectual property rights. If rivals can easily copy and sell imitations, there will again be an incentive for them to induce retailers to switch customers to their (lower) priced imitations.
(c) free-riding by rivals on investments in retailers. A manufacturer will have less of an incentive to make investments in its retailer network if the benefits to those investments are not specific to it. For instance, investments by the manufacturer in the sales force of the retailer (through technical education and training) or store fixtures likely benefit its rivals.

The last vertical externality highlighted in the literature is quality assurance. Joint provision of the components that make up a system avoids disputes and disagreements over which component is to blame when the system does not function, at all, or below its capabilities. Joint provision insures that firms are able to develop and maintain reputations for quality. Moreover, joint provision may be a mechanism that allows a firm to signal that its system is high quality. It can offer one component (typically the one that is more durable) at a low price to signal high quality, since the only way it will be able to recoup its initial losses on the durable component is through its sales and margins on other components, sales, which will only be realized if quality is high.

Transaction Costs and the Holdup Problem

A non-horizontal merger can reduce transaction costs and promote investment in specific assets by mitigating more effectively the hold-up problem. An asset is specific to a trading relationship (i.e. between a given buyer and a given seller) if it has no value either to alternative buyers or sellers. More generally, there is some degree of asset specificity if the asset is less valuable when redeployed to another use (i.e. an alternative trading partner). The degree of asset specificity is related to the extent to which the cost of the asset is sunk, i.e. non-recoverable if the trading relationship is terminated.

The incentive difficulty associated with investments in relationship-specific assets is known as the hold-up problem. The hold-up problem involves opportunistic behavior by a buyer (lower price) or seller (higher price) who attempt to renegotiate the terms of trade after investment in the asset. For instance a buyer may have agreed to pay average total cost pre-investment, but post-investment, the seller will also be just willing to supply even if it receives only its average variable costs if its capital costs are sunk. Anticipating that the buyer may take advantage of the change in the seller's incentives post investment, the seller will be reluctant to make the required investment. If the transaction costs associated with eliminating the risk of hold up through private contracts are too large, then one alternative is merger.

Inefficiency of Non-Horizontal Mergers

It should also be recognized that a non-horizontal merger involves an increase in the scope/breadth of a firm. Increases in the scope of a firm's activities can often lead to changes in the nature of remuneration and incentives that result in a loss in cost efficiency.

4.2.1. Non-Horizontal Mergers Guidelines

Section II of the Guidelines[126] emphasizes that, in analyzing non-horizontal mergers, the Commission will consider both possible anticompetitive effects and any pro-competitive benefits that may result from efficiencies (para. 21). The Guidelines recognize that vertical mergers allow the merged entity to internalize double markups. They also list several other potential efficiencies, such as decreased transaction costs; better coordination of product design, production and distribution; and providing customers one-stop shopping opportunities (paras. 13, 55). The Guidelines cross-reference Section VII of the Horizontal Merger Guidelines (e.g., para. 53), which provide additional examples of efficiencies (such as efficiency gains in R&D and innovation).

Overall, the Guidelines' treatment of efficiencies is relatively terse, and the Commission has been criticized during public consultation for its cautious approach and lack of detail in this area. Moreover, an earlier draft of the Guidelines provided that the parties must "identify and substantiate" efficiencies, thus putting the burden of proof on the merging parties. The final version requires the parties to "substantiate," but no longer to "identify," efficiencies (see paras. 58, 77).

A note published by the Economic Advisory Group for Competition Policy (EAGCP) on August 2006 states ten principles concerning the non-horizontal

126 http://ec.europa.eu/comm/competition/mergers/legislation/nonhorizontalguidelines.pdf

merger guidelines[127]. The purpose of this note- is to propose a set of robust economic principles that, that are believed to be, important for reviewing NHM and framing eventual guidelines.

The first five principles highlight key economic differences between horizontal mergers and NHM and the second five relate to what the guidelines should achieve. Four of the guidelines are clearly referring to efficiencies.

It is stated that there are stronger efficiency arguments for non-horizontal mergers than for horizontal mergers. The modern theory of the firm, supported by an increasing body of empirical evidence, informs us that firms as an institution exist due to incomplete contracts and transaction costs, which make it more efficient to carry out certain activities coordinated within a firm as opposed to through markets. If complete contracts could be written (in the sense that they would specify a precise outcome for each possible future contingency) and the associated transaction costs were low, then the need to organize economic activities within firms would be limited. However, such contracts are typically too expensive. The dynamics of the economy mean that the efficient range of activities carried out within a firm may change over time, and mergers can be an appropriate way of achieving an efficiency-enhancing change.

What is more, it is stated that guidelines should have a clear focus on competitive effects resulting in consumer benefit or harm and not on harm to competitors. Non-horizontal mergers can create efficiencies, which could lead to competitors losing market share as the merging parties reduce price or provide a more attractive product offering to consumers. This is to be welcomed as consumer benefit. The same applies to the elimination of double marginalization. However, there is not always a double margin to be eliminated, even in the presence of imperfect competition, because legally separate parties have an incentive to contract around this source of inefficiency. Thus, pre-merger contracts are very relevant and important in this context. It is particularly important to recognize the benefits of anticipated customer price reductions because competitors anticipating lost market share have a strong incentive to complain loudly to the Commission. An expectation of consumer harm needs very careful support, unless the exit of an efficient competitor is expected.

Guidelines should indicate the methodology of analysis and how evidence can be used to indicate the harm resulting from a non-horizontal merger. The model used to analyze a vertical merger must allow for potential efficiencies from the start and not for competitive harm only. In other words, the assessment of the effects of a vertical merger must not presume consumer harm and then look for countervailing efficiencies.

In NHM there is no generally agreed set of 'canonical models' of competitive harm to provide guidance; whereas there is for horizontal mergers (e.g., Bertrand for pricing with differentiated products or Cournot for capacity constrained homogeneous products, and repeated games for coordinated

[127] EAGCP, "Non-Horizontal Mergers Guidelines: Ten Principles," August 2006.

effects). However, there are canonical models of 'no harm' for NHM, which are collectively known as those of the Chicago School. Importantly, these state the conditions under which there is no loss of competition due to a non-horizontal merger. In particular, this approach suggests that monopoly profits "can be taken only once" along a vertically linked chain (where, e.g., one of the stages is nearly perfectly competitive), that vertical integration can reduce distortions by eliminating "double marginalization" and that there may be significant production and organization efficiencies as a result of integration. This reasoning (i.e., one source of profit only, and the double marginalization) similarly applies to mergers between complements. The Chicago view turns out to rely on some particular assumptions, but the implication is that the appropriate theory of competitive harm must be particularly carefully "tuned" to the merger in question, specifying the mechanisms through which such harm would be likely to occur. Consequently, guidance should highlight important mechanisms and the way they may combine.

Non – horizontal mergers post 2004:

Repsol Butano/Shell Gas (LPG)

The acquisition of Shell Gas, and in particular of its LPG infrastructure, was said to give to Repsol the ability to compete more effectively in the Portuguese markets and challenge the Galp's and BP's position. Having access to Shell's LPG infrastructures, Repsol would significantly reduce its transport costs and gain the needed flexibility to more effectively operate and compete in the Portuguese markets. It would have a strong incentive in fully profiting of the synergies and economies of scale which it might realize operating on a wider scale in the two sides of the border. In the Repsol Butano/Shell Gas (LPG) case[128], the Commission acknowledged the efficiencies claimed by the parties, but again, it was one of the factors to declare the concentration compatible with the common market.

Procter & Gamble/Gillette

In the Procter & Gamble/Gillette[129] case, the parties claimed the efficiencies stemming from the merger in a form of enlargement of the product portfolio. These efficiencies were said to benefit customers, e.g. by having only one partner to negotiate with (one-stop-shop), suppliers having stronger innovation capacities, and economies of scale and scope (e.g. offering a full truckload of the same product or even a full truckload of products from the same factory). As a conclusion, the transaction was assumed to be unlikely to lead to foreclosure of competitors as a result of bundling non-complementary products.

Eventually, the Commission decided not to oppose the merger and declared it compatible with the law. However, the efficiencies were not the main and

[128] COMP/M.3664, Repsol Butano/Shell Gas (LPG), 2 March 2005
[129] COMP/M.3732, Procter & Gamble/Gillette, 15 July 2005

deciding factor for total clearance of the operation, but one of the several others.

5. Conclusions

The efficiencies stemming from mergers falling under the EC Merger Regulation No 139/2004 should cumulatively fulfill the conditions: provide benefits to customers, be merger specific and be verifiable. As the analysis revealed, only certain types of efficiencies are most probable to be substantial enough to be taken into account by the Commission. The efficiency gains allowed by EU authorities stem from such processes, as rationalization, economies of scale and scope, and other productive efficiencies, because they lead to lowering the prices. Also, dynamic efficiencies are taken into account, even though they cause some serious problems with verifiability. As far as the substantiality of the efficiencies is concerned, in a case of an intensive concentration (up to a monopoly) it is very unlikely that the efficiencies would be large enough to be counted as a proof allowing for the concentration.

Reductions in variable or marginal costs are more likely to provide lower prices for customers and, therefore, they are more valuable source of efficiencies in the Commission's mergers' appraisal. Generally, fixed costs savings are said not to be so closely related to the prices of goods and services, especially in the short term, and therefore, the Commission would not put so much weight on them. The Commission takes into account only efficiencies existing in the relevant markets. For example, if a merger creates benefits for consumers in one market, they should be weighed against anti-competitive effects in the market where competition is harmed.

It the case of timeliness, the Commission undertakes the sliding-scale approach, i.e. the later the efficiencies will be realized and passed on to customers, the less importance they will have during the merger control procedure. It is most probable that the Commission has chosen a customer welfare standard when assessing who should be a beneficiary of the benefits stemming from mergers. The wording of the ECMR in article 2.1 (b), recital 29 and the guidelines imposes that benefits should be to customers' advantage and should be passed on to customers. It is very unlikely that the Commission chosen the price standard, as the non-price efficiencies ("new or improved products or services, for instance resulting from efficiency gains in a sphere of R&D and innovation") should also be allowed. Any other described standards allow some amount of anti-competitive effects to be taken by customers.

In terms of merger specificity of the efficiencies, the primary legislation as well as the case law shaped certain information on conditions required for efficiencies, i.e. they should emerge as a direct consequence of the merger in question and there should not exist any less restrictive way of achieving these benefits. As stated before, when it comes to verifiability of merger efficiencies, the preferred types of efficiencies are quantitative ones, as they can be easier evaluated. As far as qualitative gains are considered, they must clearly identify positive influence on customers. Having that in mind, it would be very difficult to prove that dynamic efficiencies would be substantial enough to outweigh possible anti-competitive effects.

Last but not least, efficiency gains are more obvious in vertical and conglomerate mergers. Vertical and conglomerate mergers except for internalizing any pre-existing mark up problem, they may also give rise to efficiency gains in many other ways. For example, efficiencies may arise as a result of suppliers of complementary products/services under common ownership achieving cooperative improvements in quality, a reduction in transaction costs (e.g. by making it easier for customers to acquire a desired bundle of products/services), cost savings from joint promotional activity, efficiencies from better coordination in production and distribution, economies of scope, alignment of incentives to invest in new products and production processes, and so on. Such efficiencies arise for precisely the same reason as those established in the theory of double marginalization (i.e. an integrated company supplying complementary products benefits by "internalizing" any "spill-over" effects, which would not be considered by two independent suppliers of complementary products).However, the Commission is being relatively cautious in its approach to assessing non-horizontal mergers even though the Guidelines acknowledge that *"vertical and conglomerate mergers provide substantial scope for efficiencies"* and they are less likely to lead to competition concerns than horizontal mergers (see para. 11 of the Guidelines).

The introduction of efficiencies to the EC merger control has improved the situations considerably. The Guidelines give a relatively clear description about requirements needed to be met in order for the Commission to take the proposed efficiencies into account and it helps to demonstrate how the Commission will assess efficiencies under the New Merger Regulation. However, certain clarifications still need to be done; for instance there are some ambiguous terms in the Regulation that must be identified and the relationship between market shares and efficiencies should to be explained.

The EC merger control regime after the reform in 2004 was provided with more detailed explanation of the role of efficiencies in the assessment of mergers falling under provisions of the EC Merger Regulation, but many aspects of the evaluation still remain vague and unclear. The most probable scenario is that up to certain concentration density, the sequential approach would be the correct one, i.e. general presumptions approach for high concentration density transactions and case-by-case approach for transactions under certain concentration threshold. However, in the recent cases, the Commission's evaluation treated efficiencies more as ones of arguments for (or against) the merger, but never as the deciding one. However, in opinion of the author, the Commission is provided with legal bases to raise the importance of efficiencies in the mergers' assessment and it is very likely that the future ruling will go towards increasing of their significance.

Annex to chapter four

How efficiencies are treated by different countries?[130]

- Austria

Efficiencies are taken into account insofar as sec 12 para 2 of the Austrian Cartel Act 2005 explicitly provides that the Cartel Court may approve a concentration notwithstanding of the creation or strengthening of a dominant position, if the concentration either leads to the improvement of competitive conditions outweighing the disadvantage of dominance, or if the concentration is essential for the international competitiveness of the undertakings concerned and is thus economically justified

- Belgium

They are taken into account, but there is no caselaw on this.

- Bulgaria

There are a number of cases where the Commission for Protection of Competition, based on prognostic analytical tools and sufficient evidence, authorises the notified concentration due to its favourable effects, even though it may result in the establishment or strengthening of a dominant position. The Commission Guidelines on Concentration include a number of examples where efficiencies played a significant role, such as:

- Improvement of effective competition and existing market structure (Decisions No. 293/2004, 309/2004);

- Restructuring, modernisation and liberalisation of a whole industry (Decisions 293/2004, 310/2004);

- Improvement of quality of the services rendered (Decision No. 335/2004);

  - Overall economic benefits as a result of new investments (Decisions 293/2004; 309/2004)

- Croatia

Realisation of efficiencies is one of the criteria that need to be taken into account in the merger assessment (Article 25 para 2(3) Competition Act 2003). This will not change when the new Competition Act comes into force on October 1, 2010 (Article 21 para 3(3)).

[130] Site: http://www.concurrences.com/?lang=en
English > Competition Law > Antitrust Encyclopedia > Mergers > Efficiencies > Are efficiencies taken into account in merger assessment? Have there been cases where efficiencies played an important role?

- Cyprus

Efficiencies are taken into account. There are at least two recent cases where efficiencies were considered and accepted.

Case law:

- *Cyprus Cement Public Co. Ltd and Vasiliko Cement Works Public Co. Ltd, 2007*

- *Christies Diaries Public Ltd and Vivartia S.A., 2007*

- Czech Republic

According to Article 17 para 1 of the Competition Act the Office for Protection of Economic Competition must take into account (i) the necessity of preserving and further developing effective competition, (ii) the structure of all markets affected by the concentration, (iii) the market shares of the parties to the concentration and their economic and financial power, (iv) legal and other barriers to entry into the relevant markets by other undertakings, (v) the alternatives available to suppliers and customers of the parties to the concentration, (vi) the development of supply and demand in the affected markets, (vii) the needs and interests of consumers, and (viii) research and development that is to the consumers' advantage and does not form an obstacle to effective competition. In fact, however, the efficiencies are taken into account only exceptionally in the most problematic cases. Recently they were considered at length in a concentration involving two largest cable operators UPC and Karneval. The decision with ref. No S.271/06 UPC/Karneval as well in a concentration concerning the leaders in Czech and Slovak pharmaceutical markets Zentiva and Slovakopharma (decision with ref. No. S.180/02 Zentina/S.L. Pharma).

- Denmark

Efficiencies are taken into account, but there are no cases where efficiencies played a decisive role.

- Estonia

Article 22(1) of Competition Act provides that appraisal of a concentration shall be based on the need to maintain and develop competition, taking into account the structure of goods markets and the actual and potential competition in the goods market, including: 1) the market position of the parties to the concentration and their economic and financial power and opportunities for competitors to access the goods market; 2) legal and other barriers to entry into the goods market; 3) supply and demand trends for the relevant goods; 4) the interests of the buyers, sellers and consumers. However, due to very limited practice in this respect, it is difficult to say whether the Estonian Competition Board (ECB) is taking efficiencies into account while assessing a concentration. To our knowledge, there have been no cases where efficiencies played and important role.

- Finland

The FCA may take efficiencies into account when assessing a concentration, provided that the efficiency gains are passed on to customers and can only be achieved through the concentration. Efficiencies include production efficiencies and dynamic efficiencies. Production efficiencies may consist of e.g., improved quality, greater product variety or improvements in distribution. Dynamic efficiencies may include e.g., development of new or improved products. There are no significant cases where efficiencies have played important role in assessing a concentration. However, in Sonera Oyj / Yleisradio Oy / Digita Oy (Dnro 1010/81/99, decision of the Competition Council (competition law court before the Market Court), Dnro 53/690/2000), Suomen Posti Oyj / certain business operations of Leijonajakelu Oy (Dnro 146/81/2003) and Valio Oy / certain business operations of Kainuun Osuusmeijeri, Osuuskunta Maito-Pirkka and Aito Maito Fin Oy (Dnro 1151/81/99) the efficiency defence has been employed unsuccessfully.

- France

Economic efficiencies can be taken into account as part of the assessment as to whether the concentration provides a sufficient contribution to economic progress such that the adverse effects on competition are neutralized. The Competition Authority shall take account of the competitiveness of the undertakings in question with regard to competition on an international scale. Therefore, efficiencies are seldom used. In its decision the Competition Authority may clear the operation provided that the parties adopt measures "likely to ensure sufficient competition or obliging them to observe requirements likely to ensure a sufficient contribution to economic progress to compensate for the adverse effects on competition [...]" (Article L. 430-7-III of the Commercial Code, translation by www.legifrance.gouv.fr). Efficiencies have been discussed in depth in two cases by the Conseil d'État (Coca Cola Company decision of 9 April 1999 and the Pernod Rocard case of 6 October 2000).

- Germany

When applying the dominance test, efficiencies as such are not considered. However, if the merger would lead to a dominant position, the prohibition may be averted if it can be shown that the concentration will also lead to improvements of the "conditions of competition" on other markets, and that these improvements outweigh anticompetitive concerns, § 36(1) Act against Restraints of Competition(ARC) (final clause). However, the improvements of the "conditions of competition" have to be of a structural character, and have to be the direct result of the merger itself; as to these countervailing improvements, it is the parties who bear the burden of proof.

- Greece

Efficiencies have been taken into account in merger assessment.

- *Case law:* Hellenic Competition Commission, Decision No 194B/III/2001, EFG/Telesis

- Hungary

When assessing an application for authorization of a concentration, both concomitant advantages and disadvantages are considered by the Competition Council. In the course of this consideration, the following aspects must be examined, in particular: a) the structure of the relevant markets, existing or potential competition on the relevant markets, procurement and marketing possibilities, the costs, risks and technical, economic and legal conditions of market entry and exit, the prospective effects of the concentration on competition on the relevant markets; b) the market position and strategy, economic and financial capacity, business conduct, internal and external competitiveness of the undertakings concerned and likely changes in them; c) the effect of the concentration on suppliers and on intermediate and final consumers.

- Ireland

Efficiencies are taken into account when presented. There has been no merger case where efficiencies played an important role.

- Italy

Italian legislation on concentration provided as the sole element to be evaluated in the merger test, the elimination or restriction of competition on the market as a consequence of the creation or strengthening of a dominant position. The legislator has not provided the ICA (the Italian Competition Authority) with the possibility to evaluate the existence of efficiencies which could compensate the increase of market power pursuant to the concentration.

- Latvia

Efficiency defence is sometimes taken into account, especially when the effect of the merger on competition in a relevant market is not clear.

  - *Case law:* LMT/ZetaCOM

- Lithuania

The Law on competition does not expressly entitle the NCA to consider efficiencies in merger assessment, but they are accepted by the recently amended Guidelines on Dominant Position. However, The Guidelines come short of recognizing the efficiency defence and seem to regard the efficiencies as a factor to be taken into consideration when evaluating the effects of a particular merger on a relevant market.

- Luxembourg

There is no Luxembourg legislation on control of concentrations of undertakings.

- Malta

Regulation 4(5) provides that: "Concentrations that bring about or are likely to bring about gains in efficiency that will be greater than and will offset the effects of any prevention or lessening of competition resulting from or likely to result from the concentration shall not be prohibited if the undertakings concerned prove that such efficiency gains cannot otherwise be attained, are verifiable and likely to be passed on to consumers in the form of lower prices, or greater innovation, choice or quality of products or services." We are not aware of any cases to date where efficiencies have played a major role in the OFC's reasoning.

- The Netherlands

In the Explanatory Memorandum, it is noted that the NMa (Nederlandse Mededingingsautoriteit) will follow EC competition practice and will also take into account efficiency defences in merger control cases. Efficiency was touched upon very briefly in United News & Media - Bloomberg (Case 1229, 8 March 1999), but as far as it is known to date, efficiencies have otherwise not been expressly considered by the NMa in any merger control case.
On August 28, 2008, the Dutch Competition Authority (NMa) unconditionally cleared the acquisition of Truvo Nederland by European Directories.1 These two companies publish the only two nationwide print directories in the Netherlands, Gouden Gids (''Yellow Pages'') and De Telefoongids (''The Telephone Directory'') respectively. The NMa's decision not only revolutionises the assessment of the classified directories business under competition law, but also has far-reaching implications for all so called two-sided markets, and is a milestone in how competition authorities deal with complex economic evidence.

- Poland

Merger-specific efficiencies recognized as a possible defence for horizontal mergers that raise competition concerns are encompassed in Art. 20 of the Act on Competition and Consumer Protection. Evidence and arguments of expected improvements in efficiency have been accepted in some decisions. Example: Decision No. DOK-29/07- concentration in energetic sector. The President of the Office of Competition and Consumer Protection issued, by way of a decision, consent for the concentration. As a result, the competition in the market was significantly impeded; nevertheless, it was justified, because the concentration might exert a positive impact on national economy, in particular: energy security.

- Portugal

The article 12 of the Portuguese Competition Act sets out that one of the criteria that must be considered in a merger analysis is the technical and economic progress to that extent that it to the consumer's advantage and does not constitute an obstacle to competition.

- Romania

Efficiencies are taken into account, but there has yet to be a case where they are the turning point.

- Serbia

Pursuant to Article 19 of the Competition Act, a concentration is assessed according to the following criteria: structure of the relevant market; existant and potential competitors; market position of the participants to the concentration and their economic and financial power; possibility of choosing suppliers and users; legal and other barriers to entry; competitive level of the participants to the concentration; demand and supply trends; technical and economic development trends; consumers' interests.

- Slovakia

The efficiencies should be taken into account in merger assessment. Nevertheless we are not aware of any border-line cases where the Antimonopoly Office of the Slovak Republic would discuss in detail the efficiency considerations and how it affected the final decision.

- Slovenia

The role of efficiencies in merger assessment is not clear. Formally, no exemption exists for the general prohibition against concentrations which strengthen the power of one or more undertakings, individually or jointly, as a result of which effective competition on the relevant market would be significantly impeded or excluded. Although it seems certain concentrations might be approved on their basis, the CPO never made a formal reference to efficiencies in its decisions. Accordingly, in recent cases Union/Lasko and Europlakat/metropolis Media, the CPO approved a concentration although the analysed concentration would create a dominant position in the market and could significantly lessen effective competition. In this particular case the concentration, without any conditions, even in the absence of any mechanism for ensuring that any efficiency benefits would be passed on to consumers, was allowed.

- Spain

Efficiencies have been taken into account.

  - *Case law:* N-280 Sogecable/Via Digital

- Sweden

The Competition Act does not explicitly mention economic efficiencies. In practise, economic efficiencies are normally not taken into account by the Competition Authority.

- Switzerland

The ComCo (Competition Commission) takes economic efficiencies into account, at least when it can be expected that consumers benefit there from. Also, economic efficiencies in one market may outweigh certain deficiencies of the merger in another market.

- Turkey

In principle, efficiencies are taken into account in appraising a concentration. However, there is no express provision relating to efficiency considerations under the Turkish merger control regime. The wording of Article 6(b) of the Merger Communiqué provides that efficiency considerations are to be taken into account during the assessment of a given transaction. It is therefore a factor to be considered during the overall assessment of mergers. However, it is difficult to ascertain from the decisions of the Competition Board that efficiencies are decisively taken into consideration in the review process. Even though the Board considered efficiencies in its merger review, up until now, it has never taken the efficiencies into account solely to authorise a merger which would otherwise have been declared anti-competitive. In IBM/Cisco (Decision No. 00-16/160-82, 02.05.2000) which was a concentration with respect to acquisition of intellectual property rights regarding some data network products, the Board considered prospective technological developments amongst other factors and cleared the merger despite the high market shares reaching as high as 70.5 per cent in the post-merger market. In Valmet/Bobst (Decision no. 03-84/1020-408) an acquisition involving machines used by package producers, the Board considered the technological innovations that would flow from the acquisitions. In Legrand/Schneider (Decision no. 01-48/486-121), a concentration relating to electricity distribution equipments, the parties aimed to benefit from synergies to flow from research and development, marketing and production areas. The Board took those claimed synergies into account among other factors, such as the dynamic nature of the market and the absence of entry barriers.

- U.K

Efficiencies are not recognized as a factor in the legislation. However, they are recognised in both the Office of Fair Trading and Competition Commission guidelines. The merger assesment guidelines, released in September 2010, (section 5.7) refers to efficiencies, their types as well as how they should be treated by the Authorities.

On 8 August 2008 the UK Office of Fair Trading (OFT) cleared the acquisition by

Global Radio UK Limited (Global) of GCap Media plc (GCap), both active in commercial radio. In the London area, stations of the parties overlapped and the aggregate market share was estimated to be around 50 percent. Initially the OFT was sceptical and considered that (i) adverse effects would directly harm advertisers and (ii) possible efficiency gains '…while theoretically possible, must meet stringent efficiency evidence requirements rather than merely be assumed to be sufficientRBB economics advised the merging parties in this case.

Contrary to popular belief that the efficiency defence would remain a hollow promise, the OFT has shown in this recent media merger that merger efficiencies can help in obtaining merger clearance. However, it is clear that media merger may be special because what is good for the merging parties is good for the advertisers and vice versa.

- Ukraine

Efficiencies are taken into account by the Cabinet of Ministers of Ukraine in assessment of concentration prohibited by the AMC. Since 2002 there have been 3 cases when the Cabinet of Ministers of Ukraine approved the concentration on the basis of efficiencies.

References - Bibliography

Literature

1. Competition Policy: theory and practice, Massimo Motta, Cambridge University Press, March 2004

2. Competition Law, Richard Whish, 6th edition, Oxford University Press, October 2008

3. The EC merger regulation: substantative issues, Alistair Lindsay, 3rd edition, Sweet and Maxwell, October 2009

4. The Economics of EC competition Law: Concepts, Application and Measurement, Simon Bishop; Mike Walker, 3rd edition, Sweet and Maxwell, December 2009

Legislation

Regulations

Council Regulation (EEC) No 4064/89 of 21 December 1989 on the control of concentrations between undertakings (OJ L 395, 30.12.1989, p.1 as corrected by OJ L 257, 21.9.1990, p. 13)

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)

Commission Regulation (EC) No 802/2004 implementing Council Regulation (EC) No 139/2004 on the control of concentrations between undertakings (OJ L 133, 30.04.2004, p. 1)

Guidelines & Commission Notices

Commission Notice on the concept of concentration, (OJ C66, 02.03.1998 p.2)

Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings, (OJ C31, 05.02.2004, p. 5)

Commission Notice, Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings, (OJ C265, 18.10.2008)

Professor's notes

Economic analysis of merges and acquisitions under the competition law, Dr Ioannis Kokkoris, Athens University of Economics and Business, January 2011

References

1. Bishop, S, Lofaro, A, Rosati, F, Young, J; RBB Economics report, "The Efficiency- Enhancing Effects of Non- Horizontal Mergers", (2005)

2. P.Craig, G De Búrca, *EU Law Text Cases and materials*, (Oxford University Press, 3rd Ed, 2003) p. 1034

3. European Commission Directorate-General for Economic and Financial Affairs, op.cit. p. 45.

4. Council Regulation (EC) No 139/2004, Art 3 (1).

5. Commission Notice on the concept of concentration, para. 4. (O.J 1998, C66/02) (http://europa.eu.int/comm/competition/mergers/legislation/co406489_en.pdf)

6. Council Regulation (EC) No 139/2004, Article 3(4)

7. Lars-Hendrik Röller, Johan Stennek and Frank Verboven, Efficiency gains from mergers, in: The Efficiency Defence and the European System of Merger Control, a study prepared for the Directorate-General for Economics and Financial Affairs, No.5 (2001).

8. C. Luescher, "Efficiency Considerations in European Merger Control--Just Another Battle Ground for the European Commission, Economists and Competition Lawyers" (2004) 25 ECLR 72.

9. Gerard, D; "Merger Control Policy: How to Give Meaningful Consideration to Efficiency Claims?" CML. Rev 2003; 40,6; ABI/INFORM Global p. 1368

10. De la Mano, M; Enterprise Directorate-General European Commission, "For Costumer's Sake: The Competitive Effects of Efficiencies in European Merger Control" (2002)

11. Enterprise Paper No p. 8

11. Piaskoski, M, Finkelstein, N;" Do Merger Efficiencies Receive" Superior" Treatment in Canada? Some Legal, Policy and Practical Observations Arising from the Canadian Superior Propane Case" World Competition, 2004, 27 (2), p. 271

12. Habeck, M, KroÈger, F and TraÈm, M; After the Merger, Seven Strategies for Successful Post-Merger Integration (Pearson education Limited, London, 2000) p. 7

13. Luescher, C "Efficiency Considerations in European Merger control- Just another Battleground for the European Commission, Economists and Competition Lawyers" E.C.L.R 2004 25(2) p.73

14. ICN Merger Working Group: Analytical Framework Subgroup, "Project on Merger Guidelines" [2004], Chapter IV identifies fixed cost savings, promotional efficiencies, pecuniary (or) re-distributive efficiencies, marginal cost savings, demand side network effects and capital cost savings as the other kinds of efficiencies recognized by regulators in different jurisdictions. 12 Ann-Britt Everett and Thomas W. Ross, "The Treatment of Efficiencies in Merger Review: An International Comparison" [2002], Canadian Competition bureau, at p.15 (available at http://www.competitionbureau.gc.ca/epic/site/cb-bc.nsf/en/01263e.html accessed on 12/01/2009)

15. Rosen, Sherwin, Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition, Journal of Political Economy, 82, 1974, 34-55

16. Farrell, Joseph; Shapiro, Carl: Horizontal Mergers: An Equilibrium Analysis, American Economic Review; 80(1), March 1990, pages 107-26

17. Werden, Gregory J.; Froeb, Luke M., The Effects of Mergers in Differentiated Products Industries: Logit Demand and Merger Policy, Journal of Law, Economics, and Organization; 10(2), October 1994, pages 407-26.

18. Stennek, Johan: Horizontal Mergers without Synergies May Increase Consumer Welfare, unpub. Ms. Institute for International Economic Studies, Stockholm University, October 1996.

19. Stigler, George J.: Monopoly and Oligopoly by Merger, American Economic Review, Papers and Proceedings 40, 1950, sidorna 23-34.

20. Friedman, James, 1971, A noncooperative Equilibrium for Supergames, Review of Economic

Studies, 28, 1-12.

21. Davidson, Carl; Deneckere, Raymond, Horizontal Mergers and Collusive Behavior, International Journal of Industrial Organization; 2(2), June 1984, pages 117- 32.

22. Compte, Olivier, Jenny, Frederic, and Rey, Patrick, Capacity Constraints, Mergers, and Collusion, mimeo, 1996.

23. Schmalensee, Richard, Competitive Advantage and Collusive Optima, International Journal of Industrial Organization; 5(4), December 1987, pages 351-67.

24. Harrington, Joseph E., Jr., The Determination of Price and Output Quotas in a Heterogeneous Cartel, International Economic Review; 32(4), November 1991, pages 767-92.

25. Verboven, Frank: Corporate Restructuring in a Collusive Oligopoly, International Journal of Industrial Organization; 13(3), September 1995, sidorna 335-54.

26. Williamson, Oliver, Economies as an Antitrust Defense: Reply, American Economic Review, 954-959.

27. DePrano, Michael E., ad Nugent, Jeffrey, B., Economies as an Antitrust Defense: Comment, American Economic Review, 947-953.

28. Neven, Damien; Nuttall, Robin; Seabright, Paul: Merger in Daylight, The Economics and Politics of European Merger Control, Centre for Economic Policy Research, London, 1993.

29. Trichy, G. (2001) "What Do We Know About The Success and Failure of Mergers" Journal of Industry Competition and Trade, 1(4) p. 347-394.

30. Gugler, K., D.C. Mueller, B.B. Yurtoglu and C. Zulehner, "The Effects of Mergers: An International Comparison" International Journal of Industrial Organization, (2002) Forthcoming

31. Enterprise Papers No 11 op. cit. p.6

32. Goldberg, Pinelopi Koujianou; Knetter, Michael M., Goods Prices and Exchange Rates: What Have We Learned?, Journal of Economic Literature; 35(3), September 1997, pages 1243-72.

33. Goldberg, Pinelopi Koujianou; Verboven, Frank, The Evolution of International Price Dispersion in the European Car Market, C.E.P.R. Discussion Paper 2029, 1998.

34. Jensen, Michael C.; Ruback, Richard S.: The Market for Corporate Control: The Scientific Evidence, Journal of Financial Economics;11(1-4), April 1983, pages 5-50.

35. Jarrell, Gregg A.; Brickley, James A. M.; Netter, Jeffry: The Market for Corporate Control: The Empirical Evidence Since 1980, Journal of Economic Perspectives; 2(1), Winter 1988, p. 49-68.

36. The Treaty Establishing the European Coal and Steel Community, 1951, art. 66.7;

37. Article 3 (f) of the Treaty Establishing the European Economic Community, Rome, 25.03.1957 (non- consolidated version) (Treaty of Rome);

38. Rules applicable to firms: introduction, available at http://europa.eu/scadplus/leg/en/lvb/l26102.htm;

39. Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation), O.J. L24/1;

40. Merger control: Merger review package in a nutshell, http://ec.europa.eu/comm/competition/publications/special/3_merger.pdf;

41. Merger Regulation (EEC) No 4064/89 Article 2 (3)

42. Voigt, S " Schmidt, A;"Switching to Substantial Impediments of Competition (SIC) Can Have Substantial Costs- SIC" E.C.L.R 2004, 25(9) 584-590 p. 584.

43. McDavid, J "Proposed Reform of the EU Merger Regulation: A U.S Perspective" (2002) 17 Antitrust 52, at p.54

44. Fountoukakos, K " Ryan, R;"A Substantive Test for EU Merger Control" E.C.L.R, 2005, 26(5), p. 277-296

45. Andreas Weitbrechet, "EU Merger Control in 2004- An Overview"E.C.L.R, 2005, 26(2),p.67-74.

46. Air tours/Commission (Case T-342/99) 6 June 2000

47. Vivendi/Canal+/Seagram (Case COM/P 2050) 13 October 2000

48. 94/922/EC, MSG Media Service, [1994] OJ L 364/1

49. AT&T/NCR (Case IV/M.05) 18 January, 1991, [1991] O.J. C16/127

50. Airtours v. Commission (Case T-342/99) 6 June 2000 paras. 211-216, also see Gerald p.1405

51. Competition Act, R.S.C.1985, c. C-34, Can be found on http://www.competitionbureau.gc.ca/internet/index.cfm?itemID=1314&lg=e#mergers

52. The Commissioner of competition v. Superior Propane Inc (2000) Comp. Trib. File no. CT1998002 (Competition tribunal)

53. Piaskoski &Finkelstein op.cit. p.259

54. Aérospatiale-Alenialde/ de Havilland (Case IV/M.053) 2 October 1991, para 65-72

55. Accor/Wagon-Lits (Case IV/M126) 28 April 1992 Para.26. 2(f)

56. Air France/ Sabena Case No IV/M157 [1992] OJ C 272

57. Mercedes/Benz/Kässbohrer, (Cases IV/M.477) 14 February, 1995, Para. 65-66

58. Nordic Satellite Distribution (Case IV/M. 490) 19 July 1995

59. ABB/Daimler-Benz Case No IV/M580, Commission Decision 97/25/EC [1997] OJ L 11/1, para. 112–115

60. Camesasca op.cit.,p. 26 Other cases where the Commission, according to Camesasca, considers efficiency gains under the Merger Regulation 4064/89 is Alcatel/Telettr48 (Case IV/M. 042) 4 April, 191, Mannesmann/Valourec/Ilva (Case IV/M . 315) 31 January , 1994,

61. Schneider Electric SA v. Commission, (Case T-310/0), 22 October 2002

62. Monti, M; European Commissioner for Competition Policy, "Merger control in the European Union: a Radical Reform", European Commission/IBA Conference on EU Merger Control, Brussels, 7 November 2002.

63. Schmidt, J; "The new ECMR: "Significant Impediment" or "Significant Improvement" Common Market Law Review 41: 1555-1582, 2004 p. 1564

64. Commission Regulation 802/2004 implementing Merger Regulation No 139/2004

65. I. Kokkoris, “The Reform of the European Control Merger Regulation in the aftermath of the Airtours Case- the Eagerly Expected Debate: SLC v Dominance Test” E.C.L.R. 2005, 26 (1), p.37-47

66. Press release. IP/04/07 “EU gives itself new merger control rules for 21st. century.”

67. Merger Regulation (EC) No 139/2004, Article 2(3).

68. Colley, L;”From ”Defence” to “Attack”? “Quantifying Efficiency Arguments in mergers” E.C.L.R 2004, 25(6) p. 342-346.

69. Fountoukakos & Ryan opt.cit. p. 277-296

70. Commission Press Release 20/01/2004, MEMO 04/09.

71. General Electric/ Honeywell (Case COMP/M. 2220), 3 July 2001

72. GE-Honeywell: the US Decision, speech by Deborah Platt Majoras, US Department of Justice, 2001, http://www.usdoj.gov/atr/public/speeches/9893.pdf, p. 2;

73. http://europa.eu/legislation_summaries/competition/firms/l26107_en.htm

74. Case T-342/99, Airtours v Commission, [2002] ECR II-2585, paragraph 62.

75. Jeffrey Church, Church Economic Consultants Ltd. and Department of Economics University of Calgary, The Impact of Vertical and Conglomerate Mergers on Competition, September 2004

76. Riordan, M. H., and S. C. Salop. 1995. "Evaluating Vertical Mergers: A post-Chicago Approach." Antitrust Law Journal 63: 513-568.

77. Evans, D., A. J. Padilla, and M. Salinger. 2004. "A Pragmatic Approach to Identifying and Analyzing Legitimate Tying Cases." In European Competition Law Annual 2003: What is an Abuse of Dominant Position? Oxford: Hart Publishing.

78.http://ec.europa.eu/comm/competition/mergers/legislation/nonhorizontalguidelines.pdf

79. EAGCP, “Non-Horizontal Mergers Guidelines: Ten Principles,” August 2006.

80. Horizontal Mergers Guidelines, op. cit., para. 80

81. Davies J., Schlossberg R., Efficiencies – a changing horizon in horizontal merger control, Freshfields Bruckhaus Deringer, 2007, p. 6;

82. Miguel de la Mano, Enterprise Directorate-General European Commission. Op. cit., p.18.

83. Kiljanski, K;”Pass-on in Merger Efficiency Defence” World Competition 26(4) 2003, p. 653.

84. Monti, M, the Future of Competition Policy in The European Union, Speech at the Merchant Taylor’s Hall. 9 July 2001

85. Saint-Gobain/Wacker-Chemie/NOM, (Case IV/M. 774), 4 December 1996, paras. 244- 246.

86. De la Mano, M; Enterprise Directorate-General European Commission. p. 53

87. Korsnäs/AssiDomän Cartonboard case, op. cit., para. 61;

88. Shyam Khemani R., Efficiency Arguments in Merger Cases: Some Issues that Transacting Parties Should Consider, [in:] EC merger control: a major reform in progress. Papers from the EC Merger Control Conference held in Brussels in November 2002 under the auspices of the European Commission, Directorate General for Competition and the International Bar

Association, London 2003, p. 199;

89. Case COMP/M.3886, Aster 2/Flint Ink, 25 August 2005.

90. Shyam Khemani, op. cit., p. 201;

91. DG Competition, Best Practices on the Conduct on the Conduct of EC Merger Control Proceedings, section 18

92. Yde p., Vita M., Merger Efficiencies: The 'passing-on' fallacy, [in]: Antitrust 59, summer 2006;

93. Röller L-H., Stennek J., Merger control and enterprise competitiveness: Empirical analysis and policy recommendations, [in:] European merger control, Do we need an efficiency defense, edited by Ilzkovitz F., Meiklejohn R., 2006, p. 262;

94.http://www.imedipa.com/files/downloads/Fountoukakos-IMEDIPA_Conference_-_Athens_May_2009_-_K_Fountoukakos_-_FINAL.pdf

95. Case COMP/M.4057, Korsnäs/AssiDomän Cartonboard, 12 May 2006

96. Case COMP/M.1225. Enso / Stora, para 59

97. Case COMP/M.4000, Inco/Falconbridge, 4 July 2006,

98. Case COMP/M.3664, Repsol Butano/Shell Gas (LPG), 2 March 2005

99. Case COMP/M.3732, Procter & Gamble/Gillette, 15 July 2005

100. *Procter & Gambler/ Schickedanz* (Case IV/M .430), 21 June 1994

101. Case No. COMP. /M2537, Philips/Marconi Medical Systems, (2001)

102. RBB Economics *op. cit. p.i*

103. *Tetra Laval/Sidel* (Case COMP//M 2416), 30 October 2001

104. Case IV/M794 4 C.M.L.R.368;(1997) O.J. L.218/15 (1997)

105. Case IV/M833 5 C.M.L.R. 564 (1997)

106. Case IV/M938 O.J. L.218/15 (1998)

107. Merger Regulation No 139/2004, Recital (4)

108. I.Kokkoris, Assessment of Efficiencies in Horizontal Mergers: The OFT is setting the example, 2008

109. Site: http://www.concurrences.com/?lang=enEnglish > Competition Law > Antitrust Encyclopedia > Mergers > Efficiencies > Are efficiencies taken into account in merger assessment? Have there been cases where efficiencies played an important role?

110. I.Kokkoris, A PRACTICAL APPLICATION OF EVENT STUDIES IN MERGER ASSESSMENT: SUCCESSES AND FAILURES, June 2007

111. Study on Assessment Criteria for Distinguishing between Competitive and Dominant Oligopolies in Merger Control, Final Report for the European Commission Enterprise Directorate General by Europe Economics, May 2001