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Law and Economics of Merger Control in the European Union

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ABSTRACT

The present paper surveys and critically evaluates merger policies in the European Union. This is done on the basis of economic theory, or rather: theories, since expert opinions on merger policies differ widely. Comparisons are being made with merger cases and policies in the United States. Albeit not a benchmark, US antitrust legislation and practice boast a long history, have been influenced by theoretical arguments put forward by academic circles and, last but not least they were a source of inspiration at the conception of European policy making in the area. Findings indicate that the outstanding feature not only of competition policy but also of the theoretical analysis on which it is based is their highly political character, and that there is as yet no hard empirical evidence to indicate what microeconomic policies would yield the optimal outcome.

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1. Introduction: basic notions and the idea of the firm

The present paper intends to survey merger policies in the European Union and in the United States as well as to discuss their theoretical underpinnings. To some extent it also attempts to critically appraise merger policies in the European Union during the 1990s. Hopefully, it gives some hints about what issues are of importance for the candidate countries of East and Central Europe. It is critical, because the guidance offered by the decisions of EU authorities is far from unequivocal: rulings by Commission and Court are sometimes vague, sometimes contradictory, or so they appear. Therefore, in order to understand the issues better a closer look at these policies seems to be appropriate. This will be done, first of all, on the basis of economic theory, or rather: theories, since expert opinions on merger policies differ widely. Secondly, comparisons will be made with merger cases and policies in the United States. Albeit not a benchmark, US antitrust legislation and practice boast a long history, have been influenced by theoretical arguments put forward by academic circles and, last but not least they were a source of inspiration at the conception of European policy making in the area.

In a recent issue[1] *The Economist* asks the question whether America's fifth merger wave has come to an end or if it is just pausing? It all started a little more than one hundred years ago and the history of mergers is about as long as that of the modern industrial enterprise.[2] The first merger wave occurred during 1887-1904. That was the age of the great rationalisations in the wake of the innovations in transport and communication technology. The 1916-1929 merger movement distinguished itself from the first one insofar as a great part of the mergers took place in the utilities sector, vertical mergers played a more prominent role and mergers in the manufacturing sector had a less dramatic structural impact. The third merger wave came in the 1960s and was mainly characterised by conglomerate mergers. The bulk of mergers that were concluded during the 1980s will most likely be remembered for the many hostile takeovers. Scherer and Ross remark also that, unlike the earlier merger movements, that of the 1980s started with a slump and not with a boom.[3] 'America's fifth merger wave and perhaps the first truly global one' (*The Economist*'s phrase) may have just ended.

From the point of view of our topic two aspects of merger are of interest: the first one concerns the efficiency of the enterprise, the second one the efficiency of the market. As we shall see in subsequent sections, much of the controversy about mergers relate to the relative importance of these two issues. In the present section the development of the modern industrial enterprise will be scrutinised, first in its historical context and then theoretically by using the analytical instruments of what is by now known as the new theory of the firm.

The modern industrial enterprise emerged as a result of three major innovations in communications technology: the steamship, the railway and the telegraph. During most of the 19th century, markets for industrial products were primarily local due to high costs of transportation and the long time it took to move goods. Scheduled ocean shipping became possible because of the invention of the steamship and the construction of railways facilitated the faster and cheaper movement of goods on land. The drastic reduction of transport costs affected both ends of the production chain: not only did it become cheaper to sell products on more

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[1] January 27th 2001

[2] The label is Chandler's and most of this section is based on Chandler (1990), Martin (1994), chapter 9, Chapter 16 of Milgrom and Roberts (1992; that chapter, in turn, is mainly based on Chandler 1962, 1977 and 1990) and Scherer and Ross (1990, chapters 5 and 12)

[3] For a more detailed description see Scherer and Ross, chapter 5.

distant markets, far-away sources of inputs became more easily accessible too, thereby reducing the costs of production. With easier access to larger markets another source of lower production costs was within reach: the exploitation of economies of scale and scope. In short: the actual and potential advantages of large-scale production led to the rapid growth of firm size, and such a growth could be attained either by way of the internal growth of the firm or through mergers and acquisitions. It is interesting to note that, while the internal expansion of a firm is usually received by approval, growth by merger tends to arouse suspicion. Whether such a suspicion is justified or not will hinge upon the trade-off between the possible increase in the firm's internal efficiency and a possible reduction of the efficiency of the market or, more to the point, a reduction in consumer welfare.

The establishment of railways impacted on the shaping of the modern industrial enterprise also indirectly: apart from reducing the costs of transportation, the railways also provided a model for a new type of organisation. As Rickets puts it

> A railroad … requires a complex administration to undertake the function of scheduling the trains, contracting for fuel and other supplies, maintaining rolling stock and track, selling tickets to passengers or arranging for the carriage of freight and so forth.[4]

With the rapidly growing size of the enterprise, the owner-manager model of the classical entrepreneurial firm was gradually giving way to a new type of organisation, characterised by the separation of ownership and management. This required the establishment of a hierarchical organisation, which came to attain its most sophisticated form after World War I in the shape of the multidivisional firm. Because traditional neo-classical theorising rather one-sidedly concentrates on the technological aspects of cost efficiency, it is important to emphasise that organisational innovations were as much a part of the second industrial revolution as were the exploitation of the economies of scale and scope.

Chandler stresses the complementary nature of technological and organisational innovations. For an enterprise to be successful, he argues, it was necessary to make three types of interrelated investments. First of all, in new production facilities in order to fully utilise the economies of scale and scope. But such investments were not enough. To penetrate new markets it was also necessary to invest in product-specific marketing as well as in purchasing and distribution networks. Lastly, managers and supervisors at different levels and in different functions had to be recruited and trained.

The growth of the modern industrial enterprise in the United States was often the result of mergers and acquisitions. Why not of internal growth? The instinct to gain or preserve market power must have been there. Also, few individual entrepreneurs could afford to finance the huge investments necessary to build up the new structures. The problem, however, is more complex. To sort out the relevant issues and get some answers we resort to history as well as theory, both traditional and more recent. It seems practical to follow custom and subdivide mergers into three categories: horizontal, vertical and conglomerate.

Horizontal Mergers. Referring to a remark by Stigler, Martin concurs that the first merger wave in the USA (1883-1893) consisted of mergers for monopoly, while the second one (from the end of World War I to 1929) of mergers for oligopoly. In both waves mergers were mostly of the horizontal type, i.e., the companies that joined forces were competing on the same markets. Even present-day mergers take place between large-scale, oligopolistic firms. Martin

[4] Ricketts (1994), p. 175

uses models of the types developed by Cournot and Bertrand. Analysing a hypothetical situation in which there are three firms in the beginning, he asks the question: what will happen to price and output when two of them merge? He comes to the conclusion that the market power of the merged firms increases if they operate in a price-setting market, but that will not necessarily be the case if the market is a quantity-setting one. The internal efficiency of the merged entity may increase as a result of economies of multiplant operation or because it will be easier for a new management to scrap obsolete production units than it would have been for the old one. Referring to two merger cases on the microfilm market Martin finds support for the presumption that market concentration – as a result of merger – does lead to the price movements predicted by oligopoly models. It may be appropriate, already at this stage to point to one of the great controversies within the profession viz. the trade-off between price increases on the one hand, and improved efficiency on the other. Among professionals and policy makers alike, there is an abyss between those who want to focus on consumer prices (and consumers' surplus proper) alone and play down the benefits of increased efficiency, and those who are mainly concerned with the efficiency aspects of mergers or, more correctly, the deadweight loss in welfare, without paying too much attention to changes in income distribution. We shall discuss this controversy at length in subsequent sections.

Vertical Mergers. What we now call the "new theory of the firm" has its origins in the pathbreaking work of Coase. In *The Nature of the Firm*[5], having asked the question why there exist firms, he formulated his hypothesis:

> The main reason why it is profitable to establish a firm would seem to be that there is a cost of using the price mechanism

Coase summarised these costs under the label of "transaction costs". A vast literature on transaction costs has been produced since the publication of Coase's 1937 article, much of it having a bearing on our topic: why firms merge, or more generally, what determines the boundaries of the firm. Some of the major categories of transaction-cost economics[6] are: imperfect information that gives rise to bounded rationality; opportunism that arises from information asymmetry and can be classified into opportunism ex ante (adverse selection) and ex post (moral hazard). Moral hazard is a post-contract phenomenon signifying that one (or both) of the parties try not to live up to his (their) contractual obligations. A special case of moral hazard – and one particularly relevant in the present context – arises when one of the contracting parties has to invest in transaction-specific assets. Once the investment is made the investing party will find himself in a weak negotiating position would the other party, under any pretext, want to renegotiate the contract. The opposite outcome is also possible. The classical example is that of the merger between General Motors (GM) and Fisher Body Corporation (FBC)[7]. In 1919 the two companies agreed that FBC would deliver closed car bodies to GM at a cost-plus price (excluding capital costs). Soon market conditions changed with increased demand for such car bodies and GM found the relationship increasingly frustrating. To put an end to the (perceived?) opportunistic behaviour of FBC the two companies merged in 1926. In the case of complex agreements it is seldom possible to cover all contingencies of a deal in the contract. As is shown by this example, the existence of specific assets, possibly in combination with the uncertainties created by continuously changing conditions as well as with the large costs implied by formulating complete contracts, is considered to constitute a

[5] Coase, R. H. (1937)
[6] The main references are Milgrom and Roberts (1992) and Schmalensee and Willig (1989), especially chapter 3 by O. E. Williamson
[7] See e.g. Ricketts (1994) p. 200

strong motive for vertical integration. It is not the only motive though. If negotiation costs are high and organisational diseconomies are low vertical integration may again be a rational response to a transaction-cost problem. But of course, in neo-classical analysis there are no such problems: with perfect information there can be no room for negotiations and no room for moral hazard. In reviewing Coase's collected essays[8], Williamson goes to the heart of the matter:

> Treating the firm as a production function – which is the applied price-theory approach – rather than as a governance structure – which is the transaction-cost economics conception – has led to a "preoccupation with … monopoly" (p.67). Thus, whereas transaction-cost economics regards economising as the standard explanation for business behaviour, or "main case", the applied price-theory approach invites an entry barrier or price discrimination interpretation of non-standard or unfamiliar business practices.

In the following it will be abundantly clear that the two theoretical approaches most often come to diametrically opposite conclusions as to the social desirability of mergers. Let us look at the details.

2. The neo-classical paradigm

1.1 Monopoly or the Lure of Quiet Life. Seen in the mirror of neo-classical welfare economics the arguments against monopoly are straightforward: perfect competition is the norm because it results in Pareto optimality; Pareto optimality is a state where the sum of consumers' surplus and producers' surpluse is maximised; in contrast and in comparison with perfect competition, monopoly results in too little production – and consumption – of the good in question and consequently in a dead-weight loss. Therefore, from the social point of view, it is undesirable. The argument is summarised in Figure 1.

In figure 1 p, q, S, D and MR denote price, quantity, supply, demand and marginal revenue, respectively. In perfect competition q_c quantity is sold at a price that is equal to p_c. This equilibrium is Pareto optimal because, S reflecting the marginal cost of the industry, consumers' willingness to pay at the margin (i.e., at W) is exactly equal to the value of the resources sacrificed at the margin. If the market is monopolised the firm will sell q_m units at a price p_m, i.e., the quantity sold is less and the market clearing price is higher than in the case of perfect competition. The resulting dead-weight loss is represented by the area VWZ. In addition to the dead-weight loss the area $p_m p_c$VU represents an income transfer from consumers to producers.

[8]Coase (1988) and Williamson (1989b)

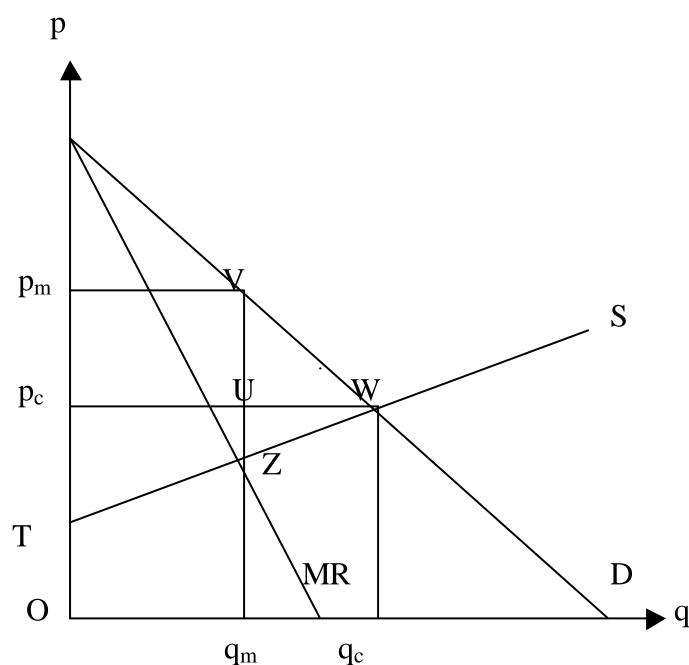

Figure 1

1.2 The dominant-firm approach. Monopoly to be viable requires meeting two basic conditions: on the supply side there should be no threat to the incumbent's remaining the sole producer in the market (the quiet-life condition); on the demand side there should be no close substitutes to the good. Adam Smith's acid remark about entrepreneurs' inclination to conspire against the public took a dramatic expression in the quadrupling of the price of oil in the 1970s. One (admittedly simplified) way of modelling that event is the monopolisation process in terms of figure 1 above.

Up until these days the oil shock of the 1970s remains one of the pet exercises of academic lecturers since real-world examples of genuine monopolies are in such a short supply. Therefore, the model of pure monopoly has only a limited practical interest. For the purposes of understanding and analysing real-life situations as well as for formulating criteria for policy interventions the dominant-firm model provides a far better starting point. Before getting there, however, a few words about "competition among the few".

The basic feature of the two extreme models – those of pure monopoly and perfect competition – is the independence of the actors. The monopolist doesn't have to bother about rivals, his only constraints are the demand curve and the production function. Also, in a perfectly competitive market actors don't care whatever any other single producer does, they can sell any quantity they like at the given market price. In contrast, the principal characteristic of oligopolistic markets is the fact that one "player's" move depends on those of the others. Such situations are not very easy to model. As was observed by Coase (1988), models of oligopoly abound which in turn means that there is no good theory yet for the phenomenon. Nevertheless, as a background to the dominant firm model, a few remarks seem appropriate.

19th century French mathematician Augustin Cournot developed the theory of monopoly as reflected in figure 1. He also formulated a theory for duopoly, the simplest form of oligopoly; with the assumption that each of the two actors takes the output of his rival as given, and with

that output as a constraint maximises profit. Taking the above assumption and adding cost functions, reaction equations are developed the simultaneous solution of which yields the equilibrium outputs of both firms. Using this model as a starting point, Heinrich von Stackelberg formulated his model of market leadership, the essential difference being that the leader does not follow his reaction function and produces an output greater than the one in the Cournot model. Recognising the leadership of his rival, the follower adjusts his output according to his own reaction function. In more realistic situations there might be several followers. But why should market leadership be accepted? One reason may be a cost advantage that the leader has compared with the others. Scherer and Ross (1990) show that the leader's market share will be larger the greater is the difference between the marginal costs of the leader and those of the followers. There is also a relationship (a more complicated one) between the market share of the leader and the number of followers.[9]

From this more elaborate Stackelberg model there is only a small step to theories of the dominant firm.[10] The notion of the dominant firm is important because, while legal texts in the United States often use the term "monopolisation", the expression used in European ones is (the abuse or abusive exploitation of) a dominant position. The basic idea of dominant-firm models can be described as follows: in a given market there is one large firm with a considerable market share, surrounded by a number of small firms, the competitive fringe. In contrast to the Cournot and Stackelberg models, these small firms have no reaction functions; they take the market price as given and maximise profits as they would on a perfectly competitive market. The dominant firm is assumed to possess knowledge of the market demand curve as well as of the marginal cost curves of its small-firm competitors. From these relationships it derives its own demand curve by subtracting the supply curve of the competitive fringe from the market demand curve, equates marginal revenue with marginal cost, and thereby determines the market price as well as its own optimal output. Figure 2 (adopted from Koutsoyiannis, 1979) illustrates the point.

[9] Models of oligopoly are standard ingredients in advanced and intermediate-level textbooks. See for example Henderson and Quandt (1980), Koutsoyiannis (1979), Martin (1994) or Scherer and Ross (1990)
[10] See for example Koutsoyiannis (1979), Martin (1994) or Scherer and Ross (1990)

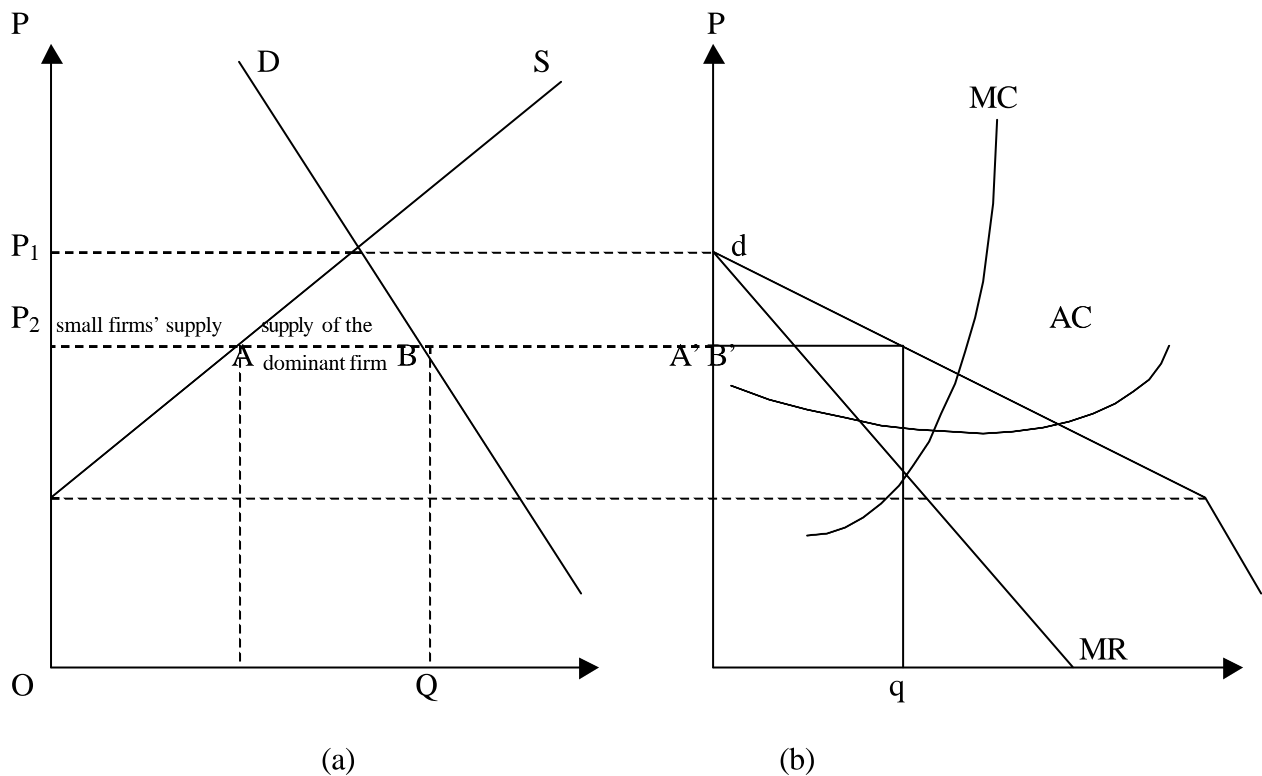

Figure 2

As it is evident from figure 2 the (residual) demand curve of the dominant firm (d) is derived from the market demand curve (D) and from the supply curve of the fringe (S) in exactly the same way as is the import function of a country from domestic demand and supply curves. In turn, this residual demand curve gives rise to a residual marginal revenue curve (MR). Equating marginal cost with marginal revenue the dominant firm finds its equilibrium quantity q as well as the equilibrium price P_2 (figure 2b). Since firms in the competitive fringe are price takers P is at the same time also the equilibrium price of the entire market. (Note that the distance AB in panel (a) is the same as the distance A'B' in panel (b))

The model is determinate and simple. However, there may be good reasons for the dominant firm *not* to act as a monopolist, as there may also be perfectly good reasons to do so. To begin with, the dominant firm is not a monopolist. There are already rivals in the market even though they are small and do not wield market power. If the dominant firm were to set a price such that it exceeds the average costs of (at least some of the) fringe firms, they will have incentives to expand. The increased capacity thereby created will push the supply curve of the fringe to the right, and consequently the residual demand curve of the dominant firm to the left. The result will be a gradually declining market share for the dominant firm.

From the simple static limit price model emerged more sophisticated dynamic ones focussing on the speed of adjustment as well as the pricing strategy of the dominant firm. In view of the European Commission's heavy emphasis on the rapid eradication of supernormal profits that may arise from mergers a brief glance at the conclusions of these dynamic models seems pertinent. But first some preliminary remarks.

Bain introduced the notion of *blockaded entry* meaning that efficiency differencies between the incumbent dominant firm and potential entrants are so pronounced that even monopoly pricing by the former would not induce the latter to actually enter the market.[11] It should be also noted that a temporary dominant position may or may not be an indication of a cost advantage on the part of the incumbent, at least as far as production costs are concerned. For example, the dominant position may emanate from the rewards accruing to the first mover combined with a slow response on the side of potential rivals or from patent rights. Furthermore, the rules of the game are likely to be different depending on the character of potential competition: is the threat coming from the already established firms of the competitive fringe or is there any big potential rival as yet outside the market contemplating entry? The question is in which direction will the strategic decisions of a dominant firm go as a response to such variations in the business environment.[12].

Let us first consider the possible expansion of output by actual competitors on the fringe and/or the entry of potential small-scale rivals. Gaskins[13] was among the first to formulate a dynamic model of the limit pricing problem in such a scenario. Formulating a hypothesis according to which the rate of change of supply by actual and potential competitors is a function firstly, of the difference in each time period between the actual price set by the dominant firm and the limit price and secondly, the speed of adjustment by its rivals. In mathematical language

$$dq/dt = k(t)[P(t) - P_0] \qquad (1)$$

where the term on the left-hand side of the equation is the rate of change of rival-firm output, k(t) indicates the speed of adjustment in period t, P(t) the price charged by the dominant firm in the same period and P_0 the limit price.[14]

Analysing the basic Gaskins model and variants of it Scherer and Ross discuss the 'strong and plausible conclusions' that emerge from these models.[15] They identify three relevant business environments to which the incumbent dominant firm seeks to adjust.

Case I: *The dominant firm has no cost advantage*. In this case it is only a matter of time before the dominant position will weaken and eventually come to an end. Therefore, the incumbent will select a price above the limit price but below the short-run profit-maximising price. Above the limit price because the possibility of earning some economic profit will vanish soon. Below the profit-maximising price because it wants to spin out the time of the final countdown. For example, such a strategy may be based on the assumption that too narrow a profit margin on the investments of entrants will make it more difficult for them to find the funds for financing the costs of entry. Nevertheless, the oft-quoted example of the ball-point pen suggests that monopoly pricing can be an attractive option: Reynolds International Pen Corporation is reported to have charged a price up to twenty-five times higher than cost thereby inviting the rapid establishment of a host of rival producers.[16]

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[11] Scherer and Ross p. 362 and Martin p. 73
[12] The following short exposé is based on Scherer and Ross (1990) chapter 10 and Martin (1994) chapter 4
[13] Gaskins (1971)
[14] Scherer and Ross ibid. p.362
[15] ibid. pp. 363-66
[16] ibid. p. 365

Case II. The dominant firm has a significant cost advantage. In such a case the incumbent currently holding strong position is likely to be able to retain that position also in the future. At the same time the scope for a significant profit margin is the larger the smaller the number of competitors. Driving out at least some rival firms thus appears a sensible strategy. Such an objective can be attained by initially (and temporarily) setting a price lower than the limit price. Once the number of rival firms is reduced to a comfortable figure and the desired level of market share is in sight the price can be raised gradually and above-normal profits enjoyed.

Case III: Asymptotic limit pricing. Increased market share may, but not necessarily will, increase the discounted value of the stream of current and future profits. In this scenario the dominant firm is again in the possession of a cost advantage. However, further price reductions aiming to augment market share may reduce current profits to such a low level that higher profit streams in the future will not counterbalance current loss. Then the appropriate strategy may be to charge a price gradually approaching the limit price. I many cases, however, cost advantage will not last forever. Expiring patent rights as well as new technologies developed by other enterprises will nibble at the profit margin of the dominant firm. In such a case two possible strategies could be considered. One is to set price below the limit price and drive out rivals and then raise the price to a level that makes the market unattractive to others. Were such a strategy run the risk to evoke the interest of bodies like DG IV an alternative strategy, suggested by Gaskins as a good second best solution, would be to set price in the neighbourhood of the limit price.

Scherer and Ross discuss other scenarios as well such as the one when the dominant position is held not by one single firm but by a group of firms. Because the treatment of such constellations is likely to belong to the realm of "collusive oligopoly", i.e., article 81 rather than article 82 cases in terms of the Treaty of Amsterdam, further comments will only be made in connection with the illustrative cases in section 7 below.

Consider next the situation when, in addition to a group of small firms already competing with the dominant firm, a large firm not yet in the market is contemplating to enter the business. Scherer and Ross conclude that the incumbent facing such a troublesome scenario is likely to opt for a two-pronged strategy. First, it will try to drive out existing rivals by setting a price too low to be profitable for the fringe firms to stay in business. The second part of the strategy consists of taking measures that threaten the potential entrant to incur huge losses in case he attempts to set up shop. Credible threats can take many forms, like capacity expansion, investing in customer loyalty, limit pricing, a reputation for being tough e.g. a demonstrated willingness to engage in a price war if necessary.[17]

3. The structure-conduct-performance (S – C – P) paradigm

> Concern with the size distribution of sellers reflects the *belief* that a market with one very large firm and several small ones is more likely to perform as a monopoly than a market with a few firms of roughly equal size. Like many intuitive notions these … are sometimes correct and sometimes not[18]

The traditional neo-classical models of perfect competition and monopoly provide elegant starting points for abstract theorising as well as a useful analytical framework for logical ex-

[17] ibid. p. 392
[18] Martin (1994) p. 4 (italics added)

ercises that aim to derive qualitative conclusions as well as testable hypotheses from the rather unrealistic assumptions on which these models are built. The structure-conduct-performance approach was meant to offer a practical alternative to neo-classical welfare economics, i.e., a normative approach with an elaborate statistical analysis and a solid data base. Industry-wide average long run costs were calculated, concentration ratios were measured, relationships between structure and conduct, conduct and performance were established. The gist of the approach is roughly as follows:[19]

Structure. In the beginning there was the linear S-C-P hypothesis suggesting that conduct would be determined by structure and structure and conduct would jointly determine performance. This hypothesis is also inherent in the neo-classical model, at least in the form it is presented in many textbooks: apart from free entry and exit, homogeneous products and price-taking behaviour we also see the assumption of many sellers and buyers. *Because of* the many competitors no firm alone can influence the market price. By contrast, monopoly with *one* seller only is supposed to have discretion over price setting. The assumption that a homogeneous product is necessary for a Pareto-optimal state is, of course, embarrassing: a variety of goods are as much part of a free and reasonably developed society as the idea of consumers' sovereignty itself. However, albeit recognising the significance of product varieties, the S-C-P paradigm does consider the existence of differentiated products as a problem because the downward sloping demand curve leaves some scope for discretionary behaviour. Lastly, even though entry as well as exit may be perfectly free the occurrence of economies of scale, substantial initial investments in production facilities, research and development (R&D) and advertising will make the potential investor to think twice before deciding to enter the market, especially so, if a large part of the investments will turn out to be sunk.

Conduct. Collusion, strategic behaviour, R&D and advertising are the key words here. The smaller the number of actors, the easier it is to collude as well as to see that the agreed measures are adhered to. Mention has already been made about strategic behaviour in connection with the dominant firm. As is pointed out by Martin,[20] strategic behaviour by a dominant firm, for example in the form of limit pricing, may be socially beneficial (although the dominant firm is, as we know it, the nearest thing to monopoly). The arguments about advertising are many and varied. Some consider it as a waste of resources, others think it might be socially beneficial as a result of the information it conveys to consumers. R&D, on the other hand, is supposed to have positive effects on growth and efficiency in a dynamic context.

Performance. Given a state of long-run general equilibrium and a market form of perfect competition Pareto optimality will prevail. Such states are characterised by firms only making normal profits. This is the basis for the interest of the S-C-P approach in profits. Long-run general equilibrium results in efficiency too. In practice, however, problems arise on two levels. First, given substantial economies of scale, perfect competition may break down. Seen from another angle, with many firms producing volumes less than the one indicating the minimum efficient scale (MES) of operations the social cost of the total output of the industry will not be minimised. Second, the dynamic context: will perfect competition or "big business" maximise the rate of technological progress? Or, as Martin puts it, 'Must we grant firms monopolies to encourage innovation? If we must, should we?'[21]

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[19] The organisation of the presentation is based on Martin (1994) pp. 3-8, the content on general conclusions of economic models as well as on Martin
[20] ibid. p. 5
[21] ibid. p. 7

People concerned with the social costs of restricted competition welcomed the structure-conduct-performance paradigm and expectations were high. In Sweden, for example, a large-scale project was commissioned by the social democratic government of the time (the early 1960s) to study the effects of concentration within industry, trade and the financial sector. The reports that were published were clearly inspired by the approach of Bain. However, it soon became clear, in Sweden[22] and elsewhere, that the linear relationship postulated by the S-C-P approach would not hold, especially not in the long run. Strategic behaviour (conduct), for example on the part of a dominant firm, the goal of which is to eliminate rivals, will affect structure almost by definition. At the same time and also in a dynamic context, performance (especially profitability) will influence conduct (e.g. R&D activities) and as a result technological development. These new insights alongside with the development of new theoretical models (game theory) focussing on oligopolistic markets, as well as using refined statistical methods were soon absorbed by the body of thought labelled "New" Industrial Economics which, however, retained some of the basic ideas of the S-C-P approach. Nevertheless, what captured the interest of both academics and regulators during the 1970s and 1980s was a far more hostile flow of criticism of the doctrines formulated by Bain and his followers. This criticism was coming from the adherents, lawyers as well as economists, of the so-called Chicago school. Because of their influence exerted on both academic thinking and practical policies we shall look at their main ideas in some detail.

4. Benchmark or nirvana economics: the Chicago critique of the theoretical foundations of antitrust

> The view that now pervades much public policy economics implicitly presents the relevant choice as between an ideal norm and an existing 'imperfect' institutional arrangement. This *nirvana* approach differs considerably from a *comparative institution* approach in which the relevant choice is between alternative real institutional arrangements[23]

> Facts must be placed into a system of belief before they yield to interpretation[24]

4.1 Demsetz on the theory of monopoly. The Columbia Law School Conference on Industrial Concentration took place in March 1974. That conference staged a confrontation of some of the most well known protagonists and antagonists of antitrust and produced a volume of papers that even a quarter of a century after their appearance make indispensable reading for the student of the subject. The arguments labelled, as "the Chicago critique" will be reviewed below primarily on the basis of one article each by Harold Demsetz and John S. McGee. Comments by other participants will also be noted.

Over the years Harold Demsetz has been one of the most persistent critics of the intellectual foundations of antitrust policies as well as of antitrust itself. Before turning to his paper, however, it is worth while listening to two other participants.

Speaking of the theoretical approaches to antitrust, Dewy is almost haunted by the spirit of the great theological debates:

[22] Cf. SOU (1968)
[23] Demsetz (1969)
[24] Demsetz (1974)

A quick sampling of the literature of industrial organisation suggests that the study of concentration has traditionally had much in common with evangelical theology. One influential dogma asserts that concentration occurs because it creates scale economies in production and research… The other major contending dogma asserts that industrial concentration comes about because it creates monopoly power and so makes possible the collection of economic rents.[25]

At the conference the papers on "The Concentration and Profits Issue" were introduced by Professor (later Nobel Laureate) Ronald H. Coase who pointed to the two main dilemmas of the issue:

There are really two controversies in this area, one relating to the statistics and the other to the analysis. The resolution in one area, either statistical or analytical, doesn't necessarily help one in coming to the resolution of the other…
… there have been a whole series of studies which suggest that there is a relationship, a positive relationship, between concentration and profitability. People point out that this relationship is weak. However, the people who are impressed by this set of statistics say maybe it is weak, but it is really very surprising that so many studies of different sorts get the same results…
But then you have another set of results … which say if you take different time periods, if you extend the sample, this relationship that other people have found tends to disappear. This involves a conflict which really has to be resolved, or so I think…
But then there are problems of an analytical sort. Many of those who first developed these concentration-profitability studies interpreted a positive relationship as evidence of monopoly. More recently, others have suggested that such results are quite consistent with competition. So you have then the problem that even if you can decide that there is a relationship, it doesn't really tell you whether you have got competition or monopoly.
On the other hand, there are Professor Brozen's results which suggest no relationship at all. And , unfortunately, some people suggested that you might get this relationship with either monopoly or competition[26]

Demsetz' argumentation[27] is in much the same spirit as the one reflected by the above quotations. The gist of his paper ("Two Systems of Belief about Monopoly") can be set out under three headings: what you see depends on what you believe; what you believe will have a strong bearing not only on the type of data you are going to collect but also on the way you will interpret the results; referring to studies by Brozen and others he also suggests that their results contradict the conclusions of those who found evidence in favour of the S-C-P paradigm.

Demsetz classifies theories on monopoly as belonging to two systems of belief. One suggesting that monopoly arises as a result of firms' efforts to monopolise markets and that this can happen without help from government interference (the "self-sufficiency theory"). In contrast, proponents of the other theory assert that monopoly is the result of government intervention – in favour of one firm or a set of firms – without which it would not arise or at any rate it would not last ("the interventionism theory").

It seems expedient to roughly divide Demsetz' arguments into those on theory and those on statistical methods and the interpretation of data even though the dividing line may be blurred.

4.1.1 The Structure-Conduct-Performance Paradigm Scrutinised. Well into the twentieth century the interventionism theory dominated economic thinking. Tendencies toward increased concentration – the result of reduced costs of transportation as well as of the emergence of the joint-stock company which greatly facilitated the financing of large-scale projects – explain the replacement of the ruling paradigm with the "self-sufficiency" theory. Little

[25] Dewey (1974) pp. 3-4
[26] Coase in Goldschmid et al. (1974), p. 163
[27] Demsetz (1974)

by little the theoretical abstractions of perfect competition and monopoly came to be regarded as true representations of economic reality and the S-C-P doctrine came to provide an empirically oriented approach as a proxy for traditional welfare theory. However, in Demsetz' view, the new paradigm suffered from a number of shortcomings and failed to address some essential issues. The theoretical justification of the link between the degree of concentration and the rate of profit was weak. The effects of actual and potential entry were not adequately dealt with. In particular, how could price exceed average cost during an extended period without evoking entry? Some types of cost were arbitrarily classified as "barriers to entry", and it was precisely these costs that were supposed to explain why entry was not taking place in many oligopolistic markets (more on this below). Yet another theoretical issue raised by Demsetz concerns the confusion of long-run economic rents with profits: when the statistical analysis is based on accounting data, no distinction can be made between accounting costs on the one hand and economic costs on the other. In particular, some factors of production may be undervalued by the market mechanism and such an under-valuation manifests itself as an accounting profit. Yet another problem is that it is difficult – if at all possible – to distinguish between profits due to market power and profits due to superior efficiency.
Since the competent authorities of the European Union attach considerable importance to barriers to entry we have to look at this problem more closely. The privileged position that the concept continues to occupy in scientific, law-making as well as in law-enforcing circles, is due to Joe S. Bain's influential writings[28] around the middle of the last century. Also, it was these writings that made the S-C-P paradigm lift. According to this philosophy[29] entry barriers may be primarily due to three kinds of entry condition: increasing returns to scale, product differentiation and absolute cost advantage. Bain believed that when the MES amounted to 5% of industry output it would deter entry. Economies of multi-plant operation and economies in distribution would necessitate horizontal and vertical integration, respectively. Also, upon entering the market at a smaller scale than the MES new firms would incur higher costs than the incumbent larger firm(s). Product differentiation could impede the establishment of new capacity in three ways. First, because consumers (for one reason or another) would prefer established brands and changing consumption habits would require huge sums to sink in sales promotion. Second, the necessity of advertising could increase MES. Third, the introduction of a new brand is usually a risky enterprise and that would adversely affect the entrant's borrowing rate of interest. Lastly, absolute cost advantage could arise as a result either of possession of an essential input or of the higher risk associated with the establishment of a new firm.

The above list is a rather harsh one considering that it comes from the promised land of free enterprise. One doesn't have to agree with all the arguments of the Chicago school to wonder what would happen to the dynamics of capitalism if all the above "barriers to entry" were banned, product differentiation were prohibited, consumers were told what to like and what not to like, and so forth. In Demsetz' view it lacks theoretical justification to classify certain types of expenditure as "barriers to entry":

> What does it mean to say that advertising expenditures and capital outlays constitute barriers to entry? One meaning is that firms must make such expenditures if they are to produce and communicate about the commodities they hope to sell. Such expenditures are no more barriers than are expenditures on labour and material.'[30]

4.1.2 Statistical Studies and Their Interpretation. Above we have discussed briefly the Chicago view of the shortcomings of the theoretical foundations of the S-C-P paradigm in general

[28] For references cf. Martin (1994)and Scherer and Ross (1990)
[29] Martin (1994) pp. 198-200
[30] Demsetz (1974), p. 173

and of the approach used by Bain and his followers in particular. However, Bain's approach combined theory with statistical analysis and Demsetz found the statistical analysis wanting as well. On closer scrutiny it turned out not to be representative of American industry. It also left important issues unexplored, for example why nine industries with relatively high concentration ratios showed lower profit rates than eleven other industries with lower concentration rates. Bain's studies were followed up by others using similar techniques. Demsetz noted that in many cases they were based on cross-section data, hardly the best approach to prove the persistency of super-normal profit rates. He also raised a methodological objection. In his studies Bain was mostly interested in the profit margins of larger firms in concentrated industries. Demsetz found this approach incorrect: in the presence of economies of scale larger firms earn superior profits compared to those of smaller firms in the same industry. To demonstrate the presence of collusive behaviour on the part of the larger companies it would be necessary to show that smaller firms earned super-normal profits as well. In a study undertaken by himself along these lines he found little evidence that such overall larger than normal profit ratios would exist.

4.2 McGee on Efficiency and Economies of Size.[31] Within a few days after beginning his studies the student of economics is confronted with that well known set of cost curves which, alongside with supply and demand schedules, are the foremost symbol of neo-classical economic theory. What McGee says about the concept of "econo-mies of scale" probably also reflects his opinion on cost curves:

> I think that rubric misdirects excursions into the real world, and perpetuates a set of mind that interferes seriously with analysis and diagnosis.[32]

We will review McGee's arguments in the same manner as we discussed those of Demsetz, i.e., by first examining the conceptual issues and thereafter his criticism of the statistical methods mainly used for estimating cost curves.

4.2.1 Conceptual Issues. The notion of "minimum efficient scale" (MES) occupies a prominent place in antitrust discussions. Denoting the lowest quantity of production that can be produced at the lowest possible cost it serves as a benchmark with which actual costs of production are compared, or at least that is the basic idea. The simplest neo-classical model should, again, serve as a good starting point. Given perfect information about everything that matters a unique average cost curve (usually long term) can be calculated. Reflecting a relationship between average cost and quantity produced, such a curve, it is said in the textbooks, will be determined by the state of technology and of factor prices. It will also reflect increasing and/or decreasing returns to scale, if any. Econometricians and industrial economists have spent time and money on developing sophisticated methods, including the addition of more realistic variables, for their estimation. The issue is whether we have reached the point where these estimates are reliable enough as a basis for policy decisions. Most economists who sympathise with the Chicago school would say they are not. In his essay McGee takes great pains to explain why.

The key question is what should enter into the cost curve. The rate of output per relevant time period (say a year) is the first obvious candidate. But already here we have the first problem. Referring to a study by Alchian McGee identifies 'the total *volume* of a model produced before its production is stopped for good' as well as 'the amount of *time* available for planning

[31] John S. McGee (1974) pp. 55-97
[32] ibid. pp. 55-56

and preparation before any production is actually begun'. Having recognised the importance of total volume it is easy to understand that the durability as well as other attributes of the equipment to be used in the manufacturing of the product will heavily depend on the decision what the time horizon of the production decision is. These considerations will have a bearing on the cost of the equipment but not only on that. Management, organisation, and sources of supply, selling and sales promotion, research and development, financing, in short: all components of the production process, both individually and the way they are organised will affect costs. The choice of quality and design, the product mix, plant size, firm size, the number and dispersion of production units, the length of the production run and the subsequent learning curve effects are also part of the story. In short:

To prosper, the firm must do a good job of planning, designing, and financing; organising and tooling appropriately for the rates and volumes actually achieved; controlling the production process; selling the products; and so on. There is no reason to believe that all firms will be equally good at everything that is involved.[33]

McGee then goes on to discuss why costs may differ among firms. One reason is that consumers may prefer the product of one company to that of another and those who sell more will probably have a higher profit than those who sell less. A case in point is the recent troubles of Hennes och Mauritz (H&M), a Swedish international chain store in the confection business: choosing the wrong summer collection (year 2000) was enough to send the company's profit diving 20%. Another reason is that two firms may choose two different production programmes even if they both have the option of selecting the same programme. The capacity to adjust to risks is yet another determinant of costs.

What all this boils down to is that average cost will depend on the choice of strategy by the firm which, of course, takes place in the face of uncertainty and which will involve transaction costs:

in the real world, there are substantial costs of discovering cases of superiority, discerning and evaluating their cause, and arranging transfers of rights.

4.2.2 Empirical Cost Functions. It is said that econometric studies are essays in persuasion. Or, as Scherer and Ross put it,

A certain amount of art is unavoidable in statistical studies of structure-conduct-performance relationships – for example, in choosing meaningful indices of market concentration and entry barriers, in devising a proper econometric structure, and even in interpreting what has been observed. This poses risks of conscious or inadvertent bias, or, as Harold Demsetz has warned, that "believing is seeing."[34]

Since some of the problems of statistical estimates have been already discussed above and also in view of the insights just quoted we will only give a brief summary of McGee's extensive exposé on the subject. First, he argues that statistical cost and production functions suffer from arbitrary asset valuations. Problems will be encountered whether one uses time-series or cross-section data. Functions based on time-series data will reflect not only the state of art in technology but economic conditions and external shocks as well. If, on the other hand, cross-section data are used, other problems will arise:

[33] ibid. p. 61
[34] Scherer and Ross (1990), pp.446-7

observed differences in factor inputs are caused by differences in production functions (or accidents) and the observations do not identify a *particular* production function… Constant cost curves in cross sections may be evidence of competiotion rather than of constant returns to scale.[35]

A second method of estimating production functions is by using engineering studies. A severe shortcoming of such studies is that, focussed as they are on technological relationships, they ignore practically all the problems that have to do with the management and organisation of the firm including decisions on plant location as well as factor price differences at different locations. Multiple-product plants raise special questions. McGee concludes that the ways MES are measured are unsatisfactory.

A third approach is the "Survivorship" technique developed by Stigler. According to this method, firms in an industry are classified by size and the share of each size group in production is calculated. The shares are followed up over time and

If the share of a given class falls, it is relatively inefficient, and in general is more inefficient the more rapidly the share falls.
An efficient size of firm…is the one that meets any and all problems the entrepreneur actually faces: strained labour relations, rapid innovation, government regulation, unstable foreign markets[36]

It seems symptomatic for the present state of the debate that Stigler writes of his survivorship technique:

The survivor technique is not directly applicable to the determination of the socially optimum size of enterprise and we do not enter into this question. The socially optimum firm is fundamentally an ethical concept, and we question neither its importance nor its elusiveness.[37]

The last empirical method discussed by McGee is profitability studies. Like Demsetz, McGee is sceptical about the usefulness of measured profits calculated from accounting data. Nevertheless, he discusses possible interpretations under the assumption that such data correctly register economic profits, and poses the question: under what conditions would be the existence of accounting profits a sign of efficiency? Assuming that industry is highly concentrated, consider two cases:

Case 1: actual AC < hypothetical AC under lower concentration
actual price = hypothetical price under lower concentration
actual price > actual AC

When all these conditions are met consumers are as well off in the actual state of high concentration as in the hypothetical state of lower concentration, resources are less wastefully used and producers are better off than they would be if the industry would be less concentrated. In this case measured profits truly reflect the superior efficiency of the highly concentrated structure.

Case 2: both price and AC are lower than in the hypothetical state with lower concentration. In that case measured profit will understate the difference in efficiency.

Case 3: actual AC = hypothetical AC under lower concentration
actual price > actual AC

[35] McGee (1974) p.67 (a citation from a study by A. A. Walters)
[36] Stigler as quoted in McGee (1974), p. 80
[37] ibid.

Again, measured profit will fail to reflect the comparative efficiency of the actual and hypothetical states. But, asks McGee, if P > AC why no entries?

The criticism of the Chicago school can be summed up in a few lines. First neither theory nor empirical studies say very much about the relationship, if any, between business size and cost. Second, in the absence of a convincing theory, the presumption should be that actual structures are efficient, barring the existence of artificial barriers to entry, erected and protected by governments.

5. Antitrust policies in the United States.

This section will discuss the development of antitrust with special emphasis on merger policy. It will review the legal framework, the role of the courts, of the Department of Justice as well as that of the Federal Trade Commission. In particular, it will focus on the Merger Guidelines issued by the two last-mentioned authorities. Some cases will be scrutinised in order to compare the policies pursued by the European Union with those adopted by the United States.

5.1 Historical Background, Legislation and the Goals of Antitrust. As was referred to in the introductory section of this paper, mergers were part and parcel of the second industrial revolution that took place in the United States during the last decades of the 19th century. The large industrial enterprise – a new phenomenon – was, however, received with mixed feelings, including suspicion and outright hostility, especially on the part of small-scale competitors who saw their very existence threatened by the emerging giants.[38] Thus, even though public opinion was not unfavourable to legal attempts to contain the power of the "monopolies", there was some hesitancy in Congress, because the potential benefits of large-scale production were also understood.[39] The first nation-wide antitrust law, Bill S. 1 – popularly known as the Sherman Act – was enacted in 1890. Its two substantive provisions, labelled by Martin as "deceptively simple", are as follows:

> Section 1. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal… Every person who shall make any contract or engage in any combination or conspiracy hereby declared to be illegal shall be deemed guilty of a misdemeanour…
>
> Section 2. Every person who shall monopolise, or attempt to monopolise, or combine or conspire with any other person or persons, to monopolise any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanour…[40]

This basic legislation was followed up twenty-four years later (in 1914) by two new acts, the Clayton Act and The Federal Trade Commission Act. One notable ambition of the Clayton Act was

> to prohibit certain trade practices … and thus to arrest the creation of trusts, conspiracies and monopolies in their *incipiency* and before consummation[41]

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[38] Cf. Chandler (1990) pp. 78-79
[39] Cf. Scherer and Ross (1990), p. 449
[40] Cf. Goldschmid et al. (1974) p. 441
[41] As quoted by Bork (1993) p. 47. Italics added. In Bork's view this incipiency approach came to have disastrous consequences. Cf. pp. 205-6 and the *Brown Shoe* case.

Leaving aside the stipulations on exclusive dealing contracts, requirement contracts, tying contracts and the like, the Clayton Act has this to say on mergers and acquisitions:

Section 7. That no corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital and no corporation subject to the jurisdiction of the Federal Trade Commission shall acquire the whole or any part of the assets of another corporation engaged also in commerce, where in any line of commerce in any section of the country, the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly.
No corporation shall acquire, directly or indirectly, the whole or any part of the stock or other share capital and no corporation subject to the jurisdiction of the Federal Trade Commission shall acquire the whole or any part of the assets of one or more corporations engaged in commerce, where in any line of commerce in any section of the country, the effect of such acquisition, of such stocks or assets, or the use of such stock by the voting or granting of proxies or otherwise, may be substantially to lessen competition, or to tend to create a monopoly.[42]

Alongside with the Department of Justice the Federal Trade Commission, established by the Federal Trade Commission Act, is charged with enforcing antitrust legislation.

If popular sentiments on monopolies were strong at the time of the inception of antitrust legislation, the exact goals of the Sherman Act and of the laws enacted later are not so easy to ascertain. Consider again figure 1. It stands out clearly that the monopolisation of a market previously under perfect competition affects two variables. The first one is the volume of production: it will fall and this change will give rise to a net welfare loss. The second one is a redistribution of income from consumers to producers. Since any divergence from competitive equilibrium at W entails a social welfare loss, the conclusion of economic theory ("monopoly – in this case – is bad because the sum of consumers' surplus and producers' surplus is reduced") as well as that of the law ("monopoly is bad because it restrains trade") go in the same direction. But what if – which often is the case – a merger results in cost reductions, i.e., improved internal efficiency? Figure 3[43] illustrates.

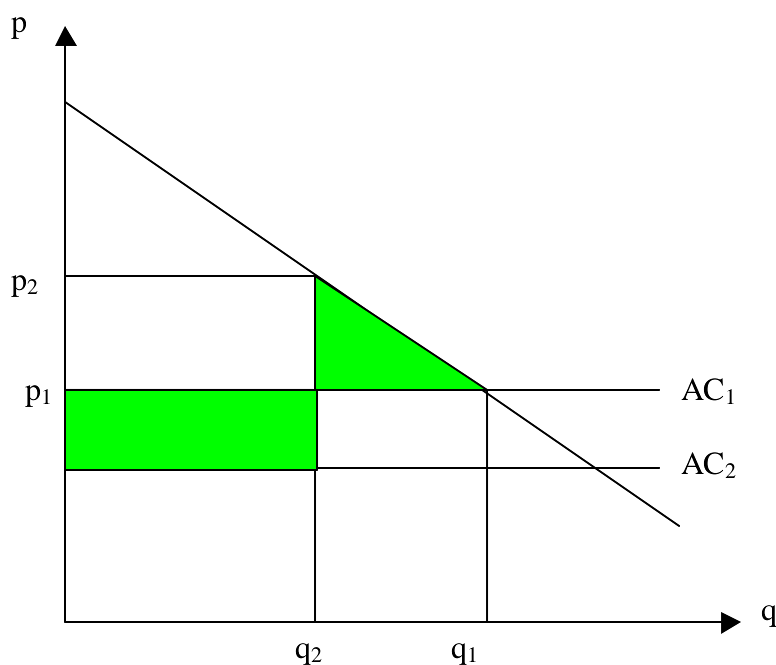

Figure 3

[42] As modified by the Celler – Kefauver Act. ibid. pp. 441-2
[43] Adopted from Bork (1993) who borrowed it from Williamson

Suppose that under competitive conditions price was p_1 and quantity q_1. Monopolisation results partly in a reduced output to q_2 and a price increase to p_2, partly in increased efficiency whereby average cost falls from AC_1 to AC_2. The effect of the changes in price and quantity is the dead-weight loss (shown by the shaded triangle). But there is also a positive effect (represented by the shaded rectangle) resulting from the gains in efficiency. As long as the area of the rectangle is smaller than that of the triangle, the previous conclusions apply. However, if it is the other way round, the interpretation is more troublesome. According to the strict prescriptions of Pareto one person's loss cannot be compensated by another person's gain. But this is not practical policy because such changes take place daily and governments cannot do much about them. Using Kaldor-Hicks type compensation criteria (i.e., a change being considered as an improvement if those who gain *could* compensate those who lose, even if such compensation never takes place), the economist would look favourably at the merger represented by figure 3. The issue, however, is how Congress in the United States looked at such outcomes in 1890 and how the courts evaluated practical cases later on.

Martin quotes several actors of the day. According to one quotation, Sherman himself would not condone the increase of the profit of the producer at the cost of the consumer (figure 1 case), and may be not even such cases where efficiency gains are entirely appropriated by producers.[44]

Other considerations, such as the access to markets by small-scale producers and the dispersal of power were also on the agenda. Martin refers to Scherer who is convinced that Congress viewed 'the diffusion and decentralisation of power as an end in itself'.[45] One member of the Senate at the time, Senator George Hoar, saw the monopolies as a 'menace to republican institutions'.[46] Also there were those who feared that unfair practices by the monopolies would shut out otherwise competitive small-scale producers from the markets. (Aren't we witnessing a delayed echo of that worry as we read about the recent judgement against Microsoft?) Martin arrives at the conclusion – which he also believes to be the mainstream view – that '…the Sherman Act had multiple goals, both economic and non-economic ones.[47]

Bork flatly refuses this view:

> The language of the antitrust statutes, their legislative histories, the major structural features of antitrust law, and considerations of the scope, nature, consistency, and ease of administration of the law all indicate that the law should be guided solely by the criterion of consumer welfare.[48]

Bork spares no pains to show that the only goal consistent with the objectives of the antitrust laws is the maximisation of consumer welfare. This is no easy task because there is no mention of consumer welfare in the substantive articles of the antitrust laws. (For that matter, these articles have nothing to say about any other goal either, be it the protection of the small-scale producer or the dispersal of power). Because Bork believes that some judges misconstrued the letters of the law, he himself tries to build up an interpretation of the intent of legislators with the antitrust laws.

[44] p. 47
[45] As quoted by Martin (1994) p. 49
[46] ibid.
[47] ibid. p. 47
[48] Bork (1993) p. 57

To begin with, he finds it unfortunate that the Sherman Act used the language of the common law, because 'there was no unitary body of common law doctrine that could give meaning to the statute' and, as a result, because it caused 'no end of confusion'.[49] However, in the original bill presented by Sherman, he (Sherman) wanted to ban practices that were designed to or would result in increased costs to the consumer.[50] Next, Bork goes on to discuss the intentions of the Clayton Act. The Clayton Act contrasts the two polar market forms: competition and monopoly. The problem is with the definition of competition. It cannot mean rivalry for its own sake, Bork argues, because it would 'require the destruction of all commercial contracts and obligations'. Nor will the economist's definition of perfect competition do because the inability of any single actor to influence prices, as such a definition requires, would lead to an atomistic and inefficient production structure. Competition identified as "fragmented industries and markets" – as it was done in the *Brown Shoe* case – won't do either because the concept is too vague. Thus, by elimination, Bork arrives at consumer welfare as the single relevant objective. Also, he argues, 'A *per se* rule against cartels is inconsistent with values other than consumer welfare'. Moreover, mergers are not banned *per se* because, unlike cartels, they have a potential to reduce the costs of production, which may result in increased consumer welfare.[51]

Needless to say, Bork's interpretation of either economic theory or the legal texts was not received by universal approval. Focussing on Bork's definition of "consumer welfare" which, expressed in terms of traditional neo-classical textbook language, is the sum of consumer surplus and producer surplus, Martin finds it 'best to avoid Bork's misleading terminology in a textbook.'[52] He also quotes the following passage from the March 1987 *National Association of Attorneys General Horizontal Merger Guidelines:*

> For the unwary Judge or practitioner stumbling upon this term it is important to understand … that 'consumer welfare', when used in this manner, *has nothing to do with the welfare of consumers*.[53]

Or maybe it has, after all. For the sake of convenience, model builders have mostly ignored the consumption of producers. Back in the 1960s, for example, it was explicitly assumed in some macroeconomic models that workers used all of their incomes for consumption, while capital incomes were saved in their entirety. However, other models took the opposite view: because profits would give rise to huge future consumption flows, they were given weights higher than those given to current consumption .[54] Even though Bork's approach may be contested – either on the grounds that it does not conform to the philosophy usually maintained in traditional textbooks or because it does not reflect the mainly implicit concern with income distribution – it can definitely not be rejected out of hand. "Producer surplus", i.e., company profit is either reinvested in productive activities, and in that case gives rise to future consumption streams, or distributed in the form of dividends to the owners of the firm's stockholders who may well consume at least a part of it. In our days "producers' surpluses" tend to accrue in growing proportions to pension funds, the dividends of which, in turn, represent higher and higher proportions of total current consumption. It is hard to see how neglecting such consumption streams could be justified. Also, stock ownership by employees is getting increasingly widespread. Although Martin finds the use of Bork's consumer welfare

[49] ibid. p. 20
[50] ibid. p. 62
[51] ibid. p. 67
[52] Martin (1994) p. 46
[53] ibid. Italics added.
[54] This was especially the case in the development-economics literature, which stressed the importance of increased savings and investments.

concept unsuitable for textbook use, while disapproving of income transfers from producers to consumers he nevertheless seems to agree that merger-induced efficiencies do pose a problem for antitrust. Moreover, he also has a suggestion as to what to do about it:

Plaintiffs in a merger case could be required to show that the market structure is such that merger may substantially to lessen competition. If they do not satisfy this requirement, the merger would be permitted.

If plaintiffs demonstrate that the merger is likely to maintain or increase market power, the burden of proof would shift to defendants. Under a dead-weight loss standard for antitrust, defendants would have to show substantial economies flowing from the merger.[55]

It appears that in our constantly changing societies, where the borderline between consumers and producers is getting more and more blurred, the last word has not yet been said on this issue.

5.2 Case Law and Merger Guidelines. Having reviewed the main theoretical controversies in interpreting the law let us see what happened with their application. One thing should be clearly stated at the outset: antitrust legislation as well as the application of the laws – and maybe even analysis – all may be affected by political considerations. Politicians, administrators and even economists with interventionist inclinations would prefer to define the market narrowly, mainly rely on structural indicators, mostly use demand-side substitutability criteria only and take a short-term view of the situation. Market liberals, on the other hand, would define the relevant market broadly, want to look at market conduct alongside with (or instead of) market structure, consider also supply-side substitutability and take a long-run view. No wonder then that antitrust policy in the US followed a cyclical pattern, albeit not necessarily alongside the republican – democratic divide.

Scherer and Ross[56] tell us that nothing much happened during the first fifteen years or so after the promulgation of the Sherman Act. Then, in 1904, the Supreme Court declared illegal the merger between Northern Pacific and Great Northern railroads. In 1911 two rulings strengthened the position of the activist line: the courts ordered the Standard Oil holding company to be dissolved and the American Tobacco Company to be 'split into sixteen pieces'[57]. The 1920s signalled a reversal of these policies. This was demonstrated by the US Steel case. The government brought suit against the company (which was formed through a 'billion-dollar merger in 1901'[58]) in 1911 and wanted to have it broken up. The case dragged on until 1920 when the Supreme Court ruled in favour of US Steel. Nobody was in doubt that the company dominated the market. However, since the company had been nice to both customers and competitors – its CEO regularly hosting other company leaders for dinner during a four-year period (the famous Gary dinners where they agreed on prices high enough to allow competitors to thrive) – the Court ruled that

the law does not make mere size an offence or the existence of unexerted power an offence. It … requires overt acts … It does not compel competition nor require all that is possible[59]

This was a major setback for the structuralist view, further reinforced by the International Harvester Company case in 1925 in which the government was defeated again and on the

[55] ibid. p. 316
[56] Scherer – Ross (1990) chapters 5 and 12
[57] ibid. p. 451
[58] ibid. p. 452
[59] ibid. p. 452 as quoted by Scherer and Ross

same grounds as were adduced in the US Steel case: size without illegal conduct did not constitute a valid case.

The tide turned again after the election of F. D. Roosevelt to President. As Scherer and Ross put it: the administration '"packed" the courts with jurists more inclined to support interventions.' The Alcoa (the Aluminium Company of America) judgement is interesting because, having to choose from among three possible market definitions, the court selected the one least favourable to the company. With the outcome of the 1962 Brown Shoe case the protagonists of the structural approach could feel firmly in command. The case includes a number of interesting details that merit special attention. Primarily because it was the first interpretation of Section 7 of the Clayton Act, as amended by the Celler-Kefauver Act, whereby considerable efforts were made to find out what Congress' intentions were with the law[60]. Second, because it had a bearing on all three forms of merger: horizontal, vertical and conglomerate. Third, it made an attempt to more rigorous definitions of the concepts of relevant product and geographic markets. Also, it gave rise to a considerable controversy as a result of its reading of tendencies toward increasing market concentration, which it attempted to nip in the bud.

In 1956 the Brown Shoe Company, mainly a shoe manufacturer but also owning distribution outlets, merged with the G. R. Kinney Company, mainly a distributor but also owning some manufacturing facilities. Again, the definition of the relevant product and geographic markets and the merged entity's market share – calculated on the basis of those definitions – constitute the core of the case. The Court defined the market narrowly.

Because neither the intent of Congress, nor the necessary definitions are contained by the text of the law, the Court set out to give the details. It identified three themes: fear of 'a rising tide of economic concentration' in the United States; the desirability of "local control" (whatever it might mean); and the protection of small businesses. Since the original Section 7 of the Clayton Act only banned stock acquisitions, but not the direct purchase of assets of other firms, it did not prove an effective instrument to prevent the "lessening of competition" resulting from mergers. One goal of the revised version of Section 7 was to bar this escape route. More specifically, and according to the reading of the Court, Congress intended the law to cover both asset and stock mergers; to cover both horizontal, vertical and conglomerate mergers; to control incipient lessenings of competition; standards under the Clayton Act to be more severe than those under the Sherman Act. On the other hand, Congress did not intend to prohibit competitive mergers[61].

In tackling the horizontal merger part of the case the Court opted for a sophisticated product market definition based on cross elasticities of demand. Recognising, however, that reliable cross-elasticity estimates are difficult to produce, it chose instead to delimit "well-defined submarkets" which "constitute product markets for antitrust purposes". These were to be defined by using practical indicia such as

> industry or public recognition of the submarket as a separate entity, the product's peculiar characteristics and uses … distinct consumers, distinct prices, sensitivity to price changes, and specialised vendors.[62]

As to the effects of the merger the Court defined four standards against which to evaluate whether the merger would or would not lessen competition. These standards were market share, the potential of the post-merger firm to engage in anti-competitive strategies, "the his-

[60] Martin (1994) p. 294 ff. and Bork (1993) chapter 9
[61] Cf. Martin(1994) pp. 294-5
[62] ibid. p 295

tory of the tendency toward concentration in the industry" and possible non-economic goals such as the existence of locally owned small business.[63] As to market shares it stated

> If a merger achieving 5% control were now approved, we might be required to approve future merger efforts by Brown's competitors seeking similar market shares[64]

The Court was no less lenient in applying the second standard:

> Testimony in the record … demonstrates that the large chains can set and alter styles in footwear to an extent that renders the independents unable to maintain competitive inventories.[65]

In sum, the Court disallowed the merger. It used a rather arbitrary definition for geographic market, it did not consider ease of entry and other possible supply-side effects.

The above two quotations – relating to market share and barriers to entry – reflect the horizontal aspects of the merger. In addition, the Court disapproved also of its vertical aspects:

> The primary vice of a vertical merger or other arrangement tying a customer to a supplier is that, by foreclosing the competitors of either party from a segment of the market otherwise open to them, the arrangement may act as a "clog on competition" … which "deprive[s] … rivals of a fair opportunity to compete.[66]

The idea of "foreclosure" is at the heart of the objections against vertical mergers. In the Brown-Shoe context foreclosure would mean that, after the merger, G. R. Kinney would primarily or exclusively sell shoes manufactured by Brown, thereby "fore-closing", partially or wholly, other manufacturers from selling through Kinney. The Court specified three standards against which to judge vertical mergers: the share of the market foreclosed, the nature and purpose of the agreement and any possible trend toward vertical integration in the market.[67] The Court ruled against the Brown Shoe Company on all three counts. Moreover, the Court interpreted the intentions of Congress also to include the preservation of non-economic values:

> Congress was desirous of preventing the formation of further oligopolies with their attendant adverse effects upon local control of industry and small business. When an industry was composed of numerous independent units, Congress appeared anxious to preserve this structure.[68]

Martin refers to three additional circumstances that may result from vertical mergers and which could facilitate oligopolistic behaviour. Vertical integration may raise the cost of entry to would-be competitors because of higher capital requirements. Vertical integration facilitates product differentiation which, he adds, 'will often serve to raise rivals' costs.' Lastly, a merger may facilitate oligopolistic co-ordination at some stage in the production chain.

Martin labels the treatment of conglomerate mergers under Clayton 7 as a '…"hodge-podge", reflecting the cases that have come before the courts.'[69] "Conglomerate mergers" are not easily defined. Some would say they are mergers that neither are horizontal, nor vertical. Bork

[63] ibid. pp. 296-7
[64] As quoted by Martin, p. 296
[65] ibid.
[66] As quoted by Martin p. 306
[67] ibid. p. 306
[68] As quoted by Martin. ibid. p. 307
[69] ibid. p. 310

would rather see a classification 'according to theories of injury to competition'[70]. What transpires from case law[71] is that they may be deemed illegal if they strengthen the financial power of (one of) the parties involved (the "deep-pocket" argument), raise the barriers to entry, eliminate potential competition or create (the possibility of) reciprocity, which is the equivalent of trade diversion in the theory of customs unions. In practical terms, reciprocity arises when the merged company asks its suppliers to buy from the company it just has acquired. This implies trade diversion – and would be consequently classified as welfare-reducing – only if the companies involved would rather go on buying from their old suppliers. There is also the case picturesquely described as "toehold entry", by which is meant the acquisition by a large company of a small firm. Such an acquisition will supposedly increase competition in distinction from mergers between large companies.

Bork devotes an entire chapter[72]to the *Brown Shoe* decision, which he considers one of the '… worst antitrust essay[s] ever written.'[73] Yet, using again Bork's description, the case became a "trend setter".[74] First of all, Bork objects to the general approach of the Court insofar as it took great pains to interpret Congress' intentions while ignoring the letter of the law which, in his interpretation, only condemns those mergers that substantially lessen competition and have a tendency to create monopoly. On the horizontal side, the Court would not condone a market share of 5 percent, warning for developments where other companies would seek similar shares. Not surprisingly, Bork finds it absurd to classify a (hypothetical or would-be) market with twenty companies, each having a market share of 5 percent, as oligopolistic.

Neither would Bork go along with the judgement on the vertical aspects of the merger implying first, that there was a trend toward vertical integration in the shoe industry in the United States and second, that Brown's objective was to "force" its shoes on its subsidiaries. In Bork's view the fact that '…the thirteen largest shoe manufacturers… operated 21 percent of the census shoe stores' didn't constitute a trend not least because the sales of these census shoe stores only comprised a third of national sales.
Also, Bork found another part of the Court's decision self-contradictory. The Court argued, on one hand, that Brown would *force* the subsidiaries to a preferential treatment of its shoes. On the other it objected to the merger because, by eliminating one link (the wholesaler) in the production-distribution chain, Kinney could sell shoes at a lower price than could its independent competitors.

Let us round off this brief review of American antitrust policies with a glance at the variety of Merger Guidelines, issued by the US Department of Justice (USDJ), jointly by that department and the Federal Trade Commission (FTC) and also by the National Association of Attorneys General (NAAG)[75]. The first Merger Guidelines appeared in 1968 and were issued by the USDJ. That document reflected case law as it had evolved during recent decades as well as the analytic approach of Bain and his disciples: markets were classified highly concentrated if the joint market share of the four largest firms exceeded 75 per cent. In such cases horizontal mergers involving firms with as low market shares as 4 per cent would be challenged. A somewhat more lenient approach was used in less concentrated markets. Standards concern-

[70] Bork (1993) p. 246
[71] ibid. p. 249 and Martin pp. 310-13
[72] ibid. chapter 9
[73] ibid. p. 210
[74] ibid.
[75] Enforcement of the antitrust laws is in the hands of the Department of Justice and the FTC. In addition, state attorneys-general have the right to sue on behalf of consumers. Cf Martin (1994) pp. 43-44 and chapter 10 for the paragraphs that follow.

ing vertical mergers followed the "foreclosure" philosophy already discussed above and those about conglomerate mergers involved the removal of potential entrants, creation of advertising advantages and reciprocity.

The 1982 Guidelines included two novelties. First, a genuine effort was made to define the market on the basis of substitutability: what would happen on the demand as well as on the supply side if, as a result of a merger, price would increase by 5 per cent? Unfortunately, the practical criteria suggested did not match the theoretical sophistication of the principle. Second, the four-firm concentration ratio was replaced by the Herfindahl index to measure market concentration:

$$H = \Sigma(s_i)^2$$

where s_i denotes the share of the ith firm in the industry. The value of H may take any value between 0 and 1 if s_i is defined as a fraction or between 0 and 10,000 if it is expressed in percentage terms. For example, if an industry consists of twenty equally-sized firms each having a 5 per-cent share of the market, H will be equal to either 0.05 or 500. A value of 0 would signify perfect competition while a value of 1 or 10,000 would indicate a monopoly. Using percentage figures, the 1982 Guidelines defined industries as highly concentrated if $H \geq 1800$, while industries with $1000 \leq H < 1800$ were labelled as moderately concentrated. In highly concentrated industries the Department of Justice would challenge mergers that would result in an increase of H by 100 or more. Comparing the Guidelines of 1968 with the Guidelines of 1982, Martin comes to the conclusion that the latter were more lenient on mergers than were the former.[76]

New Guidelines were issued in 1984 according to which index mathematics would not be enough to challenge a merger. Furthermore, in contemplating to challenge or not to challenge a merger, the Department of Justice would consider the possible efficiency aspects of a merger. This was a novelty reflecting the fact that a conservative republican sat in the White House. The 1987 Horizontal Merger Guidelines of the National Association of the Attorneys General (NAAG), however, mirrored a different attitude, suggesting that

> the Supreme Court has clearly ruled that any conflict between the goal of preventing anticompetitive mergers and that of increasing efficiency must be resolved in favour of the former explicit and predominant concern of the Congress [77]

6. Merger Policy in the European Union: Laws, Commission Documents and Early Cases

> DETERMINED to lay the foundations of an ever closer union among the peoples of Europe,
> RESOLVED to ensure the economic and social progress of their countries by common action to eliminate the barriers which divide Europe…

Thus begins the solemn text of the Treaty of Rome. Already the first two paragraphs of the Preamble of the Treaty strike the note, which is to become the guiding principle not only of the subsequent text of the treaty itself, but also of the actual behaviour of the institutions of

[76] ibid pp. 319-20
[77] ibid. pp. 322-23

the Common Market.[78] The quotation above spells out two basic principles: integration and the social responsibility of European governments as well as of the institutions of the Community. Even though the economist's generally justified obsession with efficiency is rather well accommodated in the *acquis communautaire*, professionals are sometimes unhappy with the social ambitions of the Union (as they are manifested in court rulings), because of the insecurity they create as to the interpretation of legal texts. (One should keep in mind, as was amply discussed in the preceding section, that even in the United States Supreme Court decisions on matters of antitrust often reflect European-style social considerations.)

6.1 Preliminaries. The (latest updated version of the) Treaty of Rome is the principal basis of decision making in the European Union. The general direction of competition policy is already given in article 3, which says that

> the activities of the Community shall include … a system ensuring that competition in the internal market is not distorted

The origins of merger policy are to be sought in article 82(86),[79] although the Community Court has also taken into consideration article 81(85), which defines the limits of co-operation among firms. During the three decades that followed the launching of the Common Market, article 82(86) proved inadequate. In 1989 it was supplemented by Council Regulation (EEC) 4064/89 of 21 December 1989 on the control of concentrations between undertakings (OJ 1990 L257/14) and amended by Council Regulation (EC) 1310/97 of 30 June 1997 (OJ L180, 9 July 1997). Other documents relating to merger regulation are Commission notices on full-function joint ventures (OJ 1998 C66/01), the concept of concentration (OJ 1998 C66/02), the concept of undertakings concerned (OJ 1998 C66/03), the calculation of turnover (OJ 1998 C66/01) and the definition of relevant market (OJ 1997 C372/03). Reference will also be made to one document still in the pipeline: White Paper on Modernisation of the rules implementing Articles 85 and 86 of the EC Treaty.

Legislation, especially in an area characterised by irreconcilable differences of opinion, has to be supplemented first by court rulings and then by new legislation. All along the European Court has been an active participant in the process of shaping the future of the Community and the strengthening of economic ties between member states. Case law is, therefore, an indispensable source of studies on merger policy.

6.2 The Abuse of a Dominant Position. The two articles primarily referred to in matters of competition policy are articles 81(85) and 82(86). Article 81(85) is concerned with collusion stipulating that

> all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the common market [shall be prohibited]

Article 82(86) is, however, the natural starting point to discuss merger regulation. It provides:

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

[78]The terms "Common Market", "(European) Community" and "(European) Union" are used interchangeably.
[79] The numbers refer to the latest updated version of the Treaty. The original article numbers are in brackets.

(b) limiting production, markets or technical development to the prejudice of consumers;
(c) applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;
(d) making the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts.

What is a market? What is a dominant position? What is an abuse of a dominant position? How can the article be made use of to tell whether an intended merger is or is not compatible with the common market? And if incompatible, would it make economic sense to prevent the merger? These questions demanded answers that only the Community Court could deliver through its rulings. Korah makes the remark that the Treaty was influenced by the structure-conduct-performance paradigm and by the current views on contestable markets[80]. Since post-merger market conduct is hard to predict, such an interpretation seems justified even though there is no mention of "structure" in article 82(86).

In *Continental Can*[81] the Court filled in some of the blanks. Continental Can Company Inc. is an American firm manufacturing light-metal tins for the packaging of meat, fish, seafood, etc. Through its European subsidiary Europemballage Corporation it had acquired controlling interest in Thomassen & Drijfer Verblifa N V. In its decision of 9 December 1971 The European Commission found the acquisition to be incompatible with the Common Market on the ground that Continental had infringed article 82(86) of the EEC Treaty. Continental appealed to the Community Court, asking for the annulment of the Commission's decision. The judgement of the Court was delivered on 21 February 1973. Four issues stand out clearly. First of all, the Court made it clear that articles 81(85) and 82(86) should be considered jointly and with the spirit of the Treaty in mind:

Articles 85[81] and 86[82] seek to achieve the same aim on different levels, viz. the maintenance of effective competition within the Common Market. The restraint of competition which is prohibited if it is the result of behaviour falling under article 85 cannot become permissible by the fact that such behaviour succeeds under the influence of a dominant undertaking and results in the merger of the undertakings concerned.

Secondly, the term "structure" is used explicitly, implying that attempting the attainment of certain structures indicate an abuse of a dominant position:

Article 86[82] is not only aimed at practices which may cause damage to consumers directly, but also at those which are detrimental to them through their impact on an effective competition *structure* … Abuse may therefore occur if an undertaking in a dominant position strengthens such position in such a way that the degree of dominance reached substantially fetters competition, i.e., that only undertakings remain in the market whose behaviour depends on the dominant one.[82]

It is worth while to note that, judging from the quotation above, the Court, by focussing on the pattern of interdependence of the behaviour of market participants, accepted the implications of the dominant firm theory as outlined in section 2 above. The third important point emphasised by the Court is the significance of clearly defining what the relevant market(s) is (are).

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[80] Korah (1997), p. 77
[81] Europemballage Corporation and Continental Can Company Inc. v. Commission of the European Communities. Case 6-72
[82] ibid.; emphasise added

The definition of the relevant market is of essential significance … In order to be regarded as constituting a distinct market, the products in question must be individualised … by particular characteristics of production which make them specifically suitable for this purpose.[83]

The Commission had identified three relevant markets. In the view of the Court, however, the Commission did not explain well enough in what respects the three markets differed, it did not prove that the merged entity was dominant. More important from our point of view are the criteria for a dominant position specified by the Court:

a distinction has to be made … between four essential elements:
(a) the present market share of the combined undertakings in the products concerned,
(b) the relative proportions of the new unit created by the merger compared to the size of potential competitors in this market,
(c) the economic power of the purchasers vis-a-vis that of the new unit, and
(d) the potential competition of either the manufacturers of the same products, who are situated in geographically distant markets, or of other products made by manufacturers situated in the Common Market.[84]

Item (d) of the quotation above points to the fourth important issue in determining whether or not a dominant position is at hand, viz. the existence of potential competition. Some critics argue that potential competition is not sufficiently taken care of by the decisions of the Commission and we will comment on the issue in the last section. For the moment it suffices to note that by the Continental-Can case the Court drew up the outlines and specified most of the essential elements of the Community's policy towards mergers. Still, there were doubts. Korah remarks[85] that the powers of the Commission remained unclear, which explains why the Commission preferred to interfere informally after Continental Can. Meanwhile, pressure was mounting, especially within the Commission, to adopt more explicit guidelines for merger control. At long last this was done in December 1989 when Council Regulation (EEC) 4064/89[86] was adopted. Eight years later it was amended by Council Regulation (EC) 1310/97. Also in 1997 guidelines on the definition of relevant markets were published.

6.3 Council Regulations and Commission Notices. Council Regulation (EEC) 4064/89 as amended by Council Regulation (EC) 1310/97 constitutes the basis of the Commission's merger policy.[87] In order to clarify its interpretation of this basic document the Commission has issued a number of Notices, notably on *relevant markets* (1997) *full-function joint ventures* (1998), the concepts of *concentration* (1998) and of *undertakings concerned* (1998), as well as on the *calculation of turnover* (1998). These documents regulate issues of substance as well as procedural matters. In what follows attention will mainly be focussed on the former. The key concepts to be dealt with are concentration, community dimension (threshold values) and notification.

6.3.1 Concentrations.. Recital 23 of the MR document suggests that '…only operations bringing about a lasting change in the structure of the undertakings concerned;' are to be treated as concentrations. Such concentrations arise as a result of mergers or of changes of control. Article 2(2) provides that concentrations which do not create or strengthen

[83] ibid.
[84] ibid.
[85] Korah (1997) p. 262
[86] In the following Regulation 4064/89
[87] For brevity the document presently in force will be referred to as MR or MR document (MR for Merger Regulation)

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 compatible with the common market while, according to the stipulation of Article 2(3), concentrations with the opposite effect will be declared incompatible with it. In its endeavour to establish whether or not a concentration is compatible with the common market the Commission has to consider a number of circumstances. The most important ones are: 'the need to preserve and develop competition', 'the structure of all markets concerned', 'actual and potential competition', the market position as well as the 'economic and financial power' of the undertakings concerned, 'the opportunities available to suppliers and users, barriers to entry as well as the interests of intermediate and final consumers. Many of the critical remarks already made in relation to antitrust policies in the United States are also applicable in the European context. It is worth noting, for example, that the MR document refers explicitly to suppliers and users whose interests, in addition to those of consumers, must be taken into account. According to Article 3

A concentration shall be deemed to arise where:
(a) two or more previously independent undertakings merge, or
(b) – one or more persons already controlling at least one undertaking, or
– one or more undertakings
acquire … direct or indirect control of the whole or parts of one or more undertakings.

Acquisition of control may take place by way of the purchase of securities and/or assets, by contract or by any other means. Cook and Kerse observe[88] that the concept of *merger* is not clearly defined in the document. On the other hand, considerable attention is paid to the concept of *control*. Control is defined to imply the *possibility* of exercising *decisive influence* on an undertaking (the key concepts italicised). Control may be direct or indirect, sole or joint, legal or *de facto*. It has to be stable, i.e., the likelihood of changing majorities may rule out the existence of control.

6.3.2 Community dimension. According to Article 1(2) of the original document

a concentration has a Community dimension where;
(a) the aggregate world-wide turnover of all the undertakings concerned is more than ECU 5 000 million, and
(b) the aggregate Community-wide turnover of each of at least two of the undertakings concerned is more than ECU 250 million,
unless each the undertakings concerned achieves more than two-thirds of its aggregate Community-wide turnover within one and the same Member State.

The amendment of paragraph 3 of the original document provides that a concentration also has Community dimension if, even though it does not meet the threshold,

(a) the combined aggregate world-wide turnover of all the undertakings concerned is more than ECU 2 500 million;
(b) in each of at least three Member States the combined aggregate turnover of all the undertakings concerned is more than ECU 100 million;
(c) in each of at least three Member States included for the the purpose of point (b) the aggregate turnover of each of at least two of the undertakings concerned is more than ECU 25 million; and
(d) the aggregate Community-wide turnover of each of at least two of the undertakings concerned is more than ECU 100 million,
unless each the undertakings concerned achieves more than two-thirds of its aggregate Community-wide turnover within one and the same Member State.

[88] ibid. p. 27

6.3.3 Notification. Even though notification is a procedural matter, a few comments are in place. In terms of article 4

> Concentrations with a Community dimension … shall be notified to the Commission not more than one week after the conclusion of the agreement, or the announcement of the public bid, or the acquisition of a controlling interest.

Notifications have also an interest from another point of view: they give the notifying actors an opportunity to explain why, in their opinion, the concentration is compatible with the common market.

7. Implementation of Council Regulation 4064/89

Let us reiterate the key words of European competition policy: concentration, control, community dimension, relevant product and geographic markets, market structure, market power, financial power, dominance and compatibility with the common market. Briefly, concentrations result from mergers or acquisition of control,[89] while "community dimension" is defined in terms of threshold values.[90] "Concentrations" and "community dimension" are legal definitions and, even though some observers would contest the threshold values, finding them too low or too high, no further comments are needed in the present context.

7.1 The Definition of a Relevant Market. The key issue in any concentration case is what is the relevant market. In *Continental Can* the Court blamed the Commission for not having given proper consideration to the relevant aspects of the problem. Neither Regulation 4064/89 nor Regulation 1310/97 contain much on the subject. Those interested had to have recourse to case law. Finally in 1997 the Commission issued the *Commission Notice on the Definition of the Relevant Market for the Purposes of Community Competition Law* (hereafter Notice on the Relevant Market). Form CO too contains definitions on relevant product and geographic markets (the same ones as those in the Notice). Since one of the main objectives of the competition policy of the European Union is to prevent firms from exercising market power, defining the relevant market is tantamount to identifying those competitors who are in a position to constrain the behaviour of the concentrated undertaking. The relevant market is understood to have two major dimensions: the relevant product market and relevant geographic market. Substitutability on the part of users is the main criterion to define the relevant product market, while the relevant geographic market is defined as

> the area …in which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighbouring areas because the conditions of competition are appreciable different in those areas[91]

The quotation above is a reminder of the embarrassing fact that practical market definitions seldom – if ever – live up to the requirements of either theoretical rigour or the rule of law. The absence of a practically applicable, while at the same time theoretically satisfactory market concept may be the weakest spot of competition policy, in Europe as well as in the United States. The best interpretation of the somewhat cryptic notion of "homogeneous conditions" seems to be that areas where sellers have the capacity to charge different prices for the same product without running the risk of evoking arbitrage (or, in the language of the document,

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[89] Council Regulation (EEC) 4064/89 (as amended by Council Regulation (EC) 1310/97), Article 3(1)
[90] See Section 6.3 above.
[91] Commission Notice on the Definition of the Relevant Market for the Purposes of Community Competition Law, p. 2

where a firm can "behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers") constitute a separate geographic market.

Under the heading of 'Basic principles for market definition' the document considers competitive constraints, which are identified as demand substitution, supply substitution and potential competition. Demand substitution is singled out as 'the most immediate and effective disciplinary force on the suppliers of a given product'. In actual fact the market definition focuses strongly on substitutability on the demand side by inquiring what would happen to demand in the case of a small (up to 10 %) hypothetical increase in the price (the SNIP test). The document also makes an additional remark:

> Generally, and in particular for the analysis of merger cases, the price to take into account will be the prevailing market price. This might be the case where the prevailing price has been determined in the absence of sufficient competition. In particular for investigations of abuses of dominant positions, the fact that the prevailing price might already have been substantially increased will be taken into account[92]

Substitutability on the supply side is only considered if it can take place in the short run, at low costs and without significant risks. Lastly, potential competition is only considered in exceptional cases and even then only when actual or potential dominance is to be evaluated.[93] Much of the rest of the document discusses the gathering of evidence, the possible use of econometric studies and other information to be used in defining the relevant market. It is worth while to make note of the list of what the document considers as "barriers to substitution" because some of those items figure prominently in the cases, which will be quoted in the following section:

> These barriers or obstacles might have a wide range of origins, and in its decisions, the Commission has been confronted with regulatory barriers or other forms of State intervention, constraints arising in downstream markets, need to incur specific capital investment or loss in current output in order to switch to alternative inputs, the location of customers, learning and human capital investment, retooling costs and other investments, uncertainty about quality and reputation of unknown supliers, and others.[94]

Other relevant costs mentioned are transport costs, access to distribution channels, tariffs and quotas. Apparently, the document also sees some basic demand characteristics as obstacles to substitution:

> Factors such as national preferences or preferences for national brands, language, culture and life style, and the need for a local presence have a strong potential to limit the geographic scope of competition.

As suggested above, the SNIP test would give a good guidance as to demand-side substitutability. However, sufficient and reliable data are seldom available. Therefore, the Commission often considers other types of information. One such type is the functionality and physical characteristics of the product, although such information also has its limitations. In *Nestlé/Perrier* the Commission found that bottled source water and soft drinks didn't belong to the same relevant product market, since producers of the two kinds of drinks could act independently of each other with respect to price setting. Customer surveys is yet another type of information made use of by the Commission even though such surveys can be rather unreliable and lack empirical relevance.

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[92] ibid. p. 4
[93] See the remark of Cook and Kerse (2000) p. 175 on the Mannesman/Vallourec/Ilva case
[94] ibid. p. 8

When it comes to the delimitation of geographic markets the Commission stipulates "sufficiently homogeneous conditions" as its main criterion. The dimensions of such conditions are described in terms of market shares, supplier-customer relationships, demand trends and prices as well as distribution channels. Cook and Kerse have found clear indications that "In the food, retailing and distribution sectors generally the tendency is to define markets as national or regional"[95].

Another dimension of the homogeneity test is foreign trade patterns. The antitrust authorities in the United States use the Elzinga – Hogarty test in market definitions. This test says that if either exports or imports exceed 10 per cent in either production or consumption, the territories involved constitute a relevant geographic market. In its definition the Commission requires the presence of two-way trade. Even though, in *Mannesmann/Vallourec/Ilva*, the Commission found that Western Europe and Japan constituted separate geographic markets for steel because of substantial price differences, it did consider potential competition from Japan as a constraining factor.[96]

Price movements and market shares figure also prominently in the Commission's catalogue of factors determining the extent of geographic markets. The Commission takes it as indicative of the same relevant market when price movements are positively correlated. This was demonstrated in the *Pilkington-Techint/SIV* case.[97] On the other hand, the Commission sees wide disparities in market shares in different and in particular neighbouring countries as evidence of separate geographic markets. This is clearly indicated by the *Volvo/Scania* case.[98]

Customer preference, transport costs, the impact of public procurement rules and other regulatory factors are also taken into account in the Commission's definitions.

7.2 The Compatibility Test. Having defined the relevant product and geographic markets, the competition authorities of the European Union have to determine whether a proposed concentration is or is not compatible with the common market. Following Article 2(2) and 2(3) this should be a two-step procedure. First it is to be established whether the merger would create or strengthen a dominant position. The next task is then to find out whether the freshly created or an already existing but strengthened dominance will or will not significantly impede effective competition.

7.2.1 Creating or Strengthening a Dominant position. Even though Article 82(86) of the Treaty of Rome talks about an abuse by *one or more* undertakings of a dominant position, for a rather long time single-firm dominance was taken to be the rule. In *Kali und Salz* the European Court ruled that the Regulation also applied to collective dominance, where "collective dominance" refers to oligopolistic market structures.[99] To find out whether a dominant position has been created or strengthened, the Commission takes into account a number of factors, which, however, differ somewhat as between single-firm and collective dominance. Article 2(1)(a) and (b) provide the guidelines:

Concentrations within the scope of this Regulation shall be appraised in accordance with the following provisions with a view to establishing whether or not they are compatible with the common market. In making this appraisal, the Commission shall take into account:

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[95] ibid. p. 140
[96] ibid. p. 141
[97] ibid. p. 143
[98] Cf. the following section.
[99] Cf. Cook and Kerse ibid. p. 132 and pp. 168 –175 for a detailed discussion of collective dominance.

(a) the need to maintain and develop effective competition within the common market in view of, among other things, the structure of all the markets concerned and the actual or potential competition from undertakings located either within or outwith the Community;

(b) the market position of the undertakings concerned and their economic and financial power, the alternatives available to suppliers and users, their access to supplies or markets, any legal or other barriers to entry, supply and demand trends for the relevant goods and services, the interests of intermediate and ultimate consumers, and the development of technical and economic progress provided that it is to consumers' advantage and does not form an obstacle to competition.

In the establishment of dominance market share is always a principal object of scrutiny. Quoting from the tenth competition report of the Commission, Cook and Kerse report that '"A dominant position can generally be said to exist once a market share in the order of 40 to 45 per cent is reached."' But, such a position may also exit with a market share as low as 20 per cent. On the other hand, market share in itself is not enough to establish dominance. Growth, innovation and technological change (as in *American Cyanamid/Shell*), expiry of patent rights (*Ciba-Geigy/Sandoz*) or the presence of active competitors (*Tetra Pak/Alfa Laval*) are mitigating circumstances.

Establishing collective dominance is still harder. Cook and Kerse reproduce the list of characteristics identified by the Commission:

high concentration; homogeneous products; maturity (i.e. low potential for destabilising innovation); transparency (of prices and capacity); stable demand and modest growth; high barriers to entry and growth; absence of buyer power; and symmetry of market shares and cost structures.[100]

It seems to be too early as yet to judge how far the Commission will be willing or able to push the possible limits of its interpretation of the Court's ruling on collective dominance. In *Gencor v. Commission* the Court of First Instance declared:

there is no reason … to exclude from the notion of economic links the relationship of interdependence existing between the parties to a tight oligopoly … [where the] parties are in a position to anticipate one another's behaviour … In such a context, each trader is aware that highly competitive action on its part … would provoke identical action by others, so that it would derive no benefit from its initiative.[101]

The judgement could have been taken by the Commission as a go-ahead for preventive action whenever the structural characteristics of a (homogeneous?) oligopoly are at hand. Apparently, the Commission did not feel at liberty to draw such a far-reaching conclusion. In *Price Waterhouse/Coopers & Lybrand,* a merger case involving two of the world's biggest accountancy firms, the Commission opted for clearance suggesting that with more than three or four actors interdependence was so complex that enduring uncompetitive stability could not exist.[102] In summing up the current position, Cook and Kerse find that, while recognising that cases of collective dominance were covered by the Regulation, in Kali und Salz the Court set

a demanding but imprecisely defined standard of proof to establish collective dominance…There is here a real need for guidelines…Indeed it is understood that the Commission intends to publish a list of characteristics which it regards as predisposing a market to oligopolistic behaviour[103]

[100] ibid. p.171
[101] As quoted by Cook and Kerse, ibid. p. 169
[102] ibid. p. 172.
[103] ibid. p. 170

Once a creation or strengthening of a dominant position is identified, it has to be established whether, as a result, "effective competition would be significantly impeded in the common market or a substantial part of it".[104] The economist's definition of efficiency is, as we have seen above, consists of two parts: efficiency on firm level and market efficiency. Figure 3 above indicates that conflicts may arise between these two requirements. The test proposed by the Chicago school is then to check whether consumer surplus – regardless of any redistribution of income – has risen or not. The Commission has chosen not to bother too much about improvements in the internal efficiency in the undertakings concerned. It has been focussing rather one-sidedly on structural indicators on the basis of which conclusions are drawn as to the likely performance of post-merger markets. Cook and Kerse remark that ' Too much forensic weight should not … be attached to the requirement.'[105] In practice the really decisive influence seems to be the delimitation of relevant markets. Then the relative market shares of competitors, the nature and extent of barriers to entry and the economic and financial power of the actors complement the analysis.

7.3 *Is the Relevant Market Relevant? The Volvo – Scania Debacle*. A recent case, which duly reflects the Commission's philosophy on market dominance as well as the controversies provoked by its decisions, is the abortive merger between the two Swedish giants in the manufacturing of heavy-duty vehicles. Let us first recapitulate the facts[106].

On 22 September 1999 AB Volvo notified the Commission about its intention to acquire control of the whole of AB Scania. Both companies are registered in Sweden. Volvo had recently sold its car production business to Ford and wanted to expand its core business, which included the manufacturing of medium-heavy as well as heavy trucks and buses, in addition to some other activities not relevant to the present case. Also producing trucks and buses, Scania is Volvo's main – the Commission thinks only real – competitor on the Swedish market as well as its principal competitor on some other markets, notably in the Nordic countries. Consequently, it was no surprise that, in its 15 March 2000 decision, the Commission declared Volvo's acquisition of Scania incompatible with the common market and the functioning of the EEA Agreement. No surprise, but was it right?

The decision stirred up a considerable quantity of political dust in Sweden. The government was said to have pleaded with the Commission for an understanding of a small country's right to preserve its position as a leading industrial nation. Several newspapers wondered what Commissioner Monti would have done had Fiat been involved in a similar operation. And local politicians in Gothenburg – the city where Volvo's headquarters is located – were asking themselves whether they had misunderstood all that about a Europe-wide market.

Following its usual procedures the Commission identified product markets and geographic markets. The two main product groups, trucks and buses, were divided into sub-markets with only limited substitutability between themselves. Thus, the truck market was divided into light-duty (below 5 tonnes), medium-duty (5-16 tonnes) and heavy-duty (above 16 tonnes) segments while the market for buses and coaches was divided into markets for city buses, inter-city buses and touring coaches.

Because the same principles and techniques are applied to the analysis of all submarkets, attention will be concentrated on the market for heavy-duty trucks in Sweden. Why is the mar-

[104] ibid. p. 128
[105] ibid. p. 152
[106] Volvo/Scania: Case No COMP/M.1672 (internet version)

ket for trucks over 16 tonnes a separate market? First, because the technical configurations are different: construction is more sophisticated, they carry goods of considerable weight over long distances, and they require higher durability. For these reasons, heavy- and medium-duty trucks are not considered as substitutes on the demand side. Both Volvo and Scania produce this type of vehicle. The regulatory framework in Sweden and Finland differs somewhat from that in other Member States insofar as long trucks (25.25 metres) are not allowed in the latter. Volvo argues, however, that '…any major manufacturer would be in a position to modify one of its standard models for a specific application.'[107] The Commission did accept this explanation and agreed that 'the different types of heavy trucks do not constitute separate product markets.'[108] Yet another regulatory aspect is of interest, viz. the cab crash test required by Swedish law. Whether justified or not, the Commission considered it as a 'specific regulatory barrier to entry.'[109]

With respect to the delimitation of geographic markets, however, the Commission and Volvo had totally different ideas. Volvo maintained that, since '"…price differences between Member States are not substantial…"', '…imports within the EEA are increasing…', '…deregulation in the truck industry has led to a "significant change in customer profile and purchasing habits."', product standardisation in Member States was in process, establishing dealer and after-sales networks were no longer necessary, parallel trade in heavy trucks was in evidence, and deregulation of the downstream transport industry was increasing competition, the geographic market for heavy trucks should be defined as EEA-wide.

In the view of the Commission, each of Sweden, Denmark, Norway, Finland and Ireland constitutes a separate geographic market. Looking at the Swedish market, the Commission considers that:

> First, … purchasing of heavy trucks is done on a national basis and that the distribution and service networks constitute a barrier to import penetration to manufacturers who do not have a well-developed local network. Secondly, … prices in Sweden are different from those in its neighbouring countries. For instance, the (adjusted) price in Sweden for [a commonly sold model] is [10-20%] higher than in Denmark, [10-20%] higher than in Norway and [0-10%] higher than in Finland. Thirdly, Volvo's profit margins in Sweden are different from those in the other Nordic countries. … Fourthly, technical specifications are different in Sweden than in the rest of Europe as higher tonnage and longer trucks are allowed in Sweden. Moreover, the Swedish cab crash test has been identified as a specific regulatory entry, … Finally, RVI only has 1% market share in Sweden while in neighbouring Finland the "national" brand RVI/Sisu has 18%

Having delimited the relevant geographic markets, the Commission looked at their structures. Adding Volvo's market shares to those of Scania, it found that "new" Volvo would have more than 90 per cent of the market in Sweden (while its shares in Denmark, Finland, Ireland and Norway would vary between 47 per cent in Ireland and 70 per cent in Norway).[110] In addition, Volvo and Scania were found each other's closest competitors. Both companies produce high-quality products, which are supported by effective after-sales service networks. Customers display strong preferences for the two Swedish makes as well as a high degree of brand loyalty. Under the headline *Barriers to entry and absence of potential competition* we find that 'the so-called cab crash test … constitutes a significant barrier to entry …' and that '…Volvo and Scania have an additional advantage based on their well-spread service network in Sweden.' Competitors would incur high investment costs would they decide to expand their operations in that country. On the basis of this evidence the Commission found it 'highly un-

[107] ibid. p. 6
[108] ibid. p. 8
[109] ibid. p. 16
[110] The figures relate to 1998

likely that any truck manufacturer will decide to penetrate the Nordic truck market, and the Swedish market in particular …' and it '…therefore considered that the proposed operation would result in the creation of a dominant position in Sweden.' Consequently, the Commission found the merger incompatible with the common market.

A Chicago-style approach would probably find it considerably difficult to accept most of the Commission's arguments. One of the reasons why Volvo selected Scania as the target of its (hostile?) take-over ambitions is most probably the overlapping nature of the service networks of the two companies. The Commission admitted that efficiency gains were to be made but, in line with its philosophy, elected to ignore that aspect of the merger. While it is certainly true that the establishment by, say, Mercedes-Benz of a service network would be expensive, it should also be remembered that the two incumbent Swedish truck makers had to make similar investments earlier in order to attain the positions they are holding today. Besides, it would be quite difficult to label Mercedes-Benz as a weak participant on the market. A similar objection can be raised against the idea of customer loyalty being a barrier to entry. Of course, these objections are generally directed against Bain's doctrine about "barriers to entry". Regulatory barriers to entry were also adduced against the merger. It is, however, hard to see why producers should take the blame for government-imposed obstacles to competition. Lastly, mention should be made of the fact that the Commission only paid a scant attention to competition on down-stream markets. A recent publication from EUROSTAT[111] studies the development of cabotage[112] during the 1990s. The main finding of the paper is that cabotage has increased considerably during the decade but that it is still small in absolute terms[113]. More than two thirds of cabotage in the European Union took place in Germany (1997) and Dutch hauliers held the biggest chunk of the business (34 per cent) while Swedish companies were responsible for 7 per cent. Despite the as yet relatively insignificant magnitude of the cabotage penetration rate, truckers' and truck drivers' organisations commissioned SIKA, a governmental research institute for the study of transport and communication problems, to review the competitiveness of the Swedish road transports industry in the face of intensifying international competition. As expected, the study found that, with the exception of Finish hauliers, all major competitors from the EU area had lower costs – of the order of 20 – 30 per cent – while Polish hauliers operated at a cost advantage of roughly 40 per cent compared with their Swedish counterparts. Even though these figures may overstate the real differences – using vehicles with a higher number of axles, Swedish hauliers can offer higher quality service than their European counterparts – the study arrives at the conclusion that the Swedish road transport sector is exposed to a tough price competition on both the international and the home market. Profit margins not being excessive, one could speculate that a "small but significant increase" of the price of Swedish trucks might well result in driving out Swedish truckers from the market and replacing them by competitors from other EU countries as well as from East and Central Europe.

7.4 Vertical effects: the Skanska/Scancem case. The recent *Skanska/Scancem* case seems to be of some interest in the present context since it illustrates the Commission's thinking in two areas: those of the nature of control and vertical effects.

7.4.1 The Nature of Control. Skanska is one of the giants in the Swedish construction industry as well as an almost omnipresent actor on the international stage. The Aker group of Norway

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[111] Allen (2001)

[112] "Cabotage" defined as "road transport inside a country by a haulier based in another country". ibid. p.1

[113] 'Provisional results indicate that there was no "explosion" of cabotage when quantitative restrictions were abolished in July 1998.' ibid. p. 1

has been active in building materials as well as in offshore oil and gas engineering. Euroc AB, the predecessor of Scancem, was a cement producer with facilities in Finland and Sweden. Partek, a Finnish company, had, alongside with Skanska, a substantial part of the shares of Euroc. In October 1995 Euroc bought the cement business of Aker. Aker, in turn, got paid in newly issued shares in Euroc as well as in cash. Aker bought old Euroc shares from Partek and ended up with owning a third of voting shares. Meanwhile, Skanska bought Euroc shares from Robur – a finance company associated with the Swedish savings banks – whereby it also ended up with a third of all voting rights in Euroc. The new company was renamed to Scancem. In the view of Aker and Skanska there was no question of joint control because there was no strong common interest and no agreement on how to vote. The Commission disagreed. In its view, the building up of an equal amount of voting stock on the part of the two companies – and alongside with the fact that Skanska did not make use of the pre-emption agreement (which it had with Partek) to prevent Aker from acquiring such a big chunk of the shares – suggested that '…the acquisition had taken place by means of concerted action'. Despite assurances from Aker and Skanska that there was scope for changing alliances, the Commission thought to have enough evidence of a *de facto* joint control (…it would make more sense for Skanska and Aker to act together on a durable basis, as opposed to trying to form shifting alliances.').

Two years after the initial transactions Aker exchanged its low-voting shares for high-voting ones thereby increasing its share of votes to 41.2 per cent. This transaction, in turn, prompted Skanska to buy more shares ending up with 48.06 per cent of the votes. As a result, Skanska found itself in a position of *de facto* sole control: having scrutinised the low participation rate in past shareholders' meetings of minority owners, the Commission ruled out the possibility for Aker to mobilise votes sufficient to override Skanska.

7.4.2 Vertical Effects. Skanska was initially reluctant to accept that concentration in the meaning of the Merger Regulation document was at hand but, eventually, it had to yield and notify. The relevant geographic markets were present in all of the Nordic countries. However, for our purpose it will be sufficient to look at the relevant product markets in Sweden. In its search of the relevant product markets the Commission identified the following facts:

- 'Skanska and Scancem cover the whole value chain in the construction sector.'
- 'Skanska and Scancem are active in the production of cement-based construction materials and other construction materials (e.g. bricks, plasterboard, paint plaster and floor levelling products.'
- 'Skanska is the largest construction company in the Nordic region'

It then concluded:

In view of this, the notified operation has a significant vertical impact on all the markets mentioned below. There are also significant horizontal overlaps between Skanska and Scancem on the Swedish concrete and aggregates markets

The Commission classified as relevant the markets for cement, aggregates (gravel, crushed rock and sand), ready-mixed concrete, dry concrete, pre-cast concrete and construction. Because cement is a key input in all types of concrete, it will be sufficient to look at the market for cement in some detail. The Commission found that Scancem had a dominant position on the Swedish cement market with a market share of between 80 and 90 per cent. That, however, was not the end of the story because the concentration would also have, in the Commission's view, a vertical impact reinforcing the new entity's dominant position. First, Skanska would not buy cement from other sources than Scancem, whereby 'the market would be effectively foreclosed for cement imports.' Also, the Commission appeared to predict a strategy of intimidation on the part of Skanska:

'Skanska would be able to employ a number of strategies to foster loyalty among Scancem's cement customers. Indeed if Skanska were to consider that any particular cement customer acted in a way which was incompatible with Skanska's interests, it could worsen the supply conditions relating to cement, focus its competitive activities in the concrete markets on that company and/or reduce or threaten to reduce its purchases from the company. This variety of measures was previously not available to Scancem.'

The above assessment is reiterated in the overall assessment from which it also transpires that Skanska's not vertically integrated competitors are in a rather weak position. Here again, as in the previously discussed merger case (*Volvo/Scania*), the Commission focussed entirely on the interests of competitors with no reference to the possible effects on consumers.

8. Concluding remarks.

1. The outstanding feature not only of competition policy but also of the theoretical analysis on which it is based is their highly political character. This is more openly reflected by European institutional arrangements than American ones. The college of Commissioners – a political body – takes decisions in the European Union (even though the European Court of Justice may have the last word in cases that land on its desk), while courts at different levels decide on antitrust cases in the United States.
2. To a large extent, the weaknesses of competition policy are also those of neo-classical analysis. Assuming perfect information, neo-classical microeconomic analysis makes extensive use of the long-run average cost curve (LRAC), deriving far-reaching hypotheses about uniquely determined minimum efficient scales of operation (MES). This leaves little scope for taking into account product differentiation or strategic behaviour – reflecting different expectations as to developments in the nature and structure of demand – in choosing plant size or sets of equipment. Also, mirroring 19th century ownership relations and other institutional arrangements, analysis and policy identify welfare with the notion of "consumer surplus" and leave aside welfare gains from improved efficiency. This philosophy causes confusion in two respects. For one, the welfare gains of beneficiaries of pension funds, whose share holdings are becoming more and more important, and those of small shareholders are ignored. Secondly, as is illustrated by the *Volvo/Scania* and *Skanska/Scancem* cases, the welfare of the buyers of intermediate goods (trucks, construction materials) are considered, while that of consumers, whose welfare gains or losses are manifested on down-stream markets, are not at all dealt with.
2. The definition of product and geographic markets is done, at least theoretically, on the basis of predicted cross elasticities of demand between the product(s) of the merged entity and those of its competitors. It goes without saying that such predictions are difficult to make, all the more so, when technology and demand conditions are rapidly changing.
3. The SCP paradigm has left a deep impact on competition policy. It is a hotly debated issue whether structural characteristics are of any use in deciding as to how much market power individual companies – or a bunch of them taken together – may or may not wield. It appears, though, that the Commission assigns a decreasing importance to market shares as such. However, they continue to figure prominently in the package on the basis of which issues of dominance are decided.
4. The most contentious issue remains that of "barriers to entry". The heaviest arguments adduced by the Commission against mergers are probably based on the perceived existence of barriers to entry: if there are no such barriers, there can be no arguments against a merger. On the other hand, critics will continue to maintain that consumer preferences, product differentiation, first-mover advantages, capital requirements and economies of

scale are no different from other constraints under which investment and production decisions will have to be taken.

5. Unlike American practices (under market-liberal administrations at least) European competition policy does not allow for the efficiency defence. Irrespective of the ideological inclinations of national governments – and with the notable exception of the Britain of Margaret Thatcher – the European tradition to protect small-scale producers as well as stakeholders in large companies is likely to make its presence felt in competition policy even in the future. Also, the antitrust authorities in the United States are more permissive when it comes to determine the boundaries of the relevant geographic market than is their European counterpart.
6. There is as yet no hard empirical evidence to indicate what microeconomic policies would yield the optimal outcome: the years under the increasingly interventionist policies of President Clinton were as dynamic as developments under the more relaxed and market-liberal regime of President Reagan.

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