A Legal and Economic Analysis of Competition and its Regulation
2.1 Introductory remarks

The EC Treaty clearly states that the economic policy of the Community and the member states shall be ‘in accordance with the principle of an open market economy with free competition’. This already shows the two major players in this research: law and economics. In essence, both are instruments for explaining and (to a certain extent) steering the behaviour of the actors in a society. These two are interrelated: law, as the EC Treaty shows, can be used to direct economic policies. At the same time certain areas of law are subject to economic reasoning. This interrelation can very clearly be seen with regard to competition. The desired degree or intensity and scope of competition on a market are prescribed by law. At the same time the operation of the laws that concern this intensity of competition is subject to economic analysis. This relation between law, competition and economics is, even for those who haven’t read Bork’s *The Antitrust Paradox*, at times problematic. The thought of having something as unwieldy and, as it is often argued, inefficient as law govern something that is considered to actually embody efficiency and dynamism may strike one as paradoxical indeed.

The twists and turns of over forty years of EC competition law show that the relation should not so much be characterised as paradoxical but rather as difficult. Since it takes place within a legal framework, the regulation of competition needs a justiciable objective in the light of which the competition laws can be interpreted and applied. The search for such an objective (justiciable or not) as a *leitmotiv* for competition policy has laid the basis for a considerable branch of economics that can be said to have started with Adam Smith. Below we will succinctly sketch the development of economic and legal thinking with regard to competition and its regulation with a view to establishing the *status quo* as EC competition law and policy are regarded. Because this thinking has in many cases been developed as a reaction to earlier doctrines, the treatment will be largely (chrono) logical. The following paragraphs can necessarily only be incomplete as fully charting the theoretical backgrounds to competition and its regulation would mean writing a book in itself. This overview of theories concerning competition only serves to further clarify what competition, and the limits to it, is about. It will show that throughout the history of economic thinking with regard to competition, a major role has been played by the exceptions to the rule that competition will lead to optimal results.

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1. Article 41 EC.
2. According to the European Court of Justice, for example, the EC seeks to attain ‘workable competition’, cf. Case 26/76, Metro v Commission (Metro I), [1997] ECR 1875, para. 20.
2.2 Competition as an economic phenomenon

One of the factors that has made man such a successful species is probably that fact that we have organised ourselves in societies with the members of this society opting for specialisation. This specialisation has, however, brought with it the problem of how to coordinate who will produce what commodities in which quantities. In the small informal society this coordination will have worked accordingly informal. As societies grew and wants as well as production not only increased in absolute numbers but also in diversity, this coordination became increasingly difficult. The solution was the introduction of currencies. This in turn created a market. Left to itself, this market would by and large ensure that production met the needs of the society. Problems, however, could arise as the production of certain commodities came into the hands of one or a few parties. These parties could then raise the prices for these goods by, for example, artificially restricting production thereby turning these goods into a scarcity. This problem, that of the monopolist distorting the market, is addressed by the earliest examples of what we now call competition law.

Our experiences as consumers will certainly help in understanding why a monopoly is a less than wholly satisfactory market structure. On the other hand, the opposite market structure – a very large number of suppliers – does not inevitably lead to better results. What exactly competition is and how its intensity should be measured and controlled has been the subject of myriad works. One the recurring themes in these works has been the inevitable exception to the rule that competition is the best method to organise a market. In a sense, this debate can be said to have started with the first description of the competitive process by Adam Smith.

Adam Smith was the man who first described the competitive process and the dangers to it. Smith grew up in a corporatist or mercantilist world and saw inefficiencies everywhere. When examining this theory one of the most important things to keep in mind is the era in which it was conceived. The Wealth of Nations, as it is often called, first appeared in print in 1776, which is before the Industrial revolution. The excesses that came along with the Industrial revolution hadn’t occurred and society was still dominantly agrarian. The cities were bristling with trade and here the governments’ influence on society was felt

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5 For a rather elegant description see Plato’s Republic, Book II. A perhaps more scholarly examination may be found in J. M. Diamond’s Guns, Germs and Steel – the Fates of Human Societies (London, Cape 1997).

6 In this society the government played a central role in regulating trade. The governments’ main objective under this system would be the accumulation of as much gold as possible. This would be accomplished through promoting exports and restricting imports.

most. The government was quite active on the market and regulated all sorts of economic activities. Trade was conducted only through the great trading companies, large profits were made and the rural country was very much lagging behind in development. Smith calls this organisation of society The Policy of Europe. In this context Smith devises his theory that a liberal organisation of the market results in the greatest allocative efficiency and thus the greatest welfare for all. Any deviation from this liberal organisation, either by individuals or government, was deemed detrimental to welfare. Smith envisaged that a market would function optimally if there was free competition. The concept of free competition thus sees to the economic order and is described by the results of that order on the market. More particularly is this situation described as a market where the market price is the natural price. The market price is the price which exists for a good on a real market. This price comes about by the market that brings together the supply for a certain price of a good and the demand, for this price for a good. The natural price is the sum of the production costs and a reasonable or average profit. This natural price will be the price to prevail in the long run on a market that is freely competitive. It is an equilibrium price in that supply and demand are now in balance. In Smith's words the equilibrium is reached through the 'invisible hand' which describes what is now known as the market-mechanism.

Even though they are not necessarily identical, the natural price and the market price are strongly related to each other. Differences in the short term will disappear in the long run when the market price is in fact equal to the natural price. Smith describes this process as a price 'to which the prices of all commodities are continually gravitating'. For the market price to become the natural price there needs to be free competition on a market. Smith nowhere really defines this the circumstances on this market but some basic propositions for this market can be deduced from his work. Stigler distinguishes a total of five more exactly formulated prerequisites for a market to be freely competitive.

- Independent behaviour of competitors.
- A sufficiently large number of competitors so as to eliminate extraordinary profits.
- Economic entities must have sufficient knowledge of the market.
- Freedom from social pressure so that this knowledge can be followed

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8 Allocative efficiency is the efficiency with which production factors are used. Inefficient use will increase costs with no extra outcome thus reducing profit.

9 Smith 1994, p. 69.

10 Smith does not define this margin of profit in any more detail but uses these terms to describe this margin, Smith 1994, p. 53.


12 G.J. Stigler 1975, p. 31 et seq.
without compromise.
- Sufficient time for production factors to re-allocate.

Despite their more indicative character even these five criteria lack quantitative clearness. Nevertheless, precisely this general character lends Smith's concept much of its charm and beauty. Smith envisaged two reasons which might hinder free competition from fully functioning or existing in the first place. Firstly, the government policy could stand in the way of free competition and, secondly, the behaviour of individuals on the market might keep free competition from truly functioning.

In the days of Smith the government was rather active in regulating trade. It did this through the granting of trade monopolies to the trade companies and secondly many of its regulations prevented the free access to a market. Trading companies, that had been granted the exclusive right to conduct trade, found themselves in a monopoly position. They could effectively control the supply and thus price for a good in which they traded. The natural urge to maximise profits would in fact lead, according to Smith, to the monopoly price being the highest price possibly squeezed out of market. Many of those active in a regulated profession found themselves in a similar position. Government regulations dictated that certain professions, mostly the crafts, could only be exercised by a limited number of people in a city or that only a limited number of people were allowed education in a certain profession. These regulations kept the access to the market closed so that existing craftsmen were effectively monopolists and displayed the accompanying behaviour.

In those areas of the economy where there was free access to a market or where there were competitors, Smith expected problems because of the urge of competitors to work together rather than compete. This leads Smith to one of the most quoted passages of his book concerning the natural urge to conspire to raise prices through reductions of supply. As this constituted a very realistic danger, Smith considered it necessary for the government to prevent such conspiracies. The government's task however would be quite different from that which the authorities fulfil nowadays in enforcing anti-cartel law. Smith thought that it would be useless to actively investigate into these cartels and consequently attack them. He rather thought that the government should just not encourage or facilitate these meetings in the first place. The most potent weapon against these cartels, Smith thought, would be the same urge that drove the competitors to conspire in the first place. The striving for profit maximisation would only have to lead one competitor out of the cartel and prices would come down as this rebel supplied the market to its full demand. Government policy should be

\[1\] Smith 1994, p. 69.
aimed at discouraging meetings between competitors and thus keep the market open to new competitors.\textsuperscript{14}

Furthermore, government policy should refrain from regulation that would result in increased barriers to entry on a market. With this last form of regulation Smith aims at regulations restraining the number of craftsmen in a certain town or regulations restraining access to training in a craft or otherwise barring competition. This sort of regulation was induced by pressure from these groups and only served to protect the monopoly they had.\textsuperscript{15}

Apart from these regulations the government could also frustrate the market by artificially oversupplying it or by blocking the efficient allocation in practice. As a nowadays perhaps somewhat incredible example of oversupplying the market Smith mentions the great inflow of religious men into clerical education. The result of this was an excess of clergymen who found no occupation or only for very little reward. The government could also keep the optimum allocative efficiency from being attained by literally prohibiting people and goods from moving or being moved to other places. Another way in which the government could influence economic processes was through \textit{bounties} and \textit{premiums}.\textsuperscript{16} What Smith calls bounties resembles present-day subsidies or state aids. Premiums would appear to have more in common with rewards to encourage inventions. Smith comes to the conclusion that bounties cost the society more than they generate through the subsidisation of certain groups. This, again, leads to a rather restrictive view of the role of government in society. The governmental activities on the market are all concerned with externalities in that they either create them (excess clergymen) or seek to offset them (bounties).

With regard to the relationship between monopolies and free competition several observations are possible. Firstly, Smith generally considered the monopoly to be a sub-optimal situation. They brought along undersupply of the market, inefficient management,\textsuperscript{17} and higher prices on the market. Secondly, free competition, contrary to monopoly, with its optimum allocative efficiency, resulted in the lowest possible production costs and a correspondingly low market price, thus guaranteeing maximum welfare. Thirdly, a market was either freely competitive or it was a monopoly, any organisations between these two extremes were not thought of.\textsuperscript{18} Despite this neglecting of intermediary market structures, Smith did envisage a tendency towards freely competitive markets.

\textsuperscript{14} Smith 1994, p. 148.
\textsuperscript{15} Smith mentions as an example the prohibition on the import and export of wool, woollen products and sheep induced by pressure from the wool manufacturers. Smith 1994, p. 700.
\textsuperscript{16} Smith 1994, p. 560.
\textsuperscript{17} Thus Adam Smith appears to have identified the problem of \textit{x}-inefficiencies \textit{avant la lettre}.
\textsuperscript{18} This almost dialectic relation between competition and monopoly was further exacerbated in the theories of complete competition, see para. 2.6.
This tendency is inherent in Smith’s conception of competition as a dynamic process. This dynamic view of sees competition as an incessant drive behind suppliers to deliver the best quality products for the lowest price. The same drive exists for the buyers who will want to buy the best quality for the lowest price. Competition as a dynamic process will force the competitor to outperform his fellow competitors. As a result a process of continuing improvement is initiated. This improvement can be to reduce the price of a good but Smith also predicted improvements to quality, service, and conditions of delivery. Furthermore competition was recognised as the best guarantee to good management.

While the simplicity of Smith’s theory resulted in its use for a long period, the advent of mathematics, however, had as a consequence that theories of competition needed to become more quantitatively precise rather than merely descriptive. This was accomplished through the introduction of models of competition where the only parameters were output and price. The fact that only two parameters are included show that they are simplifications or abstractions of reality, they offer clear quantitative outcomes on the cost of a certain departure from reality. Adam Smith’s contrast between monopolies and free competition was further enhanced by many different concepts of what competition was. In addition, it is in this enhancement that the greater distance from reality, that is inherent in these models, is most obvious. Part of this retreat from a fairly realistic idea of an actual market into the realm of economic and econometric models was perhaps offset by the introduction of the notion of external costs into these models. We will see that this notion, although originally not directly triggered by environmental problems, is of great importance with regard to the relation between competition and environmental protection.

A first attempt to introduce mathematics into theories of competition was undertaken by Cournot. The basic premise is that economically rational behaviour would lead to profit maximisation. Thus examining competition from a mathematical perspective, profit was expressed as the difference between revenues and costs. As revenues are the product of price and output, the question is how output and revenues relate to each other. Cournot proposed that competition involved a situation where, for the single supplying competitor, price and output are fixed. The demand-curve is horizontal and competitors are ‘price-takers’. This describes the situation where, because of their small share of the market and the large number of other competitors, no individual competitor has an influence, through his output, on the market price. The optimum

19 Cox & Hübner 1981, p. 9 et seq.
21 See on this subject: Tolksdorf 1980, p. 787.
22 A French economist who was played a major role in introducing mathematics in economics, Hildebrand 1998, p. 141.
situations for a competitor on such a market is found at the output where his marginal costs equal the market price for that output. Beyond this point the costs of producing an additional unit would no longer be completely covered by price that he would get for the increased output. The monopolist, however, is a ‘price maker’ and faces a downward sloping demand curve. His market price and therefore revenue fall with increased output. Because of this, the monopolist’s optimum, where marginal costs equal marginal revenue, is necessarily at a lower output compared to the situation where a market is competitive.23

The great advantage of a perfectly competitive market is that the situation on that market is Pareto-optimal.24 This describes the situation on a market where any change in the welfare for any individual must necessarily be detrimental to the welfare of another. Welfare is therefore at its maximum and optimally distributed. The situation that is attained in a Pareto optimum enables the deduction of certain preconditions for a system in which this optimum is reached.25 Competition theories, conceived under the maxim of pareto-efficiency, are therefore aimed at defining these preconditions. As different theories to attain pareto-efficiency were conceived, different preconditions were the result. These preconditions serve to distinguish the three major forms of perfect competition and indicate the ‘model-character’ of these theories.26

One of the major contributions of the theories of perfect competition was the introduction of a static view of competition. This was, irrespective of current valuations of this concept, a very important step in economic thinking. Where Adam Smith’s concept of competition described a process,27 competition, according to the theories of complete competition, denotes a situation. In this view competition is a certain, static, organisation of a market. As a result, the perspective can be aid to have changed from the process to the end result of that process.28

The practical implementation of theories that are so far removed from reality as the theories of perfect competition is not easy. The existence of a very clear goal, namely maximum efficiency through the realisation of competition, is

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23 For a fuller treatment of this economic reasoning the reader is referred to: Ph. Areeda, Antitrust Analysis, problems, text, cases, 1974; R. van der Bergh, Economische analyse van het mededingingsrecht, 1993; F.M. Scherer & D. Ross, Industrial Market Structure and Economic Performance, 1990.


26 E.H. Chamberlin 1962, p. 7 et seq; Scherer & Ross 1990, p. 17; Bartling 1980, p. 13. Another distinction is found in: Van den Bergh 1993, p. 17. Perfect competition, for example, requires many suppliers with each only minute market shares, a fully transparent market, homogeneity of products, Free access to the market for new competitors, absolute mobility of factors of production and infinite adjustment speed.

27 Supra, paragraph 2.5.5.

immediately offset by the difficulty of fulfilling prerequisites that are largely unrealistic.

One strand of thinking has made it from theory to practice. This is the competition theory devised by the so-called Ordoliberals of the Freiburger Schule that had Walter Eucken as their major proponent. This school of thought introduced perfect competition as a pillar of a complete economic system and competition policy. These ideas were to a large extent implemented in the German competition act, because of the positive effects that full competition would have on welfare particularly when this market-based system is contrasted with centrally governed economies.

Before going into the more substantive aspects of this competition theory, the setting within which competition law and policy were to function will be explored in some detail. One important feature of ordoliberal thinking on competition was the role they envisaged for law. According to the ordoliberals, perfect competition would provide economic as well as non-economic benefits to society but only where this form of competition was maintained by a public policy on the organisation of the market: Ordnungspolitik. The task of the government is therefore to establish the necessary structures for competition but not to influence the competitive process itself. The competition laws were to be applied by an autonomous entity that would apply legal standards. The legality of the acts of the competition authority would have to be subject to judicial review. The juridical nature of this procedure involved a major break from the traditional system of administrative application of the competition provisions.

Eucken defined the concept of full competition not only through the prerequisites but also by distinguishing it from what it not entailed. According to him full competition had to be distinguished from Laissez faire-policy and the so-called Monopolkampf. Full competition entailed a Leistungswettbewerb.

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39 Within the ordoliberal school some other streams of thought can be distinguished. For the purpose of this book the distinction between these schools and their features will not be explored any further. See for further references D.J. Gerber, Law and Competition in Twentieth Century Europe — Protecting Prometheus, 1998.

30 German scholar Schmidt argues that within the Ordoliberals there were in fact two schools. One that proposed a statical approach to competition (represented by Eucken) and another that advocated a workability-approach (represented by von Hayek and Lutz), Schmidt 1966, p. 699 et seq. Despite the differing opinions on these terminological problems, Walter Eucken will be taken as the proponent of the Ordoliberals as one theory.


33 Eucken refers to 'Vollständiger Wettbewerb' which is essentially a species from the genus of perfect competition.

34 Eucken 1960, p. 247.
This described the situation where competitors strive to compete not against but alongside each other. In an analogy with the constitutional state, Eucken states that competition law should create a system where the individual freedom of the one is limited and balanced with the freedom of the other. The freedom being, in this context, the freedom to compete.

2.3 Concepts of workable competition

As the theories of perfect competition were removing themselves more and more from the practice and models had become increasingly complex and theoretical the search for a more realistic method of understanding competition gained impetus. A first step towards this more realistic approach, even within the theories of perfect competition, was accomplished through the abolition of perfect competition as a maxim. Rather than researching this practically unattainable form of competition, several authors focussed their attention on imperfect competition or monopolistic competition. This shift of focus, however, did not mean a departure from the logic and reasoning inherent in static price theories. This departure took place only in 1940 when Clark published his article on workable competition. This concept entailed a dynamic approach to competition and was taken further by the Harvard School that developed it into their theory of Industrial Organisation. This theory studies the behaviour of entities on a market in relation to the organisation or structure of that market. The theories proposed by the Harvard School will be most intensively studied whereas Clark's concept will be treated in lesser detail. German scholars used the concept of workable competition and developed it further into a theory that analyses competition as a process. The theories devised by German doctrine will only be examined insofar as they are relevant for the integration of environmental concerns.

2.3.1 Workable competition

Clark's introduction of workable competition in 1940 did not mean a total break with the theories of complete competition. Complete competition is still the ideal but he considered it unattainable. It is only in his magnum opus that Clark rejects the idea of complete competition as an ideal
value. Clark's contribution to the development of competition theory can be summed up under two headings: realism and dynamism.

Clark's activities under the first heading involve the basic perception that complete competition can never be attained on a real market. The approach should consequently not consist of attempts at removing imperfections. Such deviations from complete competition are called remedial imperfections and can act as an 'antidote\(^{40}\) to neutralise other imperfections. The theory that advocates the use such imperfections to create a workably competitive market is called the theory of second-best. This is done principally on the ground that the prerequisites for a system of perfect competition are cumulative. Where one or one of the prerequisites for a system have not been fulfilled, the competition remaining on that market does not necessarily constitute a 'second-best' compared to the situation where all prerequisites are found on a market. This is proved by the following example of the introduction of an open price system on an oligopolistic market with homogenous goods.\(^{41}\) The market is imperfect in that the amount of suppliers is less than would be necessary for a perfectly competitive market. The introduction of an open-price system, where prices are to be reported centrally, was thought to increase competitiveness, under theories of perfect competition, because of the increased transparency.\(^{42}\) The result on the real market, however, can be quite the opposite in that competitive behaviour might be replaced by parallel behaviour thus reducing competition. Heterogenisation of products, seen by the theories of perfect competition as an imperfection, could lead to increased intensity of competition or workable competition.

The other breakthrough accredited to Clark is the reintroduction of a dynamic perspective to the theory of competition. After Smith, the theories of complete competition turned to a static perception of competition. Clark studied competition as a process; as a result, the factor time was introduced. Competition was now seen as a process of initiative and imitation. The entrepreneur fulfilled a pivotal role in this process because his initiatives functioned as the motor behind competition. This recognition of competition as a process of innovation and imitation was inspired by the views introduced by Schumpeter.\(^{43}\)

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\(^{41}\) As it exists on such markets in the UK, USA and Germany.

\(^{42}\) Thus the fullfillment of one extra condition posed by the theories of complete competition, see supra paragraph 2.6.2.

\(^{43}\) Schumpeter introduced the innovative and following type of entrepreneur. Together, in a process he described as 'schöpferische Zerstörung' or creative destruction they kept competition going. J.A. Schumpeter, Kapitalismus, Sozialismus und Demokratie, 1950. This concept was taken and elaborated by Ernst Heuss in his book, Allgemeine Marktheorie, 1965, where different types of entrepreneurs and markets for products are introduced.
One of the critiques directed at the theories of perfect competition is that they would result in what has been described as ‘Schlafmutzenkonkurrenz’.

This is a situation where there is perfect competition but no innovation whatsoever. Not only are the profits so minimal that there will hardly be any budget for research and development, more importantly, there will be no incentive. The absolute transparency and infinite speed of adjustment on the perfectly competitive market would make it useless and, most importantly, unattractive to innovate since there are only costs and no profits. The result is a competition between the sleeping.

For innovation to occur there need to be market imperfections which enable the innovator to enjoy the fruits of his investment. Furthermore innovation mostly occurs in large firms which have the resources to fund research and development. These two preconditions are very hard to reconcile with perfect competition. The result is the so-called dilemma-thesis. Only a competitive market can ensure optimum allocation of factors of production, best fulfilment of consumer wishes, lowest prices, and thus optimum welfare. A more monopolistic market will, however, generate more development. This problem was taken further by the Harvard School of Industrial Organisation that intensively studied the relationship between market structures and, ultimately, the results on that market.

2.3.2 The Harvard School

Mason laid the foundations for the Harvard School in the 1940's by defining the structure-behaviour-performance-paradigm. This describes the core theory of the Harvard School where the structure of a market influences the behaviour of economic entities on that market which, in turn, determines the results of that market. The structure of a market entails factors such as the number of suppliers and consumers, product differentiation, barriers to entry etc. Behaviour on a market consists of pricing behaviour, investments, research and development etc. The results of a market are formed by production, allocative efficiency development and other indicators. Along with these three factors, two other parameters play an important role in this paradigm: the basic conditions and public policy. The basic conditions describe the fundamental properties of a market which consist of, amongst others, avail-

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44 Lutz 1956, p. 32.
45 Cox & Hübner 1981, p. 15; Schmidt 1993, p. 34.
47 Scherer & Ross 1990, p. 5.
48 Scherer & Ross 1990, p. 5.
49 Scherer & Ross 1990, p. 5.
ability of factors of production, demand side elasticity. Public policy consists of
tax regulations, product regulations but also competition policy. The Harvard
School owed a great deal of its appeal to the clear policy guidelines it offered
and the fact that empirical evidence was available to verify the paradigm. Public
policy needed only to be aimed at allowing the market to function so that good
performance could be expected. This concept of good performance is a multi-di-
mensio nal concept that goes beyond mere economic progress.°

Typical for the Harvard School approach to competition policy is the fact that
this is placed in a broader context to reach multiple goals.°° Competition policy is
thus seen as a means to achieve certain goals. Bain describes a system in which
this instrumental character of competition policy can function optimally.

The highest-ranking goals are of a general nature such as optimum results
for the whole economy. Just below this there are the more economically tinted
goals such as efficient allocation, stability and progress. To reach these object-
ives, certain market results are needed: efficient production, absence of chronic
excesses or shortages, maintaining resources etc. Departures from the optimum
market order can be: to many small enterprises, monopolisation, and unwanted
external effects. To cure these deficits it might prove necessary to use public
policy and interfere with the market. This mainly is done through competition
policy. Depending on the specific nature of the deficit a certain instrument of
competition policy may be used. For the purpose of this study it is expedient to
concentrate on the policy with regard to unwanted external effects.

According to Bain there are different aspects of performance on a market
and these also entail performances in other than directly economic areas. One
of these is the so-called conservation-performance.°° This refers to the maintain-
ability of resources which can be subject to external effects.°° For example,
misuse of resources may entail external costs in that the present use or extrac-
tion of factors of production is impossible to maintain in the long run and will
then result in extra costs. Bain attributes bad conservation performance to four
factors:

- A situation of antagonistic exploitation may exist where competition in
  exploitation will result in a contest to exploit the resource before others
  have.
- Inherent short-sightedness of entrepreneurs.

°° Hildebrand 1998, p. 157 et seq.
°° In fact, Clark appears to have done this already by posing the question 'What do we want competition to
do for us?'. Clark 1961, p. 63 et seq.
°° Bain 1968, p. 497 et seq.
°° Bain 1968, p. 425 et seq. and 489 et seq.
°° See also Gabriel 1971, p. 802 et seq.
Small margins of profit disabling entrepreneurs to invest in long-term conservation.

- Stupidity.

With regard to the relation between industry structure and conservation performance in general, Bain remains ambiguous. Despite the fact that he expressly notes the problem of antagonistic exploitation, which is a problem due to competition, not to the existence of a monopoly, Bain does not clearly indicate whether monopolies or competitive markets are more prone to bad conservation performance.\(^5\)

In the chapter concerning antagonistic exploitation, Bain offers some policy guidelines with regard to the improvement of the conservation performance. He considers restructuring the industry the most viable option in that the market should be reorganised to a monopoly.\(^5\) In his view, this is preferable above detailed regulation of competitors' behaviour, as this last option would cost society more than one regulated monopolist. This is an example where the intensity of competition is decreased for, mainly, reasons related to externalities. Further clarification of the issue of integration can be found in Bain's reasoning concerning areas exempted from competition in general.

Bain distinguished a number of areas in economy where he considered governmental regulation to lead to a better result than competition or market regulation. These areas coincide with present day public utilities and are called exemption areas. Bain mentions two basic distinguishing features:\(^5\)

1) Companies active in these areas produce commonly used services or products for which no substitutes are available.

2) They are natural monopolies or oligopolies because:
   - The advantages of large scale production would inevitably result in monopolistic competition if it would be attempted to install competition and
   - An attempt to install competition would lead to a reduction of welfare because of the technological nature of the industry concerned.

Areas of the economy that fit this profile are thus eligible for exemption from competition. Many areas of activity in industry with obvious environmental implications fit this profile and would thus, according to Bain, be considered exemption areas. With regard to these exemption areas two questions are asked:

\(^5\) Bain 1968, p. 494, 495.

\(^5\) Gabriel also prefers intervention in the market structure to cure bad performances, Gabriel, 1971, p. 805.

\(^5\) Bain 1968, p. 581, 634.
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firstly, is the exemption from competition truly necessary and secondly, is the exemption ‘workable’?

Whereas the first question is generally answered positively, the second question needs some more attention before it can be answered in the positive. Existing regulation of exemption areas generally shows shortcomings where ensuring adequate market results is concerned. All in all Bain can be considered critical of the workability of these exemption areas and regards them as second-best solutions. This second-best character of exemption areas is balanced by the otherwise negative effects that would arise if competition would be allowed in these areas.

This critical approach to exemption areas is also found in the work of Turner. He recognizes that the problem of external effects and the resulting inappropriate allocation of resources needs to be solved. In this respect he describes the encouragement that some voluntary private cooperative measures have gotten from the government to meet specific social goals. He specifies this in an example of the creation of a joint venture to solve the problem of air pollution. Whereas such a pooling of resources may be the first solution to spring to mind, the question is whether this is the most effective solution. Turner doubts the effectiveness of the cooperation on research not so much because of the elimination of competition as such but more because competition is often considered beneficial to research as well. A reduction or elimination of competition on research may very well result in less productive research, according to Turner. All in all, Turner, as a representative from the Harvard School, can be said to be reluctant to exempt too many areas, because of the externalities present in them, from the competitive regime.

With this conclusion, the study of the Harvard School of Industrial Organisation, as an implementation of the workability concept is completed for this research. German doctrine developed the concept of workable competition as a process rather than structure. The discussion between German scholars is by and large very abstract and specialist and will thus only be treated insofar as is necessary for this research. The development of this doctrine took place in two camps and gave rise to, sometimes heated, discussions between the followers of the Funktionsfähigkeit concept and those who attested to the concept of Wettbewerbsfreiheit.

59 Turner 1970, p. 67 et seq.
60 Turner 1970, p. 70, 71.
61 In particular the discussion between Hopmann and Kantzenbach in the Jahrbuch für Nationalökonomie und Statistik.
2.3.3 Theories of *Funktionsfähig**en Wettbewerb* and *Wettbewerbsfreiheit*

German scholar Erhard Kantzenbach elaborated Clark's idea of workable competition into the concept of *Funktionsfähig**en Wettbewerb*. In accordance with Clark's concept, competition is seen as an instrumental concept, a means to an end. Kantzenbach concretises this instrumental character in five economic goals or functions of competition.

- Functional distribution of income on the basis of market results.
- Adjustment of demand and supply.
- Efficient allocation of factors of production.
- Flexible adjustment of production capacity to extra-economic factors.
- Continuing technological progress in products and production methods.

When Lutz’ remarks concerning *Schlafmutzenkonkurrenz* are brought to mind, the dilemma-problem, as it was called by Kantzenbach, becomes clearer. For the last two of the goals to be fulfilled, for the existence of progress, there needs to be some deviation from all to severe competition. This is found in the adoption of a particular form or Organisation of the market where there would be an optimum intensity of competition. Kantzenbach considered the wide oligopoly to be the Organisation of the market where an optimum compromise between static and dynamic functions of competition would exist.

Opposed to this view, where competition is put in the perspective of certain goals is the concept of *Wettbewerbsfreiheit*. Central to this concept is the idea that freedom lies at the basis of competition. In this respect it builds upon the work of the Von Hayek who saw competition as a process of discovery and thus placed the freedom to do such discoveries at the core of competition. In this view the freedom to discover, compete, develop and innovate is the driving force behind competition. This, in turn, leads to the requirement that the freedom to compete be central to concepts of competition rather than making competition subject to the attainment of certain goals. After this short introduction to these concepts of competition, the stance these theories take towards the integration of environmental considerations will be studied.

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62 Kantzenbach, *Die funktionsfähigkeit des Wettbewerbs*, 1966. Kantzenbach's concept will hereafter be called 'functional competition'.
63 Kantzenbach 1966, p. 16 et seq.
65 Of the abovementioned five, the first three are the static functions of competition and the last two are considered to be the dynamic functions of competition, Schmidt 1993, p. 12.
66 Most fervently defended by Hoppmann. He introduced and elaborated this concept in several articles.
This concept will hereafter be called 'freedom of competition'. Hoppmann 1966, p. 286 et seq.
Both theories regard environmental considerations as extra- or non-economic factors. Kantzenbach starts the introduction of his concept of functional competition with the express remark that such factors are not taken into account this theory.\(^67\) He balances this by recognising that competition has obvious social implications. Nonetheless, he considers the causal relationship between competition and the social implications to be very unclear and furthermore the implications themselves are very hard to value economically. Above all, the integration that would ensue would entail a political judgement in which two normative systems would be valued against the other. This complex and political nature justifies the exclusion of such factors from his economic system. According to him such judgements can always be made later. The deviations from the economic optimum would then constitute the economic costs to society for the attainment of these non- or extra-economic goals.

Kantzenbach devised a relation between the fulfilment of the functions of competition and the form or organisation of that market. In this respect, his perspective on competition doesn’t differ that much from the Harvard approach. Where the Chicago School opposed the Harvard paradigm, the concept of functional competition was juxtaposed to that of the freedom of competition. The ensuing discussion enabled the elaboration of both concepts.

Hoppmann starts out by denying the very existence of a dilemma-problem. According to him, competition shows the unity of the concepts of freedom of competition and progress. They are inherent in each other and furthermore presume each other.\(^68\) This denial of other extra-economic goals implies, according to Kantzenbach, either of two opinions on the integration of extra-economic goals. Either other extra-economic goals remain uninfluenced by competition or these other goals are irrelevant. The first view is obviously wrong, the second opinion shows such an extreme preference for one such goal that it is rendered useless.\(^69\) Rather than recognising environmental concerns and declaring them outside the scope of a concept of competition, as Kantzenbach does, Hoppmann appears to deny them altogether. Hoppmann’s concept of welfare entails nothing more than the sum of the individual economic advantages. Other concepts, of a more general nature, would only result in extra-economic value judgements being ‘smuggled’ into the concept of welfare.\(^70\) As regards the question of the integration of environmental concerns, Kantzenbach thus envisages this possibility but declares it a political choice. Hoppmann denies the choice altogether.

With regard to the stance taken towards exemption areas in general, Hoppmann’s reasoning is remarkably parallel to that followed by Bain. Only in

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\(^{67}\) Kantzenbach, 1966, p. 13 and 16; Kantzenbach 1967, p. 195 et seq.
\(^{68}\) Hoppmann 1966, p. 291 et seq; Hoppmann 1967, p. 77 et seq.
\(^{70}\) Hoppmann 1967, p. 81.
markets with natural monopolies would competition be impossible because of bad market results and therefore other methods of regulation should apply. The definition of a natural monopoly, as used by Hoppmann, is also largely identical to that of Bain.\textsuperscript{71} In thus defining areas of exemption Hoppmann has been accused of creating his own tautologies.\textsuperscript{72} Möschel argues that exemption areas are necessarily created through a political process and choice and cannot be deduced by means of a tautological reasoning.\textsuperscript{73} In particular with regard to the problem of external effects, where environmental pollution is expressly named, he acknowledges the necessity of political value judgements in order to create exemption areas.\textsuperscript{74}

In conclusion, both theories leave, implicitly or explicitly, the decision to declare an area exempt from competition to a political moment. This last brief discussion of German doctrine introduced the strand of theories that leave great room for individual freedom. This concept of freedom of competition has also been developed on the other side of the Atlantic and has resulted in the Chicago School of competition theory. A study of this last concept of competition and the possibilities left for integration conclude this chapter.

### 2.4 The Chicago School

With the meagre results of American firms came the realisation that the Harvard School was not infallible. Interference in the structure of a market proved to be no certain recipe for good results or performance. This realisation, which ate away at much of the empirical foundations of the Harvard School's central paradigm, together with the policy of a new administration\textsuperscript{75} resulted in a greater influence for the Chicago School of competition theory. Quite the opposite of the Harvard School, which was characterised by state influence on the market, the pendulum had now swung to the other side. The state had to exercise little or no influence at all on the market. Competition theory embedded a firm believe in the self-healing properties of the market. Inefficient economic entities would be exterminated through a survival of the fittest and Darwinism thus found its way into economics. The self-healing power of the market would even remove imperfections from a market. The instrumental character of competition was brought down to just one goal which

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\textsuperscript{71} See page 24 supra.

\textsuperscript{72} This occurred in a discussion between Tolksdorf and Hoppmann in the \textit{Jahrbuch für Nationalökonomie und Statistik} from 1969 on.

\textsuperscript{73} Möschel 1981, p. 99 et seq.

\textsuperscript{74} Möschel 1981, p. 100.

\textsuperscript{75} The so-called 'Reaganomics'
was consumer welfare. Other, non-economic goals were denied. With the maximisation of consumer welfare as sole objective, productive and allocative efficiency became the standards by which the market behaviour in individual cases was measured. This was done through the models of price theory. It was not tried to enact these on the real market but they did function as a guide light. Many forms of behaviour were translated into economic terms and all economic behaviour was consequently judged on the basis of the effects it would have on efficiency. This use of efficiency as standard was most obvious with regard to competition law. Bork in particular is very explicit in this respect when he states:

'The whole task of antitrust can be summed up as the effort to improve allocative efficiency without impairing productive efficiency so greatly as to produce either no gain or a net loss in consumer welfare.' [Emphasis added]

The reliance on efficiency, economically rational behaviour coupled to a firm believe in the long term effectiveness of the market resulted in a restrictive stance towards government interference on the market. In general, measures affecting the structure of the market were rejected because the present day situation of the market was considered a reflection of the economic Darwinism. Bork distinguishes two forms of growth: internal and external (through horizontal mergers), he judged both to be expressions of greater efficiency and thus compatible with competition. With regard to market behaviour Chicago-school advocates a more interventionist approach. Collusion on a market is judged differently depending on whether it is horizontal or vertical. Where horizontal agreements are generally regarded detrimental to competition and consequently

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77 As Bork makes very obvious in his book by comparing the enacting of these theories on a real market to the detonation of several nuclear bombs, Bork 1973, p. 92; Cf. Hildebrand 1998, p. 170.
78 Posner, in his book on the economic analysis of law, indicates the economic side of several, diverse, forms of behaviour covered by law. These include family law, sexual regulation, criminal law, employment law, safety and health law and many others. The criteria by which behaviour in these fields is to be judged is whether it increases or decreases efficiency. Posner 1992; Cf. Schmidt 1991, p. 19.
79 Bork 1978, p. 91.
80 Survival of the fittest, size was considered to be a reflection of effectiveness, Schmidt & Rittaler 1989, p. XIII.
81 Bork 1978, p. 164, 197 and 198 et seq.
82 Horizontal collusion takes place between economic entities operating at the same level of the production or distribution chain (e.g. two manufacturers or two retailers). Vertical collusion involves economic entities that are active at different levels of the distribution chain (e.g. a manufacturer, distributor and a retailer).
prohibited, a more lenient approach is taken towards vertical collusion among competitors. The creation of barriers to entry in a vertical relationship is generally deemed economically irrational and therefore considered not to occur with an exclusionary intention. When such practices occur nonetheless they are thought to increase the efficiency of the competitor.

This restrictive approach to government intervention, believe in the self-healing powers of the market and adherence to consumer welfare as the single goal of competition policy are reflected in the stance taken towards the integration of environmental consideration into competition law.

Defining consumer welfare as the single goal of competition policy has obvious implications for the integration of non-economic objective. When a policy is aimed at achieving such a narrowly defined goal, there is very limited or no room at all to take other consideration into account. Bork expressly excludes 'ethical and sumptual components' from the term consumer welfare as it is used in competition law. The competitive process is seen as distinct from the consumer choice itself, it merely permits consumers to define by their expression of wants in the marketplace what things they regard as wealth. According to Schmidt and Rittaler this neglects the fact that externalities can be seen as inefficiencies and hence decrease consumer welfare. Furthermore Bork expressly excludes the integration of environmental considerations from the competition litigation. Or, as he puts it:

'Antitrust litigation is not a process for deciding who can be rich or poor, nor can it decide how much wealth should be expended to reduce pollution [...]'  

Bork thus recognises the problem of environmental pollution, but the exclusion of environmental considerations is not even half the solution. Posner does propose some solutions to pollution which can only be qualified as interactive but nowhere as truly integrative. Could it then be argued that the concept of consumer welfare entails non-economic aspects as well? A closer look at the

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81 See, critically with regard to the Chicago school's approach to vertical integration in merger cases: Lofaro & Ridyard 2002, p. 151.
84 This, of course, greatly underestimates the impact such practices might have on competition as a whole, Schmidt 1993, p.23.
85 Bork 1978, p. 90.
86 Bork 1978, p. 90.
87 Schmidt & Rittaler 1989, p. 50
89 Bork 1978, p. 90, 91.
90 These solutions entail the use of market based instruments such as auctions and pollution taxation to internalise external costs. Posner 1992, p. 61 et seq., 367 et seq.
treatment of this concept by Bork clarifies the very economic nature of this
goal.\footnote{Bork 1978, p. 90.} It is contrasted with meta- or non-economic goals such as the preserva-
tion of a number of smaller enterprises. The responsibility for environmental
protection is left entirely with the legislator who can chose to follow the regul-
atory path in trying to influence environmental behaviour or by influencing
consumer choice in that their 'wants' should be changed to include 'environment-
mental wants'.

This paragraph can be so short because of the clear and absolute rejection
of the integration of environmental concerns into competition law and policy.
According to the Chicago School environmental considerations simply do not
belong in the framework concerning competition.

2.5 A European concept of competition?

Competition authorities in the United States have accepted
the Chicago School.\footnote{See with regard to Chicago and post-Chicagoans: Hildebrand 2001, p. 152.} Moreover, as the recent row over the diverging deci-
sions in the GE/Honeywell merger shows, Europe and the U.S. have different
standards by which they judge competition cases.\footnote{It should, however, be kept in mind that the divergence in GE/Honeywell is more the odd one out than the norm.} This leads to the question
what the European concept of competition is. As far as the theories underly-
ing the application of competition law are concerned, many of the same economic
instruments are used on both sides of the Atlantic (e.g. predatory pricing tests,
contestability). The divergence can probably be traced back the U.S. authorities' reliance on economic welfare as the ultimate objective of competition policy and
the resulting more less stringent approach to larger companies because of the
economies of scale that are possible in such enterprises.\footnote{Cf. Schaub in Ehlermann & Laudati 1998, p. 125.} The European Com-
mission, as will be shown below in Part II, is more concerned with maintaining
competition itself thereby ensuring optimal welfare.\footnote{See further: Monti 2002, p. 1059 et seq.}

2.6 Competition and the inevitable exceptions to it

On the basis of this overview of doctrines and schools concern-
ing the concept of competition a number of observations may be made. For
one, there does not appear to be one concept of competition that is universally
accepted. Even though it is commonly accepted that competition is not an end in itself but only an instrument to achieve objectives such as allocative and dynamic efficiency, economic welfare or welfare in a more general sense, the choice of these objectives is all but universal.\(^6\) Furthermore, it could also be seen that economists have ever since Adam Smith been trying to define the intensity or degree of competition that would best attain these objectives. At the same time they have tried to identify those areas of the economy where competition does not achieve optimal results. One such notable area concerns the natural monopolies. Another can be seen where there are external effects (positive or negative). Natural monopolies and external effects are likely to occur wherever environmental protection plays an important role. This is why unleashing unmitigated competition in cases where environmental protection is involved is often counter-productive, both in terms of competition as well as environmental protection. Consider, for example, the case where the producers of a certain good agree to cooperate in order to take back and recycle the products that they have marketed once these products have reached their end of life and are thus considered waste by the consumers. Such an initiative will involve setting up a fine-meshed collection network with large sunk costs.\(^7\) In general, such organisations tend have the properties of a natural monopoly.\(^8\) Moreover, if left to the individual parties, the environmental goal would probably not be achieved since the environmental benefit is external. Not all consumers are willing to pay extra for this benefit whilst there are actual costs for the parties who undertake the environmental action. In this situation, all it takes is one free rider to stop the parties from protecting the environment.\(^9\) The obvious solution to this free rider problem would be for the parties to commit themselves to the protection of the environment whilst ensuring the mutual commitment through a controlling mechanism. Applying unadulterated competition law to this situation would mean that there is a restriction of competition since the parties have bounds themselves with regard to what they will do with their waste products. In terms of competition, this means the loss of a potential extra aspect with regard to which competition is possible. Moreover, the controlling mechanism may very well also have some anti-competitive effects. From the environmental perspective, looking at this situation purely from a competition point of view would probably mean the end of the initiative and thus a lower level of environmental protection. Essentially, the fact that environmental protection currently consti-
tutes an externality means that the objective of trying to achieve competition cannot be applied unchecked. For this to be possible, there first needs to an internalisation of environmental costs. This internalisation is one of the objectives of environmental policy.