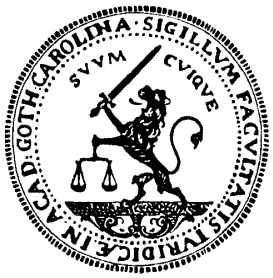

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The Effect of Barriers to Entry on the Concept of Market Power under Article 82

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Contents

Summary

The main instrument to combat the abuse of a dominant position within the European Union is Article 82 ECT. It is not intended to prohibit dominance *per se*, but rather to offer a vehicle for the reaction to actual or potential abuses of undertakings. In order for the Article to come into play the prime requirement is that the undertaking undergoing scrutiny is indeed dominant.

Dominance is a relative concept. The prime method of trying to catch a meaning of the concept is by calculating an undertaking's market power in relation to its competitors on the relevant market. When delimiting a relevant market there are three significant aspects that should be considered. First comes the delimiting of the relevant product market, important since it will give an answer to which range of products or services that should be viewed as belonging to the same market. Secondly, comes the determining of the geographical spread of the market. The relevant geographical market is the area in which the objective conditions are the same for all traders for the relevant range of products. Finally, the temporal market, i.e. the effect of time and seasonal changes on the relevant product and geographical market must be taken into account in the process.

When the relevant market is defined, the undertakings market power must be assessed. An undertaking is considered dominant if it can act in relative disregard of its competitors and customers on a substantial part of the common market. In order to determine if that is the case, the size of the market share of the identified product range first has to be established. It is of importance in this assessment to look at the absolute market share and, the relative market share as well as the maintenance of market share over time. However, this will still not present an exhaustive analysis as it fails to take efficiency, structural, and competitive aspects into account. Therefore such other factors will play an important role and one group of these are referred to as barriers to entry. These are the factors that makes it difficult for other undertakings to enter and penetrate a relevant market where there is a strong undertaking established. Other structural factors such as a wide geographical presence as well as behavioral factors may also have a role to play.

There is much controversy surrounding the concept of barriers to entry. The concept ultimately revolves around the central issue of what factors would allow an established undertaking to reap profit in excess of normal profit levels and artificially exclude equally, or more, efficient undertakings. A narrow definition of entry barriers will have the effect of excluding undertakings from the reach of Article 82, as they may be found to possess too little market power to be considered dominant. Thus they will be able to carry on with their abusive behavior unchecked. On the other hand, a broad definition risks to include factors not related to any artificial constraint on

competition, thereby punishing a firm for its efficiency and demoting the aim of competition law.

The Court and the Commission have given the concept of barriers to entry a relatively broad scope. This approach has been questioned as it may fail to take economic thinking into consideration. It is feared that the broad view does not fully distinguish between artificial clogs on competition and advantages achieved legitimately through superior efficiency.

The importance of taking the factors dealt with as barriers to entry into account when assessing market power is, however, not questioned. It enhances the quality of the process of determining dominance by adding more aspects to the assessment. The aspects on this process introduced by the concept of barriers to entry are also becoming increasingly important, and so in particular regarding the effect of having superior technology and know-how. However, in order to use a barrier effectively in the process a relative value of some sort has to be attributed to it. This is rather difficult in the case of know-how, as no general rule of evaluation exists. By turning to a few Swedish tort cases I have tried to find examples of how this issue has been dealt with. Two approaches has been demonstrated, neither of them flawless. However, the approach taking account of market evaluation of the know-how seems preferable to the one attributing it a value based solely on development costs.

I believe that the concept of barriers to entry has a given place when assessing market power, even if it is contains certain ambiguity. However, it would be an improvement if the Court and the Commission paid more attention to efficiency arguments and economic aspects than they have done so far.

Preface

I would like to thank my family and friends for their unwavering support and encouragement throughout my studies. In the process of writing this thesis I have received invaluable help and suggestions from Hans Sandberg and Andreas Öhlin, to whom I would like to express my deepest gratitude. Finally, I would like to direct a special thought to Professor Reinhold Fahlbeck of the Faculty of Law at the University of Lund, who has been the main source of inspiration, as well as an excellent tutor during my work. Needless to say, any errors or omissions are strictly my own and should not be attributed to the persons mentioned above.

Lund, the 16th of January, 2002.

Abbreviations

AD	Arbetsdomstolen
CFI	European Court of First Instance
CML Rev	Common Market Law Review
ECJ	European Court of Justice
ECLR	European Competition Law Review
ECR	European Court Reports
ECT	European Community Treaty (post-Amsterdam article numbers)
EIPR	European Intellectual Property Review
EU	European Union
HD	Högsta domstolen
NJA	Nytt juridiskt arkiv
OJ	Official Journal of the European Communities
SSNIP	Small but significant and non-transitory increase in price
UK	United Kingdom
US	United States of America

1 Introduction

1.1 Purpose

This thesis is intended to provide a somewhat deeper insight into the concept of dominance as such within the meaning of Article 82 ECT. It is by no means to be taken as an analysis of the full scope of Article 82, nor is it dealing with the multi-faceted concept of abuse of dominance. Thus, my effort has rather been focused on showing in which way the ECJ and the Commission has approached the concept of dominance. My ambition has also been to present and comment on the factors that have been considered relevant in this process, and to what extent there have been diverging opinions regarding the weight attributed to these factors. The main body of the text below is devoted to the concept of barriers to entry, the role these barriers have in the process of determining dominance and how they have been defined and interpreted. The interesting area how legislation originally designed to counteract the ills of the industrial era has proved to be efficient in a more knowledge-based industrial environment has also been touched upon.

Given the complexity and nearly endless controversy surrounding different aspects of Article 82, the narrowing of the relevant scope for this thesis has been of major importance. I have chosen not to delve on Article 82 in general, therefore there is virtually no discussion regarding the various aspects of abuse or the ultimate application area of the Article as such. Nor have I described the legislative history of the Article. It is the process involved in the test to establish if an undertaking is dominant or not that has been my focal interest. Hence I have tried to deal strictly with the issues surrounding this process. Since even this rather narrow approach is relatively broad, I have been forced to leave out the debate dealing with dominance in merger related cases as well as any discussion about the concept of joint dominance. The focus chosen should not be understood as one seeking to diminish the importance of the other aspects of Article 82, but they become of limited relevance to the topic of this thesis reflecting the approach chosen, and are therefore left out.

With the concept of dominance being a multi-faceted one, looking at different aspects thereof separately has been the approach selected. As a consequence, most of my effort have been spent on the controversial areas, rather than restating clear and uncontested case law. Thus, much emphasis is put on the concept of barriers to entry, while market share –although attributed a greater significance in practice– has merely been briefly touched. With this approach, I hope that the complexity of the concept of dominance will be appreciated and the narrow portion thereof that I will try to present more clearly demonstrated.

1.2 Method

In order to find answers to the questions that will be asked below, I have tried to approach the subject from a critical perspective. The intention is to provide an increased understanding on how the concept of dominance has been determined and interpreted up to this day, as well as to demonstrate how such assessments may be improved and what issues constitute the sources of the main controversies surrounding this concept. I have also chosen to start out by describing the larger setting for the concept of dominance, subsequently narrowing the scope for an increasingly more detailed account. By doing that my intention was to increase the coherence and clarity of this thesis.

I have tried to remain critical and objective as far as possible in regard to the research material underlying this work. However, I lay no claim to have been totally independent of the sources available to me. Apart from the natural point of departure in the treaty text and various regulations and notices, much of the input regarding the general process of determining dominance has been found in academic litterature. When it comes to the more specific issue of barriers to entry, it is the Court's and the Commission's decisions that have set the frame for the discussion. Court cases have been the foremost primary source. In addition I have made heavy use of articles providing important criticism of the decisions made. I have, as the work progressed, been forced to turn to sources apart from those strictly concerning law, which is natural since economic reasoning is of direct relevance to the issue dealt with. The relative diversity of sources used has hopefully contributed somewhat to the quality of this work.

1.3 Research Status

That the different aspects of Article 82 ECT has been subject of much scrutiny and debate is beyond any doubt. However, much effort seems to have been spent on the different aspects of abuse, while dominance as such, even if thoroughly researched, seems somewhat placed on the sideline. In my work I have had great help of general, as well as of highly specialized, work of academic writers. This has proved a great support especially as it aided in rapidly understanding the structure and issues surrounding the concept of dominance and Article 82 in general. Even if the main debate on the issue of barriers to entry seems to have taken place some years ago, there is no clear indication that any significant changes in the Court's and Commissions approach has been made reflecting this debate or for any other reasons. Thus, much of the described problems remain open to be dealt with in the future.

1.4 General Outline

I decided to start by giving a brief description of Article 82 ECT in general to serve as a backdrop for the subsequent presentation. With this frame in place, I sought to narrow the scope, focusing on the process of determining dominance in relation to a market, including a presentation of the factors involved in the assessment of market power as the gliding scale leading up to the finding of dominance. The issue regarding the significance of barriers to entry to this assessment is the main topic of discussion and it is supplemented by an attempt to show the relative difficulty of attributing a well defined and consistent value to certain individual barriers. In the very last part of this thesis, I attempt to analyze my findings and also to attempt to present my conclusion on the subject in a clear and concise manner.

2 Abuse of a Dominant Position

When an undertaking manages to become dominant on its particular market a very delicate situation arises from the perspective of the anti-trust regulatory bodies. A balance act must be made between putting a check on the successful undertaking's behavior on one hand, and not to strangle the incentive for the undertaking to increase efficiency and actively strive for maintaining the market leading position on the other. Hence, it is not the dominant position per se that is the issue of concern to the EC, but rather the behavior on the market place of the individual undertakings with a dominant position. This is the focus of the EC competition legislation in this particular area.

The main instrument to combat the abuse of a dominant position within the EU is Article 82 ECT:

> 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 insofar 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;
> (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 to 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 the contracts.

As can be easily derived from this wording, the focus of the Article is on the abusive conduct of a single firm with a dominant position, or in certain instances, several firms that together share a dominant position. This contrasts sharply to the prohibition of distortion of competition through collaboration as seen in Article 81 ECT. Even if the natural target for Article 82 is the undertaking acting in a monopoly situation, other undertakings, not having reach that market position, will also fall within the scope of the Article if certain criteria are met.[1] It should be stressed that mere dominance will not be sufficient to make the Article bear; one has to find that certain actions of such an undertaking constitute abuse. Rather than containing an exhaustive list of all instances which could be considered abuse of a dominant position, the Article should be read, according to the ECJ, as merely providing examples of prohibited behavior.[2]

[1] Lane, Robert, *EC Competition Law*, p. 137.
[2] C-6/72 *Europemballage Corporation and Continental Can v Comission* [1973] ECR 215, at para. 26.

There are three distinct criteria that have to be met in order for the Article to bite and, consequently, an undertaking's actions to be prohibited as abusive. Dominance, abuse, and effect on the trade between Member States are, taken together, what Article 82 was forged to combat. I will briefly outline the definition of these criteria before turning my attention to the focal point of this work, being how market power is determined, and the effect of barriers to entry on such an assessment.

2.1 Dominant Position

An undertaking may act in whatever manner it pleases, even those that clearly are abusive, as long as it is not considered dominant on the market severed. Determining dominance is therefore pivotal. Dominance is best described as the ability of a firm to restrict output and increase prices, or only to increase price, above the equilibrium price of a product on the market severed, without loosing market shares to actual or potential competitors.[3] Hence, the term does not exist in the abstract, but must be found in relation to a market.[4] The procedure one will have to follow in order to prepare a successful attack –or defense– under Article 82 based on the concept of possibility of, or power to, affecting and in fact controlling the equilibrium prices is very complicated and will need involvement of expert economists as well as legal advisors.[5]

It is the different aspects of dominance that is the focus of this work. The assessment thereof is complex and multifaceted as will be shown below. Before going into more details regarding this issue, I will continue to outline the definition of the two other criteria of Article 82.

2.2 Abuse

Even though Article 82 itself does not provide any definition of what constitutes an abuse of a dominant position, there is but little uncertainty left when available court precedents are considered. Abuse, according to these decisions, is to be seen as a multi-faceted concept, covering both exclusionary and exploitative practices by dominant undertakings.[6] While the exclusionary practice is mainly directed at actually or potentially harming or inhibiting an undertaking's competitors, the exploitative practice harms the consumers.[7] As indicated by this twofaced area of possible harmful effects, there is a grave problem; to whom shall the treaty provide

[3] Faull, Jonathan, Ali Nickpay, *The EC Law of Competition*, p. 122.
[4] Whish, Richard, *EC Competition Law*, p. 279.
[5] Whish, p. 278.
[6] Faull, Nikpay, p. 146.
[7] Craig, Paul, Graínne de Burca, *EU Law Text, Cases, and Materials*, p. 955.

supreme protection if the interests of the consumers and of the competitors clashes?

A good example of such a conflict of interest between consumers and the competitive market structure is to be found in the *Commercial Solvents* case.[8] Here CSC refused to supply as it intended to integrate vertically downstream and claimed to need all raw material in its own production. The decision to enter a market downstream is only rational from an anti-trust perspective if an undertaking thereby can increase efficiency and cut cost compared to the incumbent firm. If successful, the consumer will in such a case benefit from the product being cheaper. However, as in this case, the structure of the competitive market might be weakened. This was not deemed to be tolerable, while CSC eliminated all competition from Zoja by its refusal to supply.[9] The Court declared the refusal to be contrary to the Treaty. With this case a clear signal was sent out by the ECJ. The Court will first and foremost act as the protector of the competitive market rather than of the consumer interest.[10]

It is inherent in a workable competitive structure that it will be the consumer that in the long run will reap the benefits from it, through low prices and efficient producers. Looking at the problem from that point of view there can be no conflict of interest between the consumer and the protection of a competitive market structure. However, a problem arises when a finished-product market is of a nature that it can only support one firm. Also, as was the case in *Commercial Solvents* where the actions taken by the dominant undertaking –the refusal to supply– resulted in a total elimination of competition on a particular market, the conflict of interest was lifted to the foreground.[11] Only in those cases can one find a genuine conflict of interest between the consumers and competitors of a dominant firm. While the US courts have chosen to strive for a protection of consumers, the ECJ and Commission have been rather concerned with the competitive situation for small and medium sized enterprises, a concern not always being in line with economic efficiency arguments. By an active use of Article 82 proceedings, together with a wide scope of the Article, the risk for hampering large undertakings competitive powers will increase, regardless if they have reached their positions due to superior efficiency or not. The Commission

[8] Joined cases C-6 and 7/73, *Institutio Chemioterapico Italiano SpA and Commercial Solvents v. Commission* [1974] ECR 223. The Italian company Zoja bought raw material from a daughter to Commercial Solvents Corporation (CSC), a dominant undertaking in the market of those specific raw materials. As price increased Zoja found an alternative source of supply in CSC:s other customers, this source dried up as the resellers were forbidden to sell to Zoja by CSC. CSC then refused to supply raw material to Zoja giving the reason that it needed the raw material it self in order to integrate vertically down-market. CSC claimed it would need the material for its own production.
[9] Ibid., at para. 25.
[10] Craig, de Búrca, p. 959.
[11] Ibid., p. 960.

has been accused of condemning so-called dominant firms without a proper economic analysis as soon as it sees a possible effect on small firms.[12]

As stated above, the concept of abuse is an objective one. Therefore, it is of no relevance if the abuse was intended or not when determining if an action falls within the scope of the Article.[13] However, intent will be of crucial importance when it comes to the process of determining fines, where abuse emanating out of negligence is more likely to attract a less severe financial repercussion. As a matter of fact, negligence, and acts committed unintentionally, are explicitly considered attenuating circumstances by the Commission.[14] However, even if it is relevant, lack of intent can never be put forward as a decisive defense in an infringement case under Article 82.

Finally, it is important to bear in mind that the abusive ways of behavior are not all enumerated in the Article. The list should be seen as providing examples and guidelines only and it is the ECJ that will set (and possibly expand) the boundaries of the term.[15] That exclusionary, as well as exploitative behavior fall squarely under the Article is eloquently set out in *Hoffman-La Roche.*[16] It was with this case the two particular elements that constitute exclusionary abuse were first spelled out. Firstly, that only the use of methods diverting from those which condition normal competition constitutes abuse. Secondly, the use of those methods must have the effect of either hindering the growth of competition or the maintaining of still existing competition. It is thus the Court that bears the ultimate burden of defining the scope of the term abuse.

2.3 Effect on Inter-state Trade

The third criteria, is the one dealing with the requirement of effects on inter-state trade. There thus has to be an effect on trade between Member States before Article 82 can be applicable. It should be noted though, that the effect on trade between Member States does not have to be negative or detrimental in any way. Neither does Article 82 require that trade actually has been affected. A potential effect of the restricted practice is enough for the Article to bite.[17] As this is the case with Article 81 as well, they share the same procedures of how to determine such an effect. The two principal ways of

[12] Turnbull, Sarah: "Barriers to Entry, Article 86 and the Abuse of a Dominant Position: An Economic Critique of European Community Competition Law", *ECLR96*, p. 102.
[13] Faull, Nickpay, p. 147.
[14] Commission Notice on the guidelines on the method of setting fines imposed pursuant to Article 15 (2) of Regulation No 17 and 65 (5) of the ECSC Treaty OJ [1998] C9/3, at para. 3.
[15] Lundgaard Hansen, Kim, Lars Kjølbye, Henrik Saugmandsgaard Øe, *EU-konkurrenceretten*, p. 148.
[16] C-85/76 *Hoffman-La Roche & Co AG v Commission* [1979] ECR 461, at para. 91.
[17] Lundgaard Hansen et al., p. 196.

verifying this are to look at the flow or pattern of trade, or to see if there is an alteration of the competitive structure.[18]

In order for article 82 to come into effect, the flow or pattern of trade must be caused, or be likely to be caused, to develop in a manner divergent from what would have been the case in the absence of the conduct concerned. The ECJ has chosen to give this concept a rather wide interpretation. The effect on trade need not be negative in any way, nor is it required that trade is actually affected. Most of the cases regarding this issue have arisen under Article 81. A potential effect on trade will be sufficient for the Article to come into effect. Even the trade in intermediate products, not themselves traded between the Member States, may be seen as affecting the trade if the final product will be traded within the Community.[19]

If an undertaking is predominant in the entire territory of a Member State, its actions are likely to affect inter-state trade even if there is no export. This follows as a logical conclusion provided the undertaking is able to use its dominant position in a Member State to the detriment of effective competition, i.e. if its predominant position is indeed altering the pattern of trade. By doing this, the dominant undertaking may effectively foreclose the market and competition (as well as consumers) will suffer. This has long been the ground for an almost *per se* analysis of "national" agreements.[20] However, nowadays this fact alone is not enough to invoke the Article. The case law regarding similar situations falling under Article 81 is extensive. In *Bagnasco v Banca Populara di Novara,*[21] the Court adhered to the Commission's findings that uniform bank conditions regarding contracts for the opening of current account credit facilities were not liable to affect intra-community trade. Thus, the mere fact that an agreement covers a particular Member State will not in itself mean that trade has been affected. This finding in respect to Article 81 is equally relevant to the interpretation of Article 82.[22]

The second approach, more relevant in Article 82 proceedings, is to look at whether the conduct of a dominant undertaking brings changes to the competitive structure. This test is of particular importance when an undertaking has got considerable market power, which will enable it to act independently on the relevant market. Its behavior will be vigilantly monitored by both competing undertakings as well as EC-organs, who are deemed to react swiftly to abusive behavior.[23] The adamant stance of the Court cannot be misinterpreted, and a good example is to be found in *United Brands* where the ECJ held that:

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[18] Faull, Nickpay, p. 96.
[19] Ibid., p. 97.
[20] Ibid., p. 98.
[21] Joined Cases C-215 and C-216/96 *Carlo Bagnasco v Banca Popolare di Nova* and *Cassa di Genova e Imperia* [1999] ECR I-135, at paras. 47 *et seq.*
[22] Lundgaard Hansen et al., p. 196.
[23] Whish, p. 277.

"…if the occupier of a dominant position, established in the common market, aims at eliminating a competitor who is also established in the common market, it is immaterial whether this behaviour relates to trade between member states once it has been shown that such elimination will have repercussions on the pattern of competition in the common market."[24]

This clearly means that by actions damaging to the competitive structure of the Community an undertaking puts itself under the scope of Article 82, regardless of whether or not its actions affect the inter-state trade. Thus, as we have previously seen, the Court will fight for a workable competitive structure within the Community. It is the structure itself that will be protected, even to the detriment of other interests.

[24] C-27/76 *United Brands Company and United Brands Continental v Comission* [1978] ECR 207, at para. 201.

3 Dominance

As indicated above the main focus for the perspective of this thesis is to penetrate the concept of dominance. This perspective concerns the power to quash effective competition, which can best be described as "dominance". The term entails the power of a firm to behave independently from its competitors on a defined market. Dominance may also be displayed in that there is no alternative for other undertakings to deal with any party, but the dominant one.[25] Dominance is not an absolute term, but rather a matter of degree. It is also important to separate dominance from monopoly, as a dominant position can be held even with active competitors.[26] This rather vague area in which dominance can be found raises one fundamental question: How does one go about to find the criteria that needs to be fulfilled in order to establish an undertaking's market power, or in other words, the undertaking's degree of relevant dominance?

As dominance does not exist in the abstract, a natural starting point is to look at the relevant market. The larger the relevant market, the less the chance for a dominant position, and if there is no dominant position Article 82 will not be applicable. The concept of the "market" can be divided into three subgroups: the product market, the geographical market and, in certain instances, the temporal market.[27]

Only after establishing the relevant market, is it possible to determine weather or not a dominant firm is acting in relative disregard of its competitors.[28] Having determined the relevant market from the three aspects mentioned above one must consider what constitute dominance, i.e. significant market power. I will attempt to give a detailed description of the procedure of determining dominance. It will range from defining the relevant market to the concept of market power and end with a look at what constitutes a substantial part of the common market. Especially the economic concept of market power will be scrutinized and its different aspects pondered upon, since it is so closely aligned to the legal concept of dominance.

[25] Bellamy, Christopher W., Graham D. Child, *Common Market Law of Competition*, p. 390.
[26] Faull, Nickpay, p. 122.
[27] Lundgaard Hansen et al., p. 114.
[28] See Commission Notice on the definition of the relevant market for the purposes of Community competition law OJ [1997] C372/5.

3.1 Determining the Relevant Market

3.1.1 The Relevant Product Market

Market power can only be determined in reference to a specific product or service. The definition of a relevant market is therefore a very important tool for aiding the competitive assessment by restricting attention only to those products or services that have a significant impact on competition.[29] In order to separate a specific class of products or services, which are to constitute the relevant market in a competition assessment, one will have to look at a multitude of factors.

A definite test procedure on the issue of the delimiting of a product market has yet to be produced by the Court. However, it is clear that the ECJ and the Commission have regarded the problem as essentially a question of interchangeability between products.[30] What is pivotal is how this interchangeability should be measured, and weather it is the purchaser's or the supplier's views that should be taken into account.

3.1.1.1 Demand Side Substitutability

Substitutability is by and large a question about cross-elasticity of different products. If an increase in price on a product, for example spaghetti, causes the buyers to switch to macaroni instead, these two products should be regarded as belonging to the same product market, i.e. be interchangeable.[31] It can be quite difficult to obtain correct data on the cross-elasticity of certain products. It would also be inappropriate to use cross-elasticity as the sole foundation for a finding of interchangeability. This has caused the Commission and Court to consider other factors as well in order to determine the interchangeability of products.[32]

The additional factors that are taken into account stems naturally from the buyers' perspective. It is after all the buyer side of the market definition we are discussing here. These factors include the physical characteristics of the two products, the price, and the intended use. In *United Brands v Commission* the Court looked at the seedlessness, softness, taste and handling quality of the banana in order to distinguish it from the market of fruit in general.[33] As for the importance of price it is common knowledge that the general public would not consider a Rolex watch interchangeable with, for example, a Swatch watch, due to the significant difference in cost. The question of intended use is rather narrow as can be construed from the

[29] Bishop, Simon, Mike Walker, *Economics of E.C. Competition Law: Concepts Application and Measurement,* p. 47.
[30] C-27/76 *United Brands v Commission,* at para. 22; C-6/72 *Continental Can v Commission,* at para. 32.
[31] Craig, de Búrca, p. 943.
[32] Whish, p. 282.
[33] C-27/76 *United Brands v Commission,* at para. 31.

Commercial Solvents case, where the Court rejected the argument that another raw material could be used by Zoja to produce the same end product, and narrowed down the market to constitute nitropropane for which Zoja's industrial process was geared up to handle. A switch to another raw material, although possible, would be both difficult and expensive. The particular use for Zoja of nitropropane came to be determinative when finding the relevant product market.[34]

3.1.1.2 Supply Side Substitutability

Looking at the supply side of the product, one will have to focus on the possibility and feasibility of an undertaking to change its production from one product to another. If it is relatively easy and cost efficient to implement such a change, the two products in question will probably be regarded as belonging to the same relevant market. That both the Commission and the Court take the supply side substitutability into account has been readily demonstrated on numerous occasions.[35]

One example of this is the ECJ's reasoning in the *Michelin* case.[36] The Commission brought an action against Michelin alleging that the undertaking tried to tie customers by granting discounts on tyre sales that were not related to production cost. A controversial issue was whether the relevant product market was new replacement tyres for lorries, busses and similar vehicles, or if it also should include tires for cars and vans. One of the factors that made the Court opt for the narrow definition was the fact that the production technique and plant and tool requirements for producing heavy vehicle tyres are significantly different from those required for car tyres. Due to the financial cost and time expenditure it would take to modify a plant to produce the other type of tyres the Court held that no elasticity of supply could be found. The conclusion was that heavy-vehicle tyres constituted a product market on its own.[37]

3.1.1.3 The Commission Notice on Market Defenition

In order to increase transparency and guide firms on how the Commission approaches matters of market definition a Notice has been issued.[38] In the Notice the Commission distinguishes between the investigation of a proposed concentration, which will deal with the prospective dominance, and other investigations that mainly concerns the past behavior of the undertaking. It also institutes a novel way of applying the principles of demand substitutability and supply substitutability.

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[34] Joined Cases C-6 and C-7/73, *Commercial Solvents v Commission*, at para. 15.
[35] See *Tetra Pak 1* (88/501) OJ [1988] L272/27, at paras. 36-38. *Eurofix-Bauco v Hilti* (88/138) OJ [1988] L65/19, at para. 55
[36] Case C-322/81, *Nederlandse Banden-Industrie Michelin NV v Commission* [1983] ECR 3461.
[37] Ibid., at para. 41.
[38] Commission Notice on the definition of relevant market for the purposes of Community competition law OJ [1997] C372/5.

The Commission has chosen to adopt the SSNIP-test[39] for determining the relevant market. According to this test, the relevant product market is considered to be the narrowest range of products that a hypothetical permanent monopolist will find it both possible and financially viable to institute a SSNIP on. If demand substitutability would be enough to make the increase unprofitable due to the resulting loss of sales, these additional product substitutes would be included in the relevant market as well.

Although a Notice cannot overrule ECJ decisions, it nevertheless presents an important signal of change. The Commission states that it will consider more facets of the market than has previously been done when only the mere use of product characteristics and intended use were used as benchmarks. A wider and less rigid way of determining the relevant market is now made available. However, one should bear in mind that the SSNIP test has yet to be applied by the ECJ and CFI.[40]

3.1.2 The Relevant Geographical Market

Which geographical area should be taken into account when determining dominance? As a general rule, the relevant geographical market consists of the entire EC. However, special factors may delimit the market.[41] These special factors include transport costs or lack of transport facilities, regulatory barriers such as legal monopolies, and cultural barriers like habits and commercial convenience.

In certain Court cases an unquestionable geographical limit has been found. This was the case in *British Telecommunications* where the issue was whether BT had abused its dominant position in dealings with message forwarding agencies in the UK. BT held an absolute monopoly in providing telecommunication services in the whole of UK, which therefore – quite understandable - was found to constitute the relevant geographical market.[42]

Not all cases are as easy to determine as *British Telecommunications.* It is not always clear what criteria the Court uses when defining the geographical market or what weight it allocates to the different criteria used. However, an overall statement is that the relevant geographical market must be an area in which the objective conditions for trading are the same for all traders.[43] Further guidance can be found in the Commission's *Notice on the definition of relevant market,* which, among other information, emphasizes the relevance of transport costs; if the cost of transport is too steep in

[39] Stands for "small but significant and non-transitory increase in price".
[40] Korah, Valentine, *An Introductory Guide to EC Competition Law and Practice,* p. 87.
[41] Devroe, Walter, *European Competition Law*, p. 72.
[42] *British Telecommunications* (82/861) OJ [1982] L360/36.
[43] Whish, p. 289.

comparison to the price of the product, the borders of the geographical market may be drawn narrowly.[44]

Delimiting of the geographical market has had a great impact on Sweden. The Commission has denied several proposed mergers between Swedish undertakings on account of them being contrary to the ECT's competition rules. However, these cases have involved the strengthening of an already established dominant position under the Merger Regulation[45] and are as such not directly of interest to this work. Even if Article 82 and the Merger Regulation both deal with dominance, they approach the matter in a fundamentally different way. While Article 82 is focused on the abusive conduct, i.e. the past behavior, of the dominant undertaking, the Merger Regulation is aimed at restricting the creation, or strengthening, of dominance as such and therefore requires a prospective analysis.[46]

3.1.3 The Temporal Market

The temporal quality, i.e. the effect of seasonal changes, of certain markets should not be overlooked. For many products and undertakings the competitive conditions will fluctuate depending on weather and season. As the EC is an integrated part of the global economy, one undertaking competing on this market may find itself in a dominant position and without rivals during certain parts of the year, and under fierce competition during other periods. It may very well be that an undertaking's actions will fall under Article 82 only during the part of the year dominance can be shown. Important to keep in mind is that the product market can have a strong temporal dimension, as consumer habits and technological progress will continue to shift product market boundaries over time.[47]

3.2 Market Power

After having laid the foundation by outlining the conceptual boundaries of the relevant product and geographical market as well as the temporal market, it is time to move on to the main theme for this presentation, i.e. the weight attributed to the finding of a high degree of market power on the relevant market. As monopoly as such is not required, the power of the allegedly dominant position is to be found by turning to more elusive factors. There may be an inclination to look exclusively at the market share of the undertaking and make a decision solely based on that figure, which would be a both easy and convenient solution. However, such a decision is likely to be inaccurate and may actually hurt rather than enhance protection

[44] Commission Notice on the definition of relevant market for the purposes of Community competition law, at para 50.
[45] Council Regulation 4064/89 as corrected and amended OJ [1990] L257/13.
[46] Faull, Nickpay, p. 124.
[47] Craig, de Búrca, p. 948.

of the competitive market structure. Not all undertakings that are dominant have a large market share, nor does a large market share imply dominance by itself.

A dominant position must be distinguished from oligopoly, which, even if it consists of large market shares, does not necessarily give the individual undertaking the power to act independent from its competitors.[48] On an oligopolistic market, as opposed to markets with other structures, the undertakings involved tend to be largely interdependent and to have a parallel behavior. This will cause the undertakings not to diverge too much from that parallel conduct, on account of the risk of being driven from the market by the competitors or otherwise loose market shares.

The legal test to determine dominance has been demonstrated by the Court on several occasions. It has been described as:

"…a position of economic strength enjoyed by an undertaking which enables it to hinder the maintenance of effective competition on the relevant market by allowing it to behave to an appreciable extent independently of its competitors and customers and ultimately of consumers."[49]

The scope of this test is to some extent broadened in *Hoffman La-Roche* where the Court, apart from stating that a large market share is an important factor when determining market power, stresses the necessity of taking several factors into account in a finding of dominance.[50] It is clear that conditions of entry to the market must be considered when appraising the dominant position on that relevant market.[51] A problem that has arisen is that the Court has stressed the importance of economic strength, i.e. the power to impede effective competition. This position, as it is not taking efficiency into account, may lead to the protection of less efficient undertakings competing with a more efficient dominant one, to the detriment of competition as a whole. Instead of expanding on its reasons for its definition of a dominant position, the Court has chosen to develop a list of relevant factors that implies a dominant position. Among these factors are barriers to entry.[52]

3.2.1 The Importance of Market Share

That the market share of an undertaking is relevant to a finding of dominance is by no means contested as such. The question is rather what percentage should be indicative of dominance, and weather one should take

[48] C-85/76 *Hoffman La-Roche v Commission*, at para. 39.
[49] C-322/81 *Michelin v Commission*, at para. 30; C-27/76 *United Brands v Commission*, at para. 65; C-85/76 *Hoffman La-Roche v Commission*, at para. 38.
[50] C-85/76 *Hoffman La-Roche v Commission*, at para 39.
[51] Commissions Notice on the definition of relevant market for the purposes of Community competition law, at paras. 20-24.
[52] Korah, *An Introductory Guide to EC Competition Law and Practice*, p. 94.

other factors into account at all. However, neither the Court nor the Commission has taken the view of attributing a specific percentage share of the market to have the effect of being the sole determinative factor, above which an undertaking is conclusively held to be dominant.[53] Neither does the mere fact that a firm enjoys a statutory monopoly exclude it from the provisions of Article 82.[54]

As market structures vary from one market to the other so does the importance of market share. A market share has three important aspects.[55]

- the absolute share, calculated on the overall market
- the relative share, which is determined by looking at the market strength of the competing undertakings
- the maintenance of market share over time

These factors are all highly relevant when determining an undertakings market power. I intend to give an account on what weight the Court has attributed to different market share percentages.

The Court regards large market shares as in themselves being evidence of a dominant position, if no exceptional circumstances are at hand.[56] It is crucial that this market share must have been held for a considerable amount of time. The importance given to different share size fluctuates. When, according to *Hoffman La-Roche,* a market share between 75 and 87% is held under a three-year period it will be considered so large as constituting evidence of a dominant position, a market share ranging between 84 and 90% over a similar period is viewed as proof of such a position.[57] That a market share above 50% is indicative of dominance has also been expressed in the *Akzo* case.[58] In the view of these findings it seems like the Court has created a presumption for dominance that can be overturned by the facts of the individual case.

As mentioned above, an important factor when assessing market power is the other market participants' shares. If the remaining market is fragmented, a smaller share of the market may constitute evidence of dominance. This was the case in *United Brands* as well as in *Hoffman La-Roche* in which the competitors relatively smaller shares was the ground for a finding of dominance as the undertakings shares were several times greater than the closest rival's. When the demand side of a market is heavily concentrated and the undertakings there have great leverage, as is the case when a purchase monopoly exists, even very high market shares of an undertaking at the producer level will not lead to a finding of dominance. The producing

[53] Faull, Nickpay, p. 125.
[54] Craig, de Búrca, p. 950.
[55] Bellamy, Child, p. 398.
[56] C-85/76 *Hoffman La-Roche v Commission*, at para. 56.
[57] Ibid., at para. 60.
[58] C-62/86 *AKZO Chemie BV v Commission* [1991] ECR I-3359, at para. 60.

undertaking will in such a case not be able to act independently from its customers, which is a criterion for dominance. Thus, the relative market share of the competitors will play a significant role in a market power assessment, but its importance may vary depending on the market structure.[59]

The period under which a large market share should be maintained will differ from case to case. Although, the Court has avoided setting a general rule as to which time span should be used, a three-year period was used for the market power assessment in *Hoffman La-Roche.* Any period less than three years might be considered too short for a high market share to be an indicator of dominance, especially on a dynamic market, while a five-year period in general should be considered sufficient.[60] It is the possibility for potential competitors to gain access to the relevant market that by and large will be determinative of the period of time market power must be held. If it can be expected that a new entrant, within a reasonable short amount of time, will be able to provide competition and undercut the incumbent undertaking's market position, then dominance is not at hand.[61] Hence, a large market share in a market with low barriers to entry will not as such be considered adequate evidence of a dominant position.[62]

There are problems with a market power assessment based solely on market shares as this approach often fails to be a substitute for a full economic analysis of dominance. First of all, maintenance of a large market share tells little about the competitive process, it should rather be the structural reasons and pressures that is determinative of the undertaking's decisions regarding output and price that should be scrutinized. Secondly, the market share does not tell us anything about the relative efficiency of the undertaking. Neither will this approach let us know if a similar market share can be sustained in the future. Thirdly, market share figures cannot measure potential competition. An allegedly dominant undertaking may be severely restrained by the threat of competitors entering the market if a profitable opportunity arises, and can therefore not act independently on the market.[63] It is clear that we have to turn to other factors as well in order to make an accurate assessment of an undertaking's actual market power.

3.2.2 Barriers to Entry

Market share by itself is recognized as an imperfect measure of market power. Despite the consensus on that particular issue, it still remains highly controversial to what extent other factors, such as different barriers to entry, should be taken into account in the process of assessing market power. In

[59] Lundgaard Hansen et al., p. 132.
[60] Bellamy, Child, p. 400.
[61] Lundgaard Hansen et al., p. 133.
[62] Faull, Nickpay, p. 127.
[63] Bellamy, Child, p. 400-401.

order to understand the controversy one must first grasp the concept. A barrier to entry can be described as anything that prevents a potential new entrant, being at least as efficient as the incumbent firm, to enter a relevant market.[64] In other words, barriers to entry are the factors that render it difficult for other firms to enter and penetrate a relevant market. This is a very far-reaching application of the concept, and it should, in the case of competition law, be streamlined.

It is vital to bear in mind the difficulty inherent in the process of clearly defining what constitute a barrier to entry, mainly because what first seems to be a barrier may be the fruit of the incumbent undertaking's superior efficiency on the market. Due to its efficiency a firm may gain knowledge, valuable plants, advanced equipment and goodwill, all of which will make a new entry on the market more difficult for other firms that do not yet posses all this. As these factors by and large are manifestations of a firms' superior efficiency, or effective competitive behavior, they should, according to some, not be taken into account in a market power assessment under Article 82.[65]

There are two schools of thoughts regarding the importance one should attach to barriers to entry. To one group, it is a broad concept that should embrace all encumbrances on market penetration. This results in turn, that more undertakings will be regarded as dominant and fall under the scope of Article 82. However, the finding of dominance does not mean that Article 82 will come into effect, as dominance *per se* is not forbidden. The other group strives for a more narrow definition, excluding factors that can be attributed to an incumbent firm's successful competitive behavior. By doing this they aim at distinguishing the cases in which legitimate competitive behavior has determined the actual market power, and the instances in which the market power has been maintained through illegitimate means.[66] I will return to the issue of barriers to entry in an independent chapter for a more in depth analysis.

3.2.3 Other Relevant Factors

Apart from market share and barriers to entry a multitude of other factors may play a role when determining dominance. They are best divided into two separate groups, structural factors, relating to the undertakings actual structure, and behavioral factors, dealing with the undertakings actions on the market. I will give you examples of some of these factors that the Commission and the Court have taken into account in their assessments of dominance.

[64] Bishop, Walker, p. 301.
[65] Craig, de Búrca, p. 951.
[66] Ibid., p. 951.

Structural factors that are taken into account are several. One factor that has been used when determining dominance is the sheer size of an undertaking. However, this was dismissed as a criterion by the Court in *Hoffman La-Roche*[67], largely due to the fact that, since the undertaking was operating in several different and from each other independent markets, this could not ordinarily lead to a conclusion of dominance in one of these markets. In *Hoffman La-Roche* it could not even be used for corroborating potential dominance based on high market shares.

A wide geographical presence may sometimes be important when determining dominance. This is the case when a corporation can benefit from group synergy effects at different levels, which will increase the undertaking's ability to act in relative disregard of its competitors. The Court took this fact into account in *Michelin*[68] when attributing weight to the advantages the undertaking seemed to gain by its subsidiaries throughout Europe and the world. The importance bestowed upon a wide geographical presence under Article 82 has also been addressed by the Commission in *United Brands* and *Van den Bergh Foods*[69]. Working from the opposite side of this spectrum is the Commission's finding that an undertaking with a large nominal share of the market may not be considered dominant when competing with large multinational groups.[70]

An undertaking carrying a wide range of products may more easily be found to be dominant. This is the case if it can reduce cost by utilizing its product scope, or by offering a full line of products to its customers. In the latter case, the undertaking will be able to minimize transaction and supply cost for its customers, as well as maximize promotion. If such an effect does not occur, then neither does a full range of products indicate dominance.[71]

The Court has also looked at the behavior of an undertaking in the effort to find dominance. This involves a circular reasoning that leaves much to be asked for. That the Court, as it did in *Michelin*, first takes the alleged abuse into consideration when determining dominance, and then, recycle the same facts when finding abuse, is a rather odd approach to legal reasoning. The line of reasoning resulting in, "you abuse therefore you are dominant, you are dominant therefore Article 82 will come into effect", is not really what I would consider a brilliant demonstration of practical jurisprudence. One might choose to disagree in this matter; however, it is clear how the Court might reason given such facts.[72]

[67] C-85/76 *Hoffman La-Roche v Commission.*
[68] C -322/81 *NV Nederlandsche Baden-Industrie Michelin v Commission.*
[69] *Van den Bergh Foods* (98/531) OJ [1998] L246/1.
[70] *Unilever France/Ortiz Miko* (II) (Case IV/M422) OJ [1994] C109.
[71] Faull, Nickpay, p. 134.
[72] Craig, de Búrca, p. 954.

3.3 A Substantial Part of the Common Market

The criterion of dominance in a "substantial part" of the common market must be distinguished from the delimiting of the geographical market, when finding the relevant market. When used for delimiting a market, the geographical factor is one of several in determining dominance on that specific market. It is only after a finding of dominance one needs to see if that dominance affects a substantial part of the common market. In order to be a substantial part one must put the economic importance of the market in relation to the common market as a whole.[73] Thus, Luxembourg, for example, could qualify as "a substantial part of the common market" for banking services, but may not fall into that category when it comes to other products or services. However, note that it may not be politically sound to hold that a Member State forms an insubstantial part of the EC.[74]

What the "substantial part" requirement should entail has been under the interpretation of the Court on numerous occasions, the seminal case being *Suiker Unie.*[75] In this case the Court analyzed both the geographic extent of the market, and the product market within that relevant area. It then continued with an assessment of the economic importance of that market relative to the community market as a whole. Thus, the sugar market in Belgium and Luxembourg was found to constitute a substantial part of the common market - it represented 9% of the production, and 5% of the consumption, of sugar in the Community.

In most cases a Member State will be considered a substantial part of the common market, but even smaller areas may fall under the definition. Especially major transport terminals within the Community have been considered substantial. It is the Commission that has found the ports of Genoa[76], Rodby[77], and Brussels Airport[78], amongst others, to fall within the scope of this definition. It all boils down to the economic assessment of the market in each individual case. Thus, much ambiguity still lurks within the "substantial part" concept.

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[73] Devroe, p. 72.
[74] Whish, p. 301.
[75] Joined Cases C40-48, 50, 54-56, 111, 113, 114/73 *Coöperatieve Vereniging "Suiker Unie" UA and others v Commission*, [1975] ECR 1663.
[76] *Porto di Genova* (97/745) OJ [1997] L301/27.
[77] *Port of Rodby* (94/119) OJ [1994] L55/52.
[78] *Brussels Airport*, Report on Competition Policy 1995 (Vol XXV) at point 120.

4 Barriers to Entry

4.1 Defining the Concept

As we have seen in the previous chapter it is the market power that will be determinative in a test regarding dominance. However, in order for a firm to be able to exercise such market power for any significant period of time, barriers to the entry of new firms on the relevant market must exist. It is primarily by keeping new competitors outside of the relevant market that a dominant undertaking can entrench its position. If entry is easy, an undertaking raising its prices will not retain its share of the market and will inevitably loose output to its rivals.[79] On the other hand, a dominant firm may abuse its position by raising the barriers to entry, thus excluding potential competition by raising their cost of entry. The problem is to distinguish ordinary competitive behavior from undesirable strategic behavior.[80]

There have been several proposals for approaches in the academic literature on how to best define barriers to entry, all of them focusing on slightly different aspects of these barriers. Bain has stressed the ability of the incumbent firm to earn excess profits without inducing potential competition to enter the market. Stigler, on the other hand, has put the emphasis on the cost incurred by an undertaking trying to enter a market that is not born by the incumbent firm. This must be distinguished from cost affecting both incumbent and new entrant alike. Finally, Gilbert defines the presence of barriers to entry as "the additional profit that a firm can earn as a sole consequence of being established in the industry". This last definition, as well as Bain's, looks at the possibility of the incumbent firm to earn excess profit.[81]

The theory of barriers to entry revolves around the central issue of what factors allow an established undertaking to reap profits in excess of normal profit levels, while excluding equally, or more, efficient undertakings.[82] From a competition law point of view, it is the impairment of economic efficiency that is the core issue. It is, after all, the efficiently working competitive market, without artificial restraints or abuse of market power that is the goal of this discipline.[83]

[79] Faull, Nickpay, p. 128.
[80] Turnbull, p. 96-97.
[81] Bishop, Walker, p 301.
[82] Ibid., p. 302.
[83] Harbord, D., T. Hoehn: "Barriers to Enter and Exit in European Competition Policy", (1994) 14 *International Review of Law*, p. 413.

The predatory behavior of an incumbent firm to actively take advantage of the asymmetry existing between the established firm and a potential entrant constitutes a barrier to entry. This behavior may be best demonstrated in the field of strategic entry deterrence. By committing itself to considerable investments in research and development, an incumbent firm may deter entry as it signals its commitment to raise the rivals entrance costs, costs a potential new entrant may not always be sure to retrieve.[84] Excessive investment in publicity or product range may lead to the same result.

Any legal constraint on competition, such as patents or legal monopolies, will act as a strong entry barrier.[85] Within this segment intellectual property rights take a special position. These rights confer upon their holder the power to exclude competition within the spectra covered by the patent, trademark, design or copyright. It is first and foremost patents and copyrights that are most likely to serve as an indicator of dominance, while trademarks rarely will.[86] Other legal barriers to entry, such as, statutory monopolies and domestic legal provisions shielding the home market of a member State, are also relevant. However, some of these legal barriers may best be challenged under other parts of the Rome Treaty i.e. the Articles concerning free movement of goods or Article 86 concerning "state measures".[87]

Entry decisions will be founded on the nature of the post-entry competition that new entrants must face. Another factor highly relevant to entry is the importance of sunk costs of entry, i.e. costs that cannot be recovered by the undertaking when exiting the market. Thus, sunk costs serve to deter undertakings from entering as they increase the financial risk of entrance. They also increase the asymmetry between incumbent and entrant because the established firm already have incurred these costs and need lower returns to stay in the industry than the entrant does. Finally, they might serve to commit a firm to remain on a market, as the loss at exiting would be intolerable. All these factors may play well into the hands of an incumbent firm wishing to daunt potential competitors from entering its market.[88]

The concept of barriers to entry is an economic one. As a matter of fact, the entire process of determining market power within the concept of dominance under article 82 should preferably be based on an economic analysis. Such an analysis may not easily be made considering that the concept of barriers to entry are still controversial even among economists.[89] Is it possible that economic theories will be adhered to in a consistent manner by the Commission and the Court, when the theories themselves are inherently ambiguous? In order to find an answer to this question we will

[84] Turnbull, p. 96.
[85] Gellhorn, Ernest, *Antitrust Law and Economics*, p. 64
[86] Faull, Nickpay, p. 129.
[87] Whish, p. 296.
[88] Harbord, Hoehn, p. 414.
[89] Whish, p. 295.

have to take a look at how the discussion regarding entry barriers is conducted.

4.2 The Debate on the Barriers Importance

4.2.1 The Conceptual Controversy

When determining the scope of the concept of barriers to entry, one must be vigilant. A narrow definition may cause dominant undertakings to escape from the reach of Article 82 and to carry on with their abusive behavior unchecked. On the other hand, a wide definition risks to use factors not related to any artificial constraint on competition for an assessment of dominance, thereby punishing a firm for its efficiency and counteracting the objective of competition law. This dilemma is what lies at the heart of the controversy surrounding entry barriers.

The main critique in this debate has been aimed at the Commission's and the Court's wide definition of barriers to entry.[90] According to the critics, the ECJ and Commission approach has meant relying on indicators of dominance that are irrelevant seen from an economic perspective. To determine what factors should be taken into account a reasonable starting point would be to distinguish between the advantages a firm has gained through superior efficiency, and barriers that artificially allows an undertaking to deliberately foreclose the market irrespective of efficiency.

There are several benefits that will be bestowed upon an efficient firm as a natural result of its superiority that, nevertheless, will make entrance harder for its rivals. An incumbent undertaking may already have plants, skilled staff, advanced equipment, and goodwill as a direct result of competing on a market. All this will make it correspondingly harder for a potential new entrant that must acquire all this in order to compete effectively.[91] But do they constitute an "artificial clog" on competition?

It seems far easier to find a definition of what constitutes illegitimate means of competing, than defining legitimate competition. Therefore it is essential to find out what constitutes an "artificial clog" on competition. According to Bork any artificial barrier is, per definition, an exclusionary practice. It will take the form of either a deliberate efficiency, or an act of deliberate predation, thus it is inherent in its nature that it must be intended.[92] As can be construed from this it will be difficult to lay down a general rule. Each case will be fundamentally different –what will be a deliberate act of predation in one case, may be sound competitive behavior in the other.

[90] Turnbull, p. 97; Craig, de Búrca, p. 953; Whish, p. 299.
[91] Craig, de Búrca, p. 952.
[92] Bork, Robert H., *The Antitrust Paradox: A Policy at War with Itself*, p. 311.

In order to see if the barrier should be part of an assessment of dominance one must look to its very origins. This will increase the complexity of the assessment as far as I can see. Take investment in research and development as an example. If the incumbent undertaking invests heavily in R & D this can, as argued above, deter potential new entrants to the market. The existing firm may by investing strategically raise the cost of entry and in reality foreclose the market. This will create a barrier to entry that will enable the existing undertaking to earn long-run supernormal profits not based on superior efficiency.[93] On the other hand, by calculating R & D investments into an assessment of dominance, the competition authorities may find themselves hampering development and efficiency by hindering an incumbent firm to compete on its merits. Investing in R & D is a way for an undertaking to increase its efficiency and, in many cases, broaden an existing market. A too broad interpretation of entry barriers may thus irreparably harm European industry, and create a competitive disadvantage for that industry on a global market. One must be careful not to disrupt the efficiency enhancing functions of the competitive structure that is the very aim for competition policy to foster.[94]

As this issue seems difficult to resolve, why not go for a broad definition of barriers to entry? After all, it is only used to find dominance, not abuse. This statement is true. However, it fails to take into consideration the cost and time involved for the undertaking being laid open for investigation under Article 82.[95] It also fails to address the fact that a behavior that is abusive for a dominant firm may be totally legitimate competitive behavior for other undertakings not in that position. Thus, a broad view of barriers to entry may lead to wrongful conclusions under Article 82, with severe penalties on the concerned undertaking as a result. Obviously, with such an approach firms may tend to be more careful when acting on the market, and their competitive strength hampered.

4.2.2 The Court's and the Commission's Approach

How the Court approaches barriers to entry can most easily be seen in its case law. It has taken a broad view of barriers to entry, widening the scope of the traditional economic approach. I will, with case law as an outset, attempt to show exactly how wide the Court's and the Commission's view has become. In the case that these findings are controversial, I aim to pinpoint the controversy and give examples of the opposing point of view.

4.2.2.1 Economies of Scale

A factor that has been considered highly relevant for a finding of dominance is *economies of scale*. This concept has its origins in the problem of fixed

[93] Harbord, Hoehn, p. 416.
[94] Ibid., p. 423.
[95] Craig, de Búrca, p. 954.

sunk costs, i.e., a cost that is born by all undertakings on the market, and is independent of the output produced. The larger the output, the lower the cost per unit, as the fixed sunk costs can be spread on more units with a lower average total cost for the production as a result.[96] Costs of this nature are, for example, investments in production plants and equipment, in distribution channels, and in brand name positioning. Efficiency gains may also be achieved by a wide product range or scope. One way of doing that might be to bundle complementary products, i.e. to offer them on stand-alone basis, as well as on a package deal basis on discounted terms in order to increase total sales. The process includes taking account of the effect the price of product A will have on the demand for the complementary product B. This will enable the undertaking to view both products as one at the profit-maximizing level, decreasing profit margin for product A in order to obtain an overall profit increase.[97] In *United Brands*, the Court held that scale was indeed important. As the case dealt with a world-leading producer of bananas the Commission took several aspects of the company structure into account, and the Court upheld the Commissions findings in that respect. The importance of scale was attributed to several factors amongst which were: control over distributors,[98] a diversity of supply sources including ownership of several large banana plantations,[99] and a highly developed transport system.[100] This lead the Court to hold that even if a rival undertaking may use the same method in regard to these factors, this was in reality hardly possible due to the overwhelming practical and financial problems it would have to face.[101]

The Commission specifically addressed economics of scale in its decision in *BPB Industries plc*,[102] dealing with a major supplier of plasterboard in the relevant market of the UK and Ireland. It stressed the substantial economic advantage BPB possessed through its integrated industrial complex, covering most of the production process from raw material to finished product. By concluding that the sole beneficiary of having the production close to the relevant market was BPB, as the firm was the only producer on the relevant market, this constituted a clear-cut case of economies of scale, and was considered relevant when assessing dominance.[103]

The Court's and Commission's findings contrast sharply with the economic approach to the subject. According to the economic line of thought outlined above, economies of scale should hardly be viewed as an artificial constraint on competitive behavior. Actually, when a firm expands due to its efficiency, or superior competitive traits, an attack on it partly supported on

[96] Faull, Nickpay, p. 129.
[97] Lexecon, *Competition Memo* "The Economics of GE/Honeywell" (August 2001).
[98] C-27/76 *United Brands v Commission*, at paras. 51 and 95.
[99] Ibid., at para. 72.
[100] Ibid., at paras. 79-81.
[101] Ibid., at para. 123.
[102] *BPB Industries plc* (89/22) OJ [1989] L10/50.
[103] Ibid., at para. 116.

a finding of dominance based on economies of scale, treads dangerously close to a prohibition of dominance *per se*. It may easily discourage large firms from fully utilizing their assets and competitive strength, with less efficient market participants as a result. As can be understood from this, it is more than likely that economies of scale should be seen as a form of efficiency, and not necessarily as a barrier to entry.[104]

4.2.2.2 Vertical Integration

Vertical integration is another factor that has been attributed great importance as constituting an entry barrier. This term is used to describe the process whereby an undertaking establishes control of different levels of the production process. For example, when a producer of a product integrates the production of raw material, transportation or distribution into its current activities. Once again the seminal Court case is *United Brands* in which UB's remarkable integration from production to distribution of the bananas was deemed relevant.[105] Here the Court looked at the undertaking's possession of plantations over a wide geographic area, which resulted in relative protection against natural disasters,[106] through UB transportation and shipment facilities, to control and distribution. The undertaking was found to be independent of rivals at all different levels, guaranteeing commercial stability and relative security.[107] Another example of the weight attributed to vertical integration by the Court is found in *Hoffman La-Roche*. The Court found that Hoffman La-Roche enjoyed a considerable commercial advantage in its control over a highly developed sales network, which should be considered when making a market power assessment alongside the element of market share.[108]

In several decisions the Commission has approached vertical integration in much the same way as the Court. In the *Hilti* judgement, dealing with an attempt of the undertaking involved, Hilti, to tie customers to its products by attempting to link the purchase of nails to the nail guns sold, vertical integration was deemed important. It was Hilti's well-integrated sales network and distribution system, consisting of both subsidiaries and independent dealers, that was to be a factor to take into account when finding dominance.[109] In *British Sugar*[110] it was the integrated production system that was the focus for the Commission. British Sugar was in a position to make it difficult for new entrants on the market by its advanced control of all stages of the sugar production. This made it especially difficult for new entrants that could only operate on one of the production levels.[111]

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[104] Craig, de Búrca, p. 953.
[105] C-27/76 *United Brands v Commission,* at para. 70.
[106] Ibid., at para. 75.
[107] Ibid., at para. 81.
[108] C-85/76*Hoffman La-Roche,* at paras. 48 and 49.
[109] *Eurofix-Bauco v Hilti,* at para. 69.
[110] *Napier Brown – British Sugar*, (88/518) OJ [1988] L284/41.
[111] Ibid., at para. 56.

Thus, it has been made clear that both the Commission and the Court regard vertical integration as a factor that can contribute to an undertaking being declared dominant. However, according to Stigler's definition of a barrier to entry, as described supra, vertical integration is not a barrier unless the new entrant has to pay a higher cost than the incumbent already has done in order to achieve it.[112] It seems that no cost of any importance was found either in *United Brands* or in *Hoffman La-Roche*, at least it is not expressly stated by the Court. Furthermore, nothing in the cases serves as an indicator of such an economic asymmetry that would act in favor of the incumbent undertaking.

The economic argument for integrating vertically is that it will only be done if the undertaking, by doing this, may increase efficiency and output. An example is the pricing efficiency that occurs when the upstream supplier in an integrated supply chain may take account of the final prize and profit, not merely its own. This will eliminate the risk of double mark-up when independent suppliers all add their profit margin, with the potential result of the final price being too high in relation to the profit-maximizing level set by a vertically integrated supplier.[113] Furthermore, vertical integration will only affect intra brand competition, i.e. the competition on different levels between retailers of the same product. It will not hinder competition from undertakings with similar products of a different brand, nor does it impair a rival's possibility to enter only one of the levels and competing on the merits.[114] One should also note the rather extensive block exemption under Article 81 (3) ECT that by and large excludes vertical agreements on the basis of their being efficiency enhancing by their very nature, provided the undertaking's market power is not too large.[115] In the light of this, it is highly questionable if vertical integration in itself should be considered an indicator of dominance.

4.2.2.3 Legal Provisions

I have previously touched upon the importance of *legal provisions* acting as entry barriers. This type of barrier can take many forms, of which statutory monopoly, restricted access to landing slots at airports, or intellectual property rights only are a few examples. These provisions have in general been created in order to provide a more efficient solution to certain problems than what an unregulated free market could provide. Here the critical point is whether the ownership of intellectual property rights, or other legal privileges, enables the undertaking to impede effective competition on the relevant market. That national statutory provisions can act as barriers to

[112] See Chapter 4.1.
[113] Lexecon, *Competition Memo*.
[114] Craig, de Búrca, p. 922.
[115] Commission Regulation 2790/1999 of 22 December 1999 on the application of Article 81 (3) of the Treaty to categories of vertical agreements and concerted practices OJ [1999] L336/21, at para. 7.

entry is demonstrated by the Court in *Hugin.*[116] The case concerned a refusal by Hugin to supply spare parts to its cash registers to an undertaking that operated on the maintenance side of the market. The Court was influenced in its finding of dominance in the market for spare parts by the fact that rivals would be reluctant to enter the production market, as it might cause them to be in breach of the Design Copyright Act 1968. The competitors were deterred by the threat of a potential lawsuit brought by Hugin under the 1968 Act, and competition was thus hampered.[117] The effect of a national provision conferring the exclusive right to provide mooring services to certain groups through a statutory monopoly was addressed by the Court in *Corsica Ferries*.[118] The ECJ confirmed that it was settled case law that such a statutory monopoly in a substantial part of the common market may indeed create a dominant position within the meaning of article 82, for the undertaking concerned.[119]

The Commission has also dealt with these types of barriers. In *Tetra Pak I (BTG license)* concerning the takeover, by Tetra Pak, of a company possessing a patent and an exclusive know-how license, was regarded as a factor indicating dominance. By the takeover Tetra Pak would be able to exclude potential competitors from using the technology and thus entrench its dominant position on the market with regard to that specific area of technology.[120]

Legal provisions may indeed constitute barriers to entry. However, care must be taken when distinguishing between provisions being barriers and those that are not. Legal provisions are not inevitably barriers, as is often the case with intellectual property, since the patent covering a certain product does not prevent the manufacturing of competing products that can be produced without infringing the specific scope of the patent in question.[121] In addition to this, one should consider that if a legal provision may be used as an entry barrier, it might be proper to modify the provision at issue rather than involve the antitrust machinery of competition law. As a legal provision may constitute a barrier to entry, one must be vigilant. It is essential to look at the very nature of the provision and the context in which it works, a too broad view of legal barriers to entry would lack in clarity and thus hinder a efficient use of competition law.

4.2.2.4 Superior technology and Know-how

One of the more interesting issues is to what extent *superior technology* and *know-how* bars entry to a market. The Court has consistently held these to

[116] C-22/78 *Hugin Kassaregister AB and Hugin Cash Registers Ltd v Commission* [1979] ECR 1869.
[117] Craig, de Búrca, p. 954.
[118] C-226/96 *Corsica Ferries France v Gruppo Antichi Ormeggiatori del porto di Genova a.o.* [1998] ECR I-3949.
[119] Ibid., at para. 39.
[120] *Tetra Pak I (BTG license),* at para. 44.
[121] Whish, p. 296.

elements to constitute barriers to entry. In *United Brands* it was the continual research that UB conducted, resulting in higher productivity and yield of bananas. UB could combat plant disease and soil deficiency, as well as perfect new ripening methods. Such research was relevant when assessing dominance, according to the ECJ, as the rival undertakings were not in a position to develop research at a compatible level and hence, were at a comparative disadvantage.[122] In *Michelin,* on the other hand, the sole reference dealing directly with superior technology was made with regard to Michelin's lead in investment and research, once again construed in relation to its competitors. That technology was considered an advantage that, taken together with other relevant factors, was proof of the existence of dominance.[123] No detailed description of what that research consisted in, or in what it yielded, was given by the Court. A similar approach is to be found in *Hoffman La-Roche* where ECJ made a reference to the technological lead of an undertaking as an important factor when determining dominance.[124] Technological lead was considered a barrier on the sole basis of its constituting a "technological advantage" of the incumbent undertaking in comparison to its potential rivals. Technological barriers have also been addressed by the CFI. With its decision in *Tetra Pak II*[125] the CFI came to the conclusion that Tetra Pak due to its superior technology, amongst other factors, was able to maintain and strengthen its dominant position on the market of aseptic machines and cartons. Although it was technically possible for new entrants to break into the market Tetra Pak had in reality limited the possibility of such an entrance by its policy of tied sales. The CFI found Tetra Pak to be dominant. [126]

The Commission has also addressed the issue of superior technology in several decisions. With its decision in *Hilti*, the Commission focused on the undertaking's extremely strong research and development position. In addition to that position, the fact that Hilti was world leading in adjacent markets of fastening technologies was also taken into account.[127] The reasoning is even more lucid and enlightening in *Tetra Pak I.* The Commission begins by comparing Tetra Pak's technology with its only rival within the EEC. From the comparison it could be construed that Tetra Pak's technology was indeed superior to that of its competitor. It was also declared that a further acquisition by Tetra Pak of additional exclusive licenses risked to severely harm the competitive structure, by locking out potential competitors from the relevant market.[128] The particular technology Tetra Pak aimed at acquiring was also of such a sophisticated nature that combined with its inherent exclusivity it would serve to entrench Tetra

[122] C-27/76 *United Brandes v Commission,* at paras. 82-84.
[123] C-322/81 *Michelin v Commission,* at para. 55.
[124] C-85/76 *Hoffman La-Roche v Commission,* at para. 48.
[125] T-83/91 *Tetra Pak International SA v Commission* [1994] ECR II-0755.
[126] Ibid., at para. 110-111.
[127] *Eurofix-Bauco v Hilti,* at para. 69.
[128] *Tetra Pak I (BTG license),* at para. 44 (1).

Pak's technical position in relation to its potential rivals, and further reduce the possibility of effective competition.[129]

It is beyond doubt that both the Court and the Commission regard superior technology as a barrier to entry. However, this position is questionable when one considers how such superiority has been achieved. First of all, no undertaking can become superior in the fields of know-how and technology without considerable time expenditure and investments in R & D, human resources and equipment. This is a cost all firms have to bear when starting out, and it constitutes a natural part of a competitive market. The cost a new entrant to a market will incur does not need to be greater than the incumbent undertaking's. On the contrary, if the incumbent's patents or know-how are in the public domain any new entrant might find itself in a superior position vis-à-vis the incumbent undertaking. The new entrant may thus be able to use the pioneering undertaking's achievements at little, or no cost spent in own research. One might wonder why a technological lead paid for by investments in research and development should be treated different than an investment in an industrial plant or the like, especially if the technology can be copied at no greater cost by the rivals.[130] Furthermore, intellectual and industrial property rights are meant to act as an incentive for innovative efforts on the behalf of persons and undertakings. By seeing such advantages as indicators of dominance one is likely to hamper future development and punish undertakings for achieving what competition law in essence is meant to encourage. Thus, it is highly questionable to attack established undertakings for possessing greater skills or other sources that gives them an advantageous competitive position that are based upon superior management, expertise, or other efficiency based assets.[131] Despite the consistency of the Court and the Commission in their decisions it remains doubtful whether technological superiority should be regarded as a barrier to entry.[132]

4.2.3 A New Approach

The effect of EC case law is under normal circumstances severe for the undertakings concerned. It would rule out any possibility to deviate from the standards formulated by the Court and the Commission. However, recent case law has opened the possibility for a new evaluation of an undertaking's position. Instead of being strictly bound by old precedents, the Court acknowledge the fact that dominance is to be derived from the competitive situation and not from fixed patterns decided upon under other circumstances. A finding of dominance is regarded as stemming directly from Article 82 ECT, and is thus not dependent on any Commission

[129] Ibid., at para. 44 (4).
[130] Korah, Valentine, "Concept of a dominant position within the meaning of Article 86", *CML Rev* 1980, p. 395-414, at p. 408.
[131] Harbord, Hoehn, p. 423.
[132] Craig, de Búrca, p. 953.

decision as such. Therefore it is the CFI's opinion, as it is expressed in the *Coca Cola* case,[133] that earlier precedents are not enough, neither when defining the relevant market nor in the appraising of dominance within the market severed. The CFI argues that any previous decision are based on the competition and market structure prevailing at the time of that decision, it will thus be likely to influence future policy of the affected undertaking but it does not carry a binding legal effect in respect to the typical situation. The conduct of an undertaking will be shaped by the parameters of the competition on the market at a given time.[134] As with any new decision it is up to the Commission to redefine the relevant market and make a new assessment of the condition of competition relating to the prevailing competitive situation, which must not necessarily be based on the same conditions that was underlying any previous decision.[135]

It is fundamental that a finder of fact must consider whether the defined relevant market has remained the same, and whether the market power within the market defined has altered. This may have the effect of a more flexible approach to dominance, and it decreases the risk that an undertaking with a large market share in relation to its competitors is found dominant if there is a working competitive structure. The old case law under Article 82 dealt in essence with pre-eminence, which put any large company whose share of the market significantly exceeded the competitors shares in risk of being found dominant regardless of its market performance and the competitive degree of the market.[136] By enabling new assessment based on the current competitive situation antitrust law will act more as the efficiency enhancing instrument it was intended to be. It is possible that we by this decision might see a meeting of the minds as regards the different schools of thought on the subject of barriers to entry. However, there is no indication as to the possibility of the Court and the Commission going as far as Bork on this issue, only considering deliberate predation created by private parties as artificial barriers.[137]

4.3 Superior Technology and Know-how

When discussing the role that barriers to entry plays when determining dominance, one should also try to find a method to assess the value of each individual barrier. This may prove easy in certain instances, as may be the case with economies of scale and vertical integration, where it is possible to estimate the advantages gained in hard numbers and amounts saved. However, not all barriers to entry are that easily graspable. That is the case with the barriers of superior technology and know-how, where especially the

[133] Joined cases T-125/97 and T-127/97 *The Coca-Cola Company and Coca-Cola Enterprises Inc. v Commission* [2000] ECR II 1733.
[134] Ibid., at para 81.
[135] Ibid., at para 82.
[136] Van Bael, Ivo, Jean-Francois Bellis, *Competition Law of the EEC*, p. 70.
[137] Bork, p. 329.

value and scope of know-how is both difficult to pinpoint and virtually impossible to assess in most cases.

4.3.1 The General Relevance of the Concepts

The barrier that consists of superior technology and know-how is of uttermost relevance in today's industrial environment. As we are leaving the production based industrial era in favor of an information based industrial environment, we see a corresponding increase in the value of superior know-how to undertakings competing on the market. A competitive battle is not to the same extent as before fought between undertakings with heavy industrial power, using large industrial plants, mechanical innovations and the like as their prime weapons. It is rather the possessor of cutting edge electronic technology, and corresponding research facilities, that in the end, will carry the day. This shift in the structure of society, from one where the pre-eminent commodity is capital and fixed assets, concentrated to a few individuals or in a few projects, to a society where intangible assets like knowledge is the main article of trade, vested in a large group of individual persons, is also paving the way for more flexibility and a higher degree of decentralization of the society as a whole.[138] Heavy investments in rigid industrial complexes, although necessary for mechanical production, may be to an undertaking's disadvantage as technological advances rapidly could makes these structures outdated. An undertaking having invested heavily in one technology may find itself way behind more innovative competitors in a very short period of time. The money poured into a huge mechanical plant will be non-recoverable sunk costs for the undertaking. The question is essentially whether one should leave it up to the market forces themselves to self-regulate, or if competition law still has role to fulfil. However, as the industrial society changes so must the body of law, which aims at ensuring that the market forces do not cause damage.

Why deal with superior technology and know-how under the same heading? That these two elements are basically the same is unquestionable. They give the undertaking that possesses them both a lead in the technological field and a cutting edge competitive advantage and they are both means to achieve and to offer to the market place the best and most efficient product. While superior technology as a concept is fairly straightforward and therefore easier to define properly know-how is much broader with no clear and distinct boarders. It is more of a knowledge-based concept pertaining to everything from client lists to advanced production methods and business secrets in general. It does not necessarily take the form of a tangible asset. It is also know-how that brings forth the largest problems when it comes to determining a specific value.

[138] Fahlbeck, Reinhold: "Ett revolutionerat arbetsliv? Informationssamhället och arbetslivets omvandling", JT 1997-98 p. 1016-1033, p. 1019-1020.

Anti-trust law springs from the time of the emergence of huge industrial conglomerates in the US in the nineteenth century. EC competition law derives its basic thinking from these US antitrust rules found in the Sherman Act (1890), which was an attempt to deal with cartels and other restraints on trade brought forth by cartels and monopoly.[139] Is this legislation, created in a sense to put a check on the abuse of capital, at all capable to restrict and measure the abuse of know-how, a much less tangible asset of an undertaking? If that is not the case, we might find a large section of modern day competition law lacking relevance and potency.

4.3.2 Measuring Know-how

In contrast to most other assets of an undertaking, know-how is quite problematic to calculate a value of. Value may in large be a subjective element; however, it could make sense to relate the criterion of value to the objective life of the know-how in question.[140] Once again this will involve an economic approach. As with the case of superior technology, the ECJ has given no detailed guidance on the evaluation of know-how.[141] However, Article 82 is also relevant in national proceedings due to the supremacy of Community legislation. The Article has direct effect nationally and may thus be used in a national court proceeding.[142] Therefore it may be of interest to determine how national courts have dealt with the establishing of value of know-how in various proceedings in other fields of law.

Attributing a monetary value to know-how is best demonstrated in the field of tort law, when calculating damages. The Swedish Labour Court (AD) dealt with this issue when trying to assess the damages caused to the owner of a company, by its former employees' use of client lists and other corporate secrets.[143] The conflict started when three leading employees left their positions at First Reserve and started a competing undertaking by the name of Vitalitet. By using First Reserve's client register they tried to poach its clients. This register qualified as a corporate secret under Swedish law, and thus AD found First Reserve entitled to damages. As corporate secrets are a part of an undertaking's know-how the value assessment made by AD is of interest to us.

AD started out by fixing the market price of First Reserve before these events. The approximate value of the company was 4,5-5 times the annual profit, amounting to a value of between 8 and 10 million SEK, mainly concentrated to the client pool and the company's staff. When it became common knowledge that Vitalitet was draining First Reserve on both of

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[139] Posner, Richard A., *Economic Analysis of Law*,p. 311.
[140] Venit, James S.: "Boussois/Interpane: the Treatment of Know-How Licenses under EEC Competition Law", [1987] 6 *EIPR*, p. 168.
[141] See section 4.2.2.4 *supra*.
[142] Wetter, Carl, Johan Karlsson, Olle Rislund, Anders Gahnström, *Konkurrenslagen, en handbok*, p. 55.
[143] AD 1998 Nr 80.

these assets, the value of the company dropped to approximately 3 million SEK. AD pointed out that when the actual damages to First Reserve were to be calculated, it would be prudent to discount the decrease in value caused by the legal resignation on the behalf of the three key persons, only the damage caused through illegitimate use of the corporate secrets should be covered. [144] However, if strictly looking at the value decrease in know-how, the decline caused by the resignations should also be taken into account. The final amount of damages due was decided by the Court based on the procedural rule in 35 kap. 5 § rättegångsbalken, which gave the Court the possibility to make an equitable assessment. This statute opens up the possibility for a Court to make such an equitable assessment when proof of damages is difficult or impossible to come by, or otherwise would be too costly to obtain. Based on this Vitalitet was ordered to pay a total amount of 1,5 million SEK in damages.[145]

The Swedish Supreme Court (HD) had to make a damage assessment regarding revealed know-how in the JAHAB case.[146] The controversy had its origin in a dispute between the owner of JAHAB, who claimed that his business idea had been used, and Lärarförbundet, responsible for the claimed abuse. JAHAB had developed a strategy for implementing the use of computers as a tutorial aid in schools. This strategy was divulged to Lärarförbundet at an early stage of the negotiations regarding a possible cooperation, as well as to Apple another partner *in spe* whose main function was to provide the hardware, software, and education needed for the project. Instead of doing the project assisted by JAHAB, a new corporation was created by Lärarförbundet, LIUAB. The business object of LIUAB corresponded unerringly to JAHAB's business strategy and LIUAB closed the deal with Apple. HD had to determine whether the business strategy presented by JAHAB was of such a nature as to constitute a business secret according to Swedish law, in which case Lärarförbundet would be held liable for utilizing the strategy without authorization. In doing that, the Court first determined that the strategy was information pertaining to the business of JAHAB. It went on to state that the undertaking had been keeping it a secret, only revealing it for potential business partners, and finally, that the divulging of it would be harmful to JAHAB's competitive position.[147] Lärarförbundet, creating a new corporation for the purpose of implementing the strategy without the participation of JAHAB, was found liable for the unauthorized use of a corporate secret and therefore liable for the damages inflicted on JAHAB.[148]

When calculating the damages in economic terms, the Court shied away from trying to assess the potential loss in commission and stock value inflicted on JAHAB on account of them being too speculative and uncertain

[144] Ibid., p. 475.
[145] Ibid., p. 476.
[146] NJA 1998 s. 633.
[147] Ibid., p. 650-651.
[148] Ibid., p. 652.

to serve as the basis of a value assessment. Instead it focused its attention on the costs accrued by JAHAB when developing the project the theory being that Lärarförbundet should pay an amount equivalent to what it had gained by using JAHAB's strategy instead of developing its own. In addition the Court recognized that such an amount would not be sufficient to protect an undertaking from unauthorized use of its business secrets. The costs incurred by JAHAB amounted to 1,5 million SEK and the final amount due in damages was fixed by the Court at 2 million SEK. This was deemed to cover all damages inflicted on JAHAB in regard to the issue at hand.[149]

In the cases dealt with above we see that the Courts have made what could almost be described as *ad hoc* value assessments. The difficulty encountered when trying to assess the value of know-how is inherent in the very nature of the concept. As can be construed from the cases dealt with here there seems to be no clear element to base a calculation on. However, if the trend toward increased importance and corresponding economic value of know-how continues, it will be pivotal that some type of common ground is found. After all, we are striving for a homogenous way of applying competition law within the EU. It will be interesting to see whether the ECJ will put forth an effort to remedy this situation, or if it will be left to other actors to make this change, if it can be done at all.

[149] Ibid., p. 653.

5 Conclusion

The purpose of Article 82 was to keep inefficient undertakings from disrupting the competitive structure of the Community due to their sheer size and market power. It was never intended to prohibit dominance as such, but rather to inhibit an undertaking possessing such a position in the market to abuse it, thereby inflicting severe harm to more efficient, but smaller, enterprises. Nor was its scope intended to reach outside the common market, and it is by its very structure not capable of doing that insofar as its scope is limited to the effect on trade between the Member States. Even though the Article is aimed at prohibiting abuse, it is the abuse stemming from dominance that is the core of the Article, and it is dominance that has been the focal point of this work. The general aim of competition law is to promote the efficiency of undertakings active on the market. It must therefore have the effect of preventing undertakings from gaining undue advantages based on the abuse of other factors such as national legislation, anti-competitive agreements and mere size. That is the light in which Article 82 must be read.

The process of assessing dominance must by its nature involve economic thinking alongside a legal approach to the matter. This dualism has proved to be a source of much dispute and controversy between these two disciplines. Dominance as a concept is relative, thus it must be determined in relation to a specific market severed. The market consists of several different aspects or dimensions, the product concerned, the geographical scope and the change brought upon them by the influence of time. Especially the product market has been a hot topic of debate, where the main factor of influence has been the interchangeabilitiy of products. This rather rigid approach has, however, become somewhat more relaxed thanks to the Commission. The new SSNIP test allows for a more flexible assessment of the products that should be viewed as belonging to the same relevant market, especially since it does not –to the same extent– involve detailed, and subjective, scrutiny of the product as such, but rather focuses on the reaction on the market. This new approach will hopefully provide objectively justified results to a greater extent.

It is pivotal that such a delimiting of the market is done with uttermost care, since it will affect the corresponding process of assessing dominance in a fundamental manner. Actions carried out by dominant undertakings that are considered abusive under Article 82 would lead to no reaction had the undertaking possessed the less market power a more generous definition of the market would have resulted in. On the other hand, by an erroneous and limiting market definition, an undertaking without significant market power may find itself under an Article 82 infringement procedure, which may very well prove fatal to its competitive ability.

After the relative market has been finally determined, the time comes to the process of assessing the undertaking's market power on the market severed. This is not as easy a task as first might be thought at a casual examination. The point of departure is best set in the undertaking's share of the market severed. An undertaking's market share must be examined from different perspectives, not strictly limited to the overall share of the market. If the undertaking involved does not possess a share that is significantly larger than those of its rivals, it should not be considered dominant. It may be that the market in question can only support undertakings of a certain size, or that other factors such as efficiency has caused an oligopolistic situation to arise. Thus, large market shares may exist without causing the undertakings in possession of them to be considered dominant within the meaning of Article 82.

If a market share of the undertaking concerned is found to be of a size indicating dominance it must be considered whether this share has been held under a significant period of time, i.e. between three and five years. When the temporal element is not fulfilled, then neither is the undertaking considered dominant. In the case when rivals have the power to enter and expand on the market severed, a dominant position for a short period of time has not been considered harmful to the competitive structure as such. Dominance is after all the power to behave independently from rivals, and that is not possible if an undertaking faces the realistic risk of having new entrants or old rivals undercutting its position.

It is obvious that market power cannot be assessed solely on the basis of market share. This approach fails to take the economic aspect of dominance into consideration. First and foremost it is the lack of any efficiency consideration that is disturbing. As a fundamental aim with anti-trust law is to promote efficiency, one must look at the undertakings on the market and try to determine if they have achieved their market power through relative efficiency or not. It is also important to ponder the effect the specific market structure has had on the partaking undertakings as well as to see whether their market power is sustainable in the future. These factors are not to be found in easily understood and obtainable market share figures, instead the finder of fact must turn to more elusive factors of assessment. This process is more difficult as well as more controversial; however, as accuracy is of great significance, it is necessary to complement the market share with such other factors when determining if there is dominance.

Significant market power becomes dominance first when the undertaking possessing it is able to entrench its position, keeping new entrants away from the market and sustaining its own market share over a longer period of time. There are several ways in which an undertaking can bar its competitors from entering a market. It is crucial to bear in mind that it is only the artificial clogs on competition that is to be considered a barrier to entry in competition law. These will allow the incumbent, independent of efficiency, to be protected from new entrance of rivals. Not included in this concept are

the gains of the incumbent firm brought forth by superior efficiency. It is market power held by illegitimate means that the law is intended to counteract.

When it comes to the importance attributed to entry barriers, two significant obstacles must be faced. Firstly, how broadly should they be defined, and secondly, how should each individual barrier be assessed? The first issue that should be dealt with is how to distinguish ordinary competitive behavior from undesirable strategic behavior. That this has not been properly done so far is the main critique facing the Court and Commission. I have dealt with their approach to several different barriers and one conclusion seems apparent –the Court and Commission have used a very broad scope when it comes to viewing entry barriers. In case after case factors clearly emanating from superior efficiency has been held against the undertakings that, in turn, have been found dominant. This approach might be better understood if the reasoning behind these decisions would have been brought forward which unfortunately has not been the case. It is rather as if the barrier concept has been used as a last resort by the Court, as a justification of its view of the undertakings as being dominant.

Even if barriers to entry are merely secondary to market share when determining dominance, there are no reasons to apply them carelessly. I tend to agree with the critics –not enough effort has been demonstrated when it comes to exempting legitimate advantages from the ones that are not. The most apparent danger of this broad approach is that the Community industry might find its competitive strength weakened in relation to its rivals on the global market. It is crucial that efficiency should not suffer as a result of the EC competition legislation. If that would be the case, the primary object of that very legislation will have been defeated. Another aspect is that by taking a broad view of investments in R & D, as well as superior know-how and technology as constituting barriers to entry, a devastating blow on innovation is made. This might prove even more harmful as it risks choking the incentives for development and innovation, the very basis for much of modern-day know-how oriented industry.

On the other hand, one must not forget the reason for the existence of Article 82. The Court and the Commission has interpreted its function as serving as a protection to small and medium sized business from the predation of larger undertakings. This is why it is important that barriers to entry are taken into account when determining potential dominance. It would be unfortunate if dominant undertakings could get away with abusive behavior solely due to the fact that their market share percentage was below a fixed number. In order for the protection of the Article to be efficient, structural factors and other factors must be taken into account. The problem with using barriers to entry is that there is no single, uncontroversial, definition of what they actually are. So, if a finding of dominance based on market share is imperfect, it is hard to believe that by adding another contentious aspect to the calculation a perfect result will be reached.

As with all things, perfection is hard to achieve in an imperfect world. By taking barriers to entry into account there is good hope that a more just result will be achieved than by merely looking at market share figures. However, this is a coin with two sides. If the barriers are viewed too broadly, as I believe they have been, they will hamper rather than enhance efficiency. If viewed too narrowly, they will allow dominant undertakings to hinder smaller, more efficient undertakings to compete on the merits. The narrow path between these two evils is a difficult path for the Court and the Commission to tread. As the concept of barriers to entry is ambiguous they should perhaps look more to the original intent of competition law, rather than being blinded by the sheer size and amount of resources being available to the undertakings scrutinized. Far from perfect, the concept of barriers to entry has a role to fulfil. Although so far, the wide view of the Court and the Commission has impaired their optimum use. Their approach has led to an expanded and inaccurate use of a concept that should in fact be used in precise and very explicit situation.

That the power to deliberately foreclose a market must be taken into account in an assessment of dominance is a logic conclusion. However, even if a balanced scope of what constitutes barriers to entry is achieved there remains the problem of assessing the barriers individual weight in terms useful for the process of determining dominance. That is particularly the case when it comes to attributing a value to an undertaking's potentially superior know-how. This intangible asset is of uttermost importance and value to modern industrial society and business. With the increased focus on knowledge and competence vested in individuals so is also the competitive advantage increasing by the possession of these people and knowledge related to the business of various undertakings. An undertaking may effectively foreclose a market, at least in the short term, by possessing know-how vastly superior to its rivals. If this superiority is a deliberate predatory act it may be viewed as constituting a barrier to entry. Attributing a value to the know-how is the main problem. As superiority is a relative concept, how does one compare intangible assets? A convenient approach would be to attribute a monetary value to the know-how and, based on that, make a judgement whether superiority is in fact at hand.

As there are no general rules of thumb on how to evaluate know-how in this aspect, I turned to general tort law that has dealt with the issue. Of course this is not directly applicable to any evaluation under Article 82 since it is a Swedish national procedure that is used in a field of law different from that of anti-trust. However, by examining the Swedish national courts decisions light might be shed on the issue at large, and at least a possible way of approaching the problem will be demonstrated. As can be construed from the two cases no conform method was developed. It was rather an attempt by the Courts to estimate the value of the know-how, based either on the shifts in the value of the corporation or, as was the case with the HD judgement, to base the calculation on the cost of development carried by the

undertaking injured. However, neither of these two approaches used are without flaws even if AD:s approach seem significantly better than that of the Swedish Supreme Court.

By attributing the increase, or decrease, within a short period of time of a company's value, the role to decisively foretell the worth of transferred know-how is to simplify the issue somewhat. This approach fails to take into account other factors such as general shifts in market demand and structure pertaining to the relevant undertaking, factors that may significantly influence the value of the company. On the other hand, lacking better and more sophisticated methods, I find this approach rather appealing. It at least attempts to consider the value based on market reactions, thus it seems to provide for a certain amount of flexibility in the assessment. Nevertheless, the potential lack of accurate figures or a consistent method to base the calculation on, as well as the problem with outside influences on the value estimation, are problems that must be thoroughly examined.

An assessment of the value of know-how based on the cost of innovation is even less appealing. The idea that the value of, for example, an invention is to be found in its development cost is rather odd. Ideas are free but not everyone can get them, nor may all of them render anything in monetary terms. However, once got they may prove immensely valuable and this value have naught to do with any costs incurred. The reasoning of the Swedish Supreme Court in this case seems poor as well as strangely outdated, considering the importance of protecting know-how and intangible assets in modern society. Thus, as I fail to see any positive effects with this approach it is but to hope that it will not be used on a European level. As this case dealt with a tort law approach to the issue, one must hope that the same conclusion never would have been reached in a competition case. The approach of the Swedish Supreme Court definitely lacks any trace of efficiency enhancing elements and is thus not suited for problems encountered in competition law.

It is important that the factors representing barriers to entry are included in an assessment of dominance. They increase the depth and accuracy in respect to the final result. Even if market share is the natural point of departure these other factors should be held in high regard as they represent much of the complexity found in modern industry. However, up to this date a too wide scope of what constitutes barriers to entry have been used. This threatens to counteract the original intent to increase and optimize the market and allow more efficient undertakings to grow unhampered in relation to less efficient, but larger, firms. Thus, the concept of barriers to entry has not yet been put to its optimum use. Perhaps it is possible to come up with a method of taking these factors into account without involving such an ambiguous term as entry barrier. This may very well be the case; however, any creditable alternative way of assessing dominance has to my knowledge not been brought forward. If the choice stands between using a flawed, but functioning, instrument of law or succumb to pure ignorance, I

at least would opt for the former. Although not perfect, the concept of barriers to entry is a much needed complement to that of market share and thus serve to fill what otherwise would have been a significant lacuna in the process of assessing dominance.

Yet another obstacle is to be faced in attributing some kind of value to the individual barrier. This is especially the case when the barrier to entry is an intangible one, such as superior know-how. There is no uncontroversial way of giving it a monetary value, instead the finder of facts will have to try and take as many factors as possible into account. Which the best method may be is difficult to say. However, an approach based solely on the development costs of the know-how is too rigid and does definitely not provide for sufficient analysis of all factors relevant to such an important assessment. A better way of would be to, as AD did, focus on the market's reactions and estimation of the know-how concerned. Nevertheless, neither solution is perfect.

The current process of determining dominance and market power leaves much to be asked for. However, this is nothing that the Court and Commission lack the power to remedy. By paying a bit more attention to efficiency arguments and the economic aspects of the issue, a better and more flexible use to Article 82 could be achieved. The law of competition is merely proving the means to achieve an end –increased opportunity for efficient undertakings to flourish and grow by competing on the merits– it is by no means to be taken as constituting an end in its own right. It is up to the Court and the Commission to make sure that the legislation keeps its vitality as the industrial society changes. The law must adapt to the needs of today or loose its significance. It is my firm belief that the concept of dominance in Article 82 has a clear potential to do this, surviving the transition from the mechanical industrial era into an era in which knowledge rather than tangible assets are the main driving factor.

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