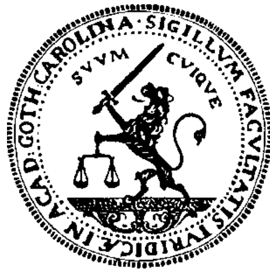

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Interpreting Dominance

A Teleological Analysis of a Dominant Position in Article 102 TFEU and the Interplay with Economic Theory

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Summary

EU competition law, and Article 102 TFEU, strives to prevent the distortion of competition. According to economic theory, a free market economy where resources are allocated through competition can generally be expected to increase the total utility of society. The theoretical models of perfect competition and its opposite monopoly, a total lack of competition, motivates this conclusion. An important caveat is that at times monopolies are more efficient ways of organizing the market, and in such cases potential competition may constrain the monopoly from harming utility. Measuring the market power of individual undertakings enables the determination of whether competition law should intervene. Such intervention is considered motivated when individual undertakings have substantial market power.

The CJEU has long held that for an undertaking to be considered in a dominant position in EU law, it must be able to prevent effective competition from being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers. While this in principle equals substantial market power, two divergent approaches have arisen: (i) the CJEU's which at times appears more expansive than the concept of substantial market power and (ii) the Commission's, which was developed after a review of the Commission's policy in the 2000s and more accurately reflects contemporary economic theory.

The differences between the institutions further differ when it comes to the goals of competition law and Article 102 TFEU itself. While the Commission has espoused *consumer welfare* as the end goal of Article 102 TFEU, the Court has rejected this and withheld a broader normative horizon for competition law and a special focus on preserving *competition as such*.

An error cost analysis, where the accuracy and functionality of the two approaches are measured in terms of whether they serve to protect consumer welfare, shows that if such a goal is embraced, the Commission's approach is more appropriate. However, a broader, normative evaluation of the approaches against the CJEU's preferred goal of protecting competition as such, shows that the CJEU's approach may be more advantageous. Thus, the institutions' embrace of different views is both understandable and internally coherent. As the CJEU is the final arbiter of the law, legal certainty should not be in doubt as the case law is superior in the EU hierarchy of norms. However, undertakings may be motivated to believe that the Commission will adhere to its approach. As the CJEU cannot be expected to enforce this adherence, the dissonance between the institutions generates a lack of foreseeability and, ultimately, a lack of legal certainty.

Sammanfattning

EU:s konkurrensrätt och Artikel 102 FEUF syftar till att förhindra snedvridningar av konkurrensen. Enligt ekonomisk teori så ökar en frimarknadsekonomi samhällsnyttan genom konkurrens. Denna slutsats kan motiveras av de två teoretiska modellerna perfekt konkurrens och dess motsats monopol, en total avsaknad av konkurrens. Ett viktigt undantag till detta antagande existerar i de fall där monopol är mer effektiva som organisationsform för marknaden *och* potentiell konkurrens hindrar monopolet från att inverka negativt på samhällsnyttan. Från den här diskursen stammar konceptet marknadsinflytande. Genom att mäta individuella företags marknadsinflytande kan lämpligheten i ett eventuellt konkurrensrättsligt ingripande avgöras. Ett sådant ingripande är motiverat när individuella företag har substantiellt marknadsinflytande.

EU-domstolen har fastslagit att för att ett företag ska vara i dominant ställning enligt EU-rätten måste det vara kapabelt att hindra upprätthållandet av en effektiv konkurrens på den relevanta marknaden genom att företagets ställning tillåter det att i betydande omfattning agera oberoende i förhållande till konkurrenter, kunder och i sista hand konsumenter. Även om en dominant ställning till stor del är att jämställa med substantiellt marknadsinflytande har två olika tillvägagångsätt att finna en dominant ställning växt fram i EU-rätten: (i) EU-domstolens metod som tidvis framstår som mer expansiv än konceptet substantiellt marknadsinflytande och (ii) Kommissionens metod som utvecklades efter en granskning av Kommissionens policy under 2000-talet och som till en större grad reflekterar nutida ekonomisk teori.

Institutionernas syn skiljer sig även vad gäller de mål konkurrensrätten och Artikel 102 FEUF eftersträvar. Kommissionen har antagit *konsumentvälfärd* som det slutliga målet för Artikel 102 FEUF. Detta har dock avfärdats av EU-domstolen som har fasthållit en större mängd mål för konkurrensrätten och framförallt fokuserat på att det finns ett värde i att skydda *konkurrensen i sig*.

En felkostnadsanalyis, där träffsäkerheten och funktionaliteten av de två tillvägagångsätten mäts i förhållande till hur de uppnår konsumentvälfärd, visar att Kommissionens tillvägagångsätt är mer lämpligt för att uppnå det målet. En bredare analys av tillvägagångsätten för att uppnå de rättsliga mål som EU-domstolen har satt upp i form av att skydda konkurrensen i sig visar dock att domstolens metod kan vara mer framgångsrik i detta avseende. Institutionernas antagande av olika tillvägagångsätt är därför förståeliga på så sätt att de tjänar deras respektive olika antagna syften för konkurrensrätten. Eftersom EU-domstolens praxis har en högre rang i normhierarkin än Kommissionens beslut och riktlinjer är svaret på vad som är gällande rätt relativt enkelt att avgöra. Däremot, kan det antas att företag i vissa fall förväntar sig att Kommissionen kommer att efterfölja sitt eget tillvägagångssätt. Då EU-domstolen inte kan förväntas säkerställa denna efterlevnad, ger skillnaden mellan institutionerna upphov till en brist på förutsägbarhet och, i längden, även rättssäkerhet som sådan.

Abbreviations

CJEU	Court of Justice of the European Union
CUP	Cambridge University Press
EU	European Union
GC	General Court
OECD	Organisation for Economic Co-operation and Development
OUP	Oxford University Press
R&D	Research and development
SSNIP	Small but significant and non-transitory increase in price
TEU	Treaty of the European Union
TFEU	Treaty of the Functioning of the European Union

1 Introduction

1.1 Background

When approaching competition law for the first time, one is struck by its peculiar mix of economics and law. The influence of economic thought on this realm of law cannot be overstated. Economic theory is the basis for how the law regulates economic conduct in order to generate utility for society. However, further study also reveals that the dialogue between the economic field, which relies on models, and the legal field, which has a need for administrable and workable concepts, at times result in stark dissonances. In EU law, these characteristics are particularly prevalent in the regulation of undertakings unilateral actions through Article 102 of the Treaty of the Functioning of the European Union[1] (TFEU). The Article's application and goals are contested in academia and practice between those favouring a more 'economic' approach, which favours effect based analysis using economic theory to maximise consumer welfare, and and those which favour a more formalistic approach, which focuses on finding legally applicable rules and a broader normative horizon of goals.[2] This thesis aims to study this conflict in the light of a specific element in the article, namely that of a dominant position in the internal market, which an undertaking must hold for the Article to apply.

1.2 Purpose and Problem

In investigating the concept of dominance, this thesis seeks to answer the following research questions.
Firstly, the economic theory underlying the regulation is considered:

- What is the basis in economic theory for justifying the regulation of individual undertakings' unilateral conduct?
- How is the concept of market power used to measure the need for such intervention?

Secondly, the EU law in this field is investigated:

- How is dominance defined and determined in Article 102 TFEU?
- What are the different goals which Article 102 pursues, and whether different EU institutions have embraced different goals?

Through these questions, two approaches to determining dominance, that of the Court and the Commission, may be found. The thesis then asks:

- If economic analysis is applied to these approaches to determine error costs against the benchmark of consumer welfare, which approach is optimal?

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[1] OJ C 326/47.
[2] See Alison Jones and Brenda Sufrin, *EU Competition Law: Text, Cases and materials (*6th edn, OUP 2016) pp. 31-42 for an introduction.

- If instead a normative analysis is applied, how does these approaches attain the telos of Article 102 TFEU as it is determined by the Court?
- Finally, what may the difference in these approaches imply for the application of EU law?

1.3 Method

In order to answer these questions, EU legal method is employed to determine EU law through an investigation of the sources of EU law. The sources consulted are binding primary law, i.e. the treaties and the Charter, binding secondary law in the form of legislative and regulatory acts[3], decisions, international treaties and agreements which the Union has entered into, and general principles of EU law. Finally, EU law has to a large extent developed through the case law of the Court of Justice of the European Union (CJEU), which is tasked in Article 19.1 of the Treaty of the European Union[4] (TEU) to ensure that "in the interpretation and application of the Treaties the law is observed."[5] This fact is exemplified through the CJEU's expounding of the concept of dominance in Article 102 TFEU in its case law.

Moreover, there is also an extensive case law from the General Court (GC). However, the GC is a first instance court and its case law is less authoritative than the CJEU's case law. Thus, the statements of the GC can be used to interpret EU law when the CJEU has not set the law in a given situation or the CJEU has affirmed the reasoning of the general court.[6] Non-binding sources of law, such as opinions of the Advocate-Generals, as well as non-binding legislation and guidelines issued by the Commission can be used either to evaluate or explain the decisions reached by the courts or to seek answers to questions left unanswered by the courts.[7] In addition, the following two points concerning the peculiarities of EU law are of specific importance to this work.

Firstly, EU law is characterised by the EU Courts' use of a teleological method of interpretation. EU law is interpreted in light of its *telos* (objective). In addition, as argued by the former Advocate-General *Maduro*, the teleological method does not only take into account the individual regulation's purpose but also the broader context and purpose of Union law, i.e. its systemic context. Specifically, this means that the Court when interpreting concepts such as dominance takes account of both the purpose of the concept in itself and the broader aims of Union and Competition law in general.[8]

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[3] See C-583/11 P *Inuit Tapiriit Kanatami and Others v Parliament and Council* EU:C:2013:625 § 61 for a definition.

[4] OJ C115/13 .

[5] TFEU 19.1. See also Jörgen Hettne, 'EUs Rättskällor' in Jörgen Hettne and Ida Otken Eriksson (eds), EU-rättslig metod: Teori och genomslag i svensk rättstillämpning (2nd edn, Norstedts Juridik 2011) p. 49.

[6] Hettne (n 5) p. 56.

[7] Hettne (n 5) pp. 46-47, 126f.

[8] Luis Miguel Poiares Pessoa Maduro 'Interpreting EU Law: Judicial Adjudication in a Context of Constitutional Pluralism' (2007) 1 European Journal of Legal Studies 2 (4-6).

Second, the Commission plays a leading role as the main enforcer at the Union level in the field of EU competition law. The Commission is tasked with ensuring the application of the principles of EU competition law, investigating suspected infringements, and to decide eventual remedies and fines.[9] Thus its guidelines and decisional practice must also be taken into account when determining the law and the obligations it imposes on individual undertakings. While the Commission's guidelines and decisional practice do not determine what the law is, they may bind the Commission and thus influence the application of competition law under certain circumstances. According to the Court's case law flowing from *Louwage*[10]*,* the Commission must, when dealing with matters falling within its discretion, follow its own code of conduct and only depart from it if such a departure can be motivated by objective reasons. If the Commission does not abide this rule, it violates the principle of equal treatment. This has crystallised into the principle of legitimate expectations and the conditions for it to apply are: (i) the Commission is granted a discretion in how it chooses to enforce law, (ii) it has laid down non-binding guidelines or established a decisional practice which establishes rules for how this discretion is exercised and (iii) these rules are public, and thus creates legitimate expectations among individuals that the Commission will respect the principle of equal treatment by following its own guidelines.[11]

It is important to distinguish how the Commission is allowed to decide on its exercise of its discretion, including any obligation this may create through the principle of legitimate expectations, from its lack of authority to interpret EU law in a binding manner. It cannot be bound by its own interpretations of EU law, as interpreting EU law falls within the ambit of the CJEU's authority.[12] The complexity involved in determining whether the Commission has done the former or the latter can create a lack of legal certainty for individual subjects. When the Court case law is ambivalent or incomplete, it is not certain whether the Commission is using its discretion, which would bind it, or interpreting EU law, which would not bind it.

A particular issue relating to this is the role of the Commission's Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings'[13] (the Guidance Paper) which is the result of the Commission's review of its policy regarding the application of Article 102 TFEU.[14] The Guidance Paper represents an attempt to induce more economic thinking into the application of Article 102 TFEU. While the document itself clarifies that it is "without prejudice to the interpretation of Article [102 TFEU]"[15] of the EU Courts it also aims to clarify and increase the 'predictability' of the Commission approach to the same article.[16] In a

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[9] Article 105 TFEU.
[10] C-148/73 *Louwage v Commission* EU:C:1974:7.
[11] Hettne (n 5) p. 47.
[12] Hettne (n 5) pp. 47-48.
[13] Communication from the Commission [2009] OJ C45/2.
[14] Jones and Sufrin (n 2) pp. 275-280.
[15] Guidance Paper § 3.
[16] Guidance Paper § 2.

preliminary reference, the second *Post Danmark*[17] case, the CJEU held that the Guidance Paper "merely sets out the Commission's approach as to the choice of cases that it intends to pursue as a matter of priority; accordingly, the administrative practice followed by the Commission is not binding on national competition authorities and courts."[18] Moreover, in *Treuhand*[19] the GC clarified that the Commission's duty to enforce competition rules cannot be limited by the principle of legitimate expectations.[20] Thus, the case law status as a legal source always trumps the Guidance Paper, and the principle of legitimate expectations does not necessarily hold the Commission to its approach there-in. However, it varies whether the Commission adheres to the method in the Guidance Paper in addition to the case law, or only the latter. This can only be found through a study of its decisional practice.

Through chapter 2 and 3 the economic theory and methods which underpin competition law are described. In these chapters, an interdisciplinary method is used. Such a method depends on using different fields of science to study problems from different perspectives.[21] The field of economics, which is used to complement the legal analysis, is a social science that seeks to analyse and describe the production, distribution and consumption of wealth in society. It studies how human behaviour develops in a context of the relationship between scarce means which have alternative uses and given goals. Of particular importance to the study and application of competition law is microeconomics which deals with the behaviour of entities such as consumers, firms and other economic actors.[22] In the final chapter, the legal and economic methods are combined through the use of error cost analysis, a method from law and economics. Law and economics aim to analyse the consequences of the law from an economic perspective,[23] and error cost analysis does so through the quantification of the cost of legal mistakes and the enforcement system. Error cost analysis is further described in section 5.3.

1.4 Material

As regards the use of material I aim to rely on primary sources in the form of the treaties, secondary law, case law and soft law. As regards secondary material, articles and doctrine will be relied upon. Especially, the works of prominent scholars in the field will be critical in describing cases and the different ways the primary sources can be interpreted and analysed. In the economics-related chapter, economics textbooks and *Encyclopædia*

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[17] C-23/14 *Post Danmark II* EU:C:2015:651.
[18] Ibid. § 52.
[19] T-99/04 *AC-Treuhand v Commission* EU:T:2008:256 § 163.
[20] Jones and Sufrin (n 2) pp. 275-280.
[21] Minna Gräns, 'Användningen av andra vetenskaper' in Fredric Korling and Mauro Zamboni (eds), *Juridisk Metodlära* (edn. 1:2 Studentlitteratur 2013) p. 428.
[22] Mark Blaug, 'Economics' Britannica Academic, Encyclopædia Britannica (19 April 2018) <academic-eb-com.ludwig.lub.lu.se/levels/collegiate/article/economics/109547> accessed 29 June 2018.
[23] Vladimir Bastidas Venegas, 'Rättsekonomi' in Fredric Korling and Mauro Zamboni (eds), *Juridisk Metodlära* (edn. 1:2 Studentlitteratur 2013) p. 175ff.

Britannica[24] is used to introduce various concepts. Furthermore, there are cross-disciplinary competition law works which combine law and economics, and these are also used.

1.5 Limitation of Scope

This thesis is limited in scope to analysing and evaluating the concept of single firm dominance from a legal and economic perspective. Thus, the thesis does not concern other parts of Article 102 TFEU, such as 'collective dominance', 'a substantial part of the internal market' and 'effects on trade'.[25] An exception is abuse, which is briefly described in order to put the error cost analysis of dominance into its proper context. Finally, the evaluation of different approaches in chapter 6 is made at the level of the rules themselves, and not how and when they are actually enforced. Such an analysis is not possible given the constraints on time and space in this project.

1.6 Current Research

The existing legal research on Article 102 is extensive in scope and many examples are cited in this work. There are several examples of goal-based analysis of Article 102 TFEU in the context of abuse.[26] However, I have not been able find examples of where the economic and legal analysis of dominance are conducted and the results compared, which is one of the aims of this thesis.

1.7 Terminology

This thesis includes a substantial amount of economic terms as well as concepts unique to the field of competition law. I have chosen to address and explain these terms in the thesis instead of here for reasons of pedagogy and clarity. As regards the plurality of economics terms in chapter 2 and 3, I have sought to explain these either in the text, when they are central to the point of the chapter, or in the footnotes, when they are central to the understanding of the chapter for a person who is unfamiliar with economic theory. As a starting point for defining these terms I have used an economics textbook[27] and the *Encyclopædia Britannica.*[28] As regards to

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[24] Encyclopædia Britannica. <www.britannica.com> accessed 1 August.
[25] For a general introduction to Article 102 TFEU see Jones and Sufrin (n 2) p. 257ff.
[26] See *inter alia* Peter Behrens, "The Ordoliberal Concept of 'Abuse' of a Dominant Position and its Impact on Article 102 TFEU" (2015). Nihoul/Takahashi, Abuse Regulation in Competition Law, Proceedings of the 10th ASCOLA Conference Tokyo 2015, Forthcoming. <https://ssrn.com/abstract=2658045> accessed 28 July.
[27] Richard G. Lipsey, Peter O. Steiner and Douglas D. Purvis, *Economics (*Harper & Row, 1987).
[28] Encyclopædia Britannica. <www.britannica.com> accessed 1 August.

concepts in EU competition law discussed in the thesis such as 'dominance' and 'competition' the meaning of these are seldom fully established or unambiguous and determining this is a major point of the legal analysis. Finally, since Article 102 TFEU has had the same wording since the European Coal and Steel Community, with changes only to its denotation, older versions of the same article are denoted as Article 102 TFEU throughout the essay to provide clarity to the reader.

1.8 Disposition

This thesis is structured according to the order of its research questions. Thus chapter 2 and 3 concerns the economic aspects of dominance, chapter 4 analyses how it is defined and determined in EU law while chapter 5 investigates the potential goals of EU competition law and its institutions. chapter 6 conducts error cost and legal analysis of the different approaches found in EU law. In this, the different goals are used as benchmarks to determine the suitability of the approaches.

2 How Economic Theory Justifies the Application of Competition Law

2.1 Introduction

In order to understand competition law and the concept of dominance in Article 102 TFEU, it is necessary to understand that its application is justified by economic theory. This chapter aims to explain the basics of this economic theory. In addition, through a presentation of two extreme forms of market structure, perfect competition and monopoly as well as their effects, it is shown why the application of competition law is sometimes necessary to maximise society's benefit.

2.2 Introducing the Economic Concept of Competition

According to economic theory, competition helps society to achieve certain goals, and the basic premise of competition law is that it "exists to protect competition in a free market economy."[29] This represents a belief, stemming from liberal thought and welfare economics[30], in a free market economy as the most efficient way of allocating resources in society to maximise utility. Such a society allows the aggregate self-interest of all economic actors, i.e. the "invisible hand" of *Adam Smith,*[31] to allocate resources through the process of competition between firms for the business of buyers. This competition takes place in a marketplace where suppliers and consumers can meet and voluntary exchange goods and services. The voluntary nature of the exchange means that consumers only buy things that they value higher or equal to the payment and that suppliers sell goods and services for payments that they value higher or equal to the sold good or services. Through these trades, society becomes better off since both seller and buyer gain goods or services which they value more than their payment. This allows all trades which are *Pareto optimal,* i.e. where any one economic actor can become better off without no one becoming worse off.[32] Importantly, it is the individual actors who determines what is of maximum value to them. Thus, the problem of measuring, or determining, what

[29] Jones and Sufrin (n 2) p. 2.

[30] A normative field of economics which seeks to determine the allocation of wealth that will maximise human welfare or utility. See Jones and Sufrin (n 2) p. 3.

[31] Adam Smith *An Inquiry into the Nature and Causes of the Wealth of Nations (*first published 1776, Project Gutenberg 2009) Book IV Chapter 2.

[32] Trades where an actor is made better off at the expense of another would not occur, given that both have full information and are motivated purely by self-interest.

allocation of resources will yield the most utility is solved by allowing this determination to be outsourced to individuals.[33]

This allocation of resources is represented by the laws of supply and demand, i.e. the aggregate economic behaviour of all buyers and sellers in the market.[34] The model is illustrated by this diagram:

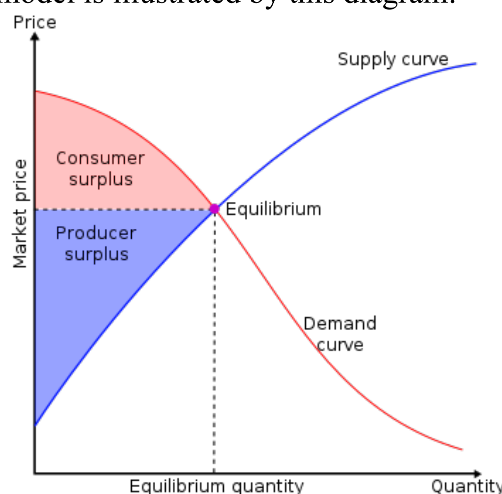

Figure 1.1: Supply and Demand-Diagram.[35]

To understand this model, it is useful to know how economics categorise short-run costs. *Lipsey et al*[36] explains:

> Total cost (TC) is the total cost of producing any level of output. Total cost is divided into two parts, total fixed costs (TFC) and total variable costs (TVC). A fixed cost is one that does not vary with output; it will be the same if output is 1 unit or 1 million units. […] A cost that varies directly with output, rising as more is produced and falling as less is produced, is called a variable cost […]. Average total cost (ATC) […] is the total cost of producing any given output divided by that output. Average total cost may be divided into average fixed costs (AFC) and average variable costs (AVC) in the same way that total costs […]
> Marginal cost (*MC*) is the increase in total cost resulting from raising the rate of production by one unit. Because fixed costs do not vary with output, marginal fixed

[33] Jones and Sufrin (n 2) p. 2. This can of course be problematic when individuals make choices which might be detrimental to themselves or others. Modern economics denotes such problems as market failures. They can consist of information asymmetry when one party is not aware or able to take account of the full implications of the behaviour and negative externalities when the cost is not carried by the consumer. However, competition law is concerned with another type of market failure, that of the abuse of market power, which is discussed in this paper. See "Market failure" *Encyclopædia Britannica* 1 August 2013 <academic-eb-com.ludwig.lub.lu.se/levels/collegiate/article/market-failure/600966> Accessed 10 July 2018.

[34] Damien Geradin, Anne Layne-Farrar and Nicolas Petit *EU competition law and economics* OUP 2012 2.12-14.

[35] By User: SilverStar and distributed under GFDL (http://www.gnu.org/copyleft/fdl.html), CC-BY-SA-3.0 (http://creativecommons.org/licenses/by-sa/3.0/) or CC BY 2.5 (https://creativecommons.org/licenses/by/2.5)] <https://commons.wikimedia.org/wiki/File:Economic-surpluses.svg> accessed 10 July 2018.

[36] Lipsey et al. (n 27).

costs are always zero. Therefore, marginal costs are necessarily marginal variable costs, and a change in fixed costs will leave marginal costs unaffected.[37]

Note that in the long-term, fixed costs and variable costs both become variable costs, as fixed costs also varies with the level of output. For example, factories need to be replaced after a certain amount of years etc.[38]

Returning to the model, the supply curve shows the relationship between the market price of the good and the quantity supplied. The curve is positive because of suppliers' marginal cost. Marginal cost will increase when a greater quantity is supplied as the scarcity of inputs, and thus their price, will increase. As a result, suppliers will ask a higher price for each individual good, in order for marginal revenue[39] to at least equal marginal cost.[40]

The demand curve's downward slope represents consumers' willingness to consume by showing how the volume of consumption increases at lower price levels and vice-versa. As consumers value goods differently, some consumers would still want, or need, to buy goods at even the highest price levels, while others would instead use their funds to buy other goods because the perceived value of the first good does not match the cost. The maximum amount which the consumer is willing to pay for a good is called a 'reservation price.'[41]

While it would be in the interest of a supplier to charge every consumer their reservation price to maximise its profit, this is unlikely to be feasible in a transparent marketplace, due to the prohibitive high cost associated with determining each customer's individual reservation price.[42] An illustrative comparison is for example a tourist market for sporting goods versus a sport store. While sellers in the tourist market are able to charge prices closer to the reservation prices of customers through the haggling made possible by the lack of transparency (no price plates in comparison to the sport store) the sport store will instead price their goods generally for all customers. This is still profitable for the sport store as what loses in lower prices, it regains by the cost reduction achieved through the absence of haggling.

At price levels which exceed marginal cost, suppliers would be willing to supply a much greater quantity than consumers are willing to buy, leading to excess supply, while at low price levels suppliers would produce less than consumers demand, leading to insufficient supply. Neither of these positions are profit-maximising for suppliers, as they either produce products which are not sold or they produce less products than they can

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[37] Ibid p. 185f.

[38] Robert Dorfman, 'Theory of production' *Britannica Academic*, Encyclopædia Britannica (9 April 2018) <academic-eb-com.ludwig.lub.lu.se/levels/collegiate/article/theory-of-production/106207#34169.toc> accessed 2 July 2018.

[39] **Marginal Revenue:** the increase in total revenue that occurs for every increased unit of output. Dorfman (n 38).

[40]Ibid. See also See Jones and Sufrin (n 2) p. 3- 4; Jonathan Faull and Ali Nikpay (eds.), *The EU Law of Competition (*3rd edn OUP 2014) 1.C and Geradin et al. (n 34) 2.10-15.

[41] See Jones and Sufrin (n 2) p. 3- 4; Faull and Nikpay (n 40) 1.C and Geradin et al. (n 34) 2.10-15.

[42] Ibid.

profitably sell. Profit-maximising suppliers would price their goods where the quantity they supply matches the quantity that consumers are willing to buy at that price. This market equilibrium is the point where the curves meet and will generate the optimal aggregate surplus for society. This consists of the producer surplus created by all the individual goods that suppliers are able to supply at a lower cost than the market price and the consumer surplus generated by all the savings that consumers with higher reservation prices make by only having to pay the market price.[43]

The responsiveness of the quantity demanded or supplied to changes in price is denoted as elasticity of demand or supply respectively. For example, when an increase in price will have little effect on the quantity of goods demanded, demand is inelastic. If the increase in price is instead responded to with a significant lessening of the quantity demanded, demand is elastic. In defining markets, cross-elasticity of demand is of particular importance. This is a measure of the effect that a price increase of one good will have on the quantity demanded of another. Significant cross-elasticity indicates that consumers view the two products as substitutes or interchangeable, as they turn to the other good in response to price raises. Conversely, a lack of cross-elasticity would indicate the opposite, that the goods are not interchangeable in the eyes of consumers.[44]

The simple slope of the aforementioned supply curve is, however, complicated by economies of scale. This concept has critical implications for the determination of marginal cost as well as for competition law in general. Economies of scale[45] exist when the production of more goods decreases average total costs. This occurs when there are fixed costs which do not increase by increased production. Thus, increased production will actually lower average total cost, as the average fixed cost is decreased. Eventually, there comes a point where increased production no longer results in lowered average cost (e.g. the factory is producing at maximum output). This is called a minimum efficient scale and is critical in determining market structure. In some markets a minimum efficient scale can only be attained if a major part of the market is supplied by one firm. In such a situation a natural monopoly occurs as it is cheaper for only one firm to supply the whole market because only one firm at a time can attain the lowest average cost resulting from economies of scale.[46]

A free market with competition can thus be assumed to generate an efficient allocation of resources in society as well as lead to surplus to both consumers and producers under certain conditions. These conditions theoretically exist under a state of perfect competition where there in principle is no need to apply competition law. However, when there is no competition and the market is dominated by a single firm, a monopoly, the free market does not render optimal results and the intervention of competition law is often, but not always, deemed as required. In the next sections these extreme states and their consequences are presented. Idealised

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[43] Ibid.
[44] Jones and Sufrin (n 2) p. 4-5
[45] See also economies of scope, which is a similar concept except for that lower variable costs are instead achieved by producing several complementary products. Ibid.
[46] Jones and Sufrin (n 2) p. 6 and Faull and Nikpay (n 40) 1.C.2.f

as such states of competition may be, they serve two important purposes in competition law analysis: They provide an indication for the effects of a competitive state, and they provide a scale from zero to maximum competition for evaluation of a given market situation.[47]

2.3 Perfect Competition and its Consequences

Perfect competition is an idealised market state where there is no need for the application of competition rules as there is no anticompetitive behaviour to address. The conditions necessary for this are: (i) The market consists of many small firms as a result of a small minimum efficient scale in relation to the market's total size; (ii) the product is homogenous or identical and thus perfectly interchangeable; (iii) there is complete and free information so that all can make optimal transactions and technological advances are shared immediately; (iii) there are no barriers to entry or exit[48] and thus sellers and buyers can enter and leave the market freely; (iv) there are no transaction costs; and (v) there are no externalities (costs or benefits are not imposed upon third-parties). In such a market, sellers have no power over prices, and thus become "price-takers, not price-makers."[49]

In a perfectly competitive market, marginal revenue will equal marginal cost. If the firm tries to raise its prices over the cost of production, its consumers will exchange its products for those of its competitors and if the firm cost of production exceeds the market price it must leave the market or eventually go bankrupt. Thus, the firms are price-takers and not price-makers on a perfectly competitive market.[50]

2.3.1 Efficiences

Perfect competition is theorised to generate great benefits in the form of allocative, productive and, perhaps, dynamic efficiency. Importantly, the first two categories are static, i.e. given at a certain point in time, while the third is dynamic, i.e. it occurs over a longer period of time.

Allocative efficiency results from the fact that market price on a perfectly competitive market will equal the cost of production. Thus, every buyer who desires to buy the goods or services at the cost of production is able to do so. This allows all Pareto optimal trades, increasing the total utility gained by society through the creation of consumer and supplier surpluses.[51]

Productive efficiency results from the fact that firms are required to produce at the lowest possible cost, or else risk losing their business to competitors that do so. Moreover, perfect information means that any cost-

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[47] Geradin et al. (n 34) 2.34 and Jones and Sufrin (n 2) pp. 10-11.
[48] See section 3.6 for a further discussion.
[49] Geradin et al. (n 34) 2.15-19 and Jones and Sufrin (n 2) p. 10.
[50] Geradin et al. (n 34) 2.15-19 and Jones and Sufrin (n 2) p. 7.
[51] Jones and Sufrin (n 2) p. 7 and Faull and Nikpay (n 40) 1.64.

saving techniques will be transferred among firms.[52] Thus, the self-interest of the firms encourage them to seek costs-savings to lower their costs, while competitive pressure will keep prices down.[53]

Dynamic efficiency deals with the increase in output (in terms of quality, selection etc.) and reduction of cost of the products in the market over time as a result of innovation. Contrary to the other two kinds of efficiency, dynamic efficiency may be lacking in a perfectly competitive market since the pressure on firms to cut costs may not make capital available for extensive research and development(R&D).[54] Moreover, if perfect information sharing exists, there is less incentives for firms to invest in R&D as other firms can simply copy the benefits generated by the research without paying for the cost. In the real-world, this problem is solved by introducing intellectual property rights, i.e. exclusive use rights to the creator. The trade-off implicated in this system is that it may be beneficial to limit competition to a certain extent since it brings dynamic efficiencies through incentivising more investment in R&D.[55] Note that this reveals the 'idealistic' nature of the Perfect competition model through its condition of 'perfect information.'

2.4 Monopoly and its Consequences

The opposite state of a market in perfect competition is one dominated by a single economic actor. This is called a monopoly when that actor is a seller and a monopsony when that actor is a buyer. Such market structures predominantly occur for two different reasons: (i) either due to legal regulation mandating that there is to be only one actor, or (ii) due to minimum economies of scale being so large in relation to the size of the market that only one firm can operate with maximum efficiency (a so called natural monopoly). In contrast to firms acting in a state of perfect competition, a monopolist which attempts to maximise its profits is thought to cause inefficiencies.[56]

A monopolist will not face restraints from competitors as it can raise its prices without the fear of its customers buying the goods of its competitors (as there are none). Instead, the major constraint on the monopolist's ability to raise the price of its goods is its consumers' willingness to pay. Presuming that the monopolist is not able to price discriminate, any price set by the monopolist will result in a different quantity consumed with a higher price resulting in a lower quantity consumed and vice-versa.[57] This is illustrated by the red demand curve in the following graph:

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[52] Jones and Sufrin (n 2) p. 7 and Faull and Nikpay (n 40) 1.63.
[53] Jones and Sufrin (n 2) p. 7 and Faull and Nikpay (n 40) 1.63.
[54] Jones and Sufrin (n 2) p. 7.
[55] Massimo Motta, *Competition Policy: Theory and Practice* (CUP 2004) pp. 55-66.
[56] Jones and Sufrin (n 2) p. 8-9 and Faull and Nikpay (n 40) 1.65-74.
[57] Jones and Sufrin (n 2) p. 8-9 and Faull and Nikpay (n 40) 1.65-74.

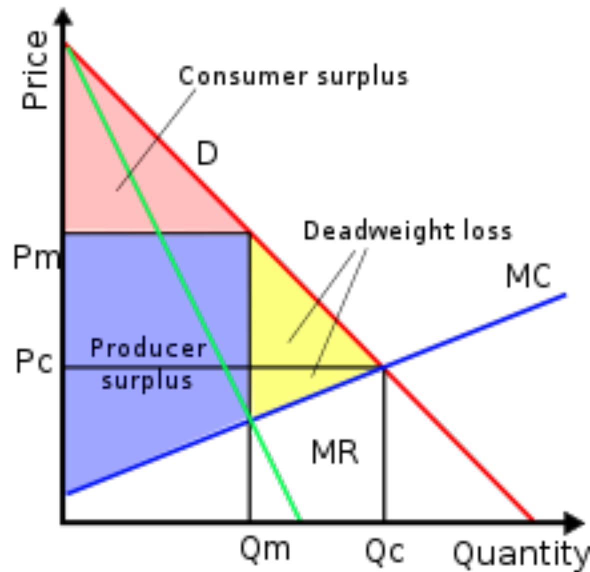

Figure 1.2: Monopoly Diagram.[58]

If the monopolist is a profit-maximising actor, it will attempt to price its goods to the level which maximises its profits. However, if the monopolist lowers its prices, it will lose out on potential revenue from customers with high reservation prices.[59] This means that the monopolist's profit-maximising price is where its marginal revenue equals the sum of its marginal cost and the loss incurred by the decreased revenue from those customers with higher reservation prices. This in turn makes it so that the marginal revenue will equal the marginal cost at a lesser quantity than in a competitive market and monopoly quantity will always be less than competitive quantity (see how Qm is less than Qc). A monopoly thus has two outcomes which can be deduced from this model alone. Firstly, consumer surplus is transferred from consumers to suppliers of the good since the monopolist charges higher prices than a competitive market and thus achieves supracompetitive profits. Secondly, consumers with reservation prices less than the monopolist's price will either not buy the product and transfer their consumption to other goods or not buy any goods at all. This loss of consumer surplus is the deadweight loss in the diagram above.[60]

[58] By SilverStar at English Wikipedia. Distributed under GFDL (http://www.gnu.org/copyleft/fdl.html), CC-BY-SA-3.0 (http://creativecommons.org/licenses/by-sa/3.0/) or CC BY 2.5 (https://creativecommons.org/licenses/by/2.5)] via Wikimedia Commons. < https://commons.wikimedia.org/wiki/File:Monopoly-surpluses.svg> accessed 4 August 2018.

[59] For example, Customer A with a higher reservation price than Customer B will also benefit if the Monopolist lowers its prices in order to induce Customer B to also buy the good.

[60] Jones and Sufrin (n 2) p. 8-9 and Faull and Nikpay (n 40) 1.65-75.

2.4.1 Inefficiencies

The consequences of a monopoly are, in contrast to a state of perfect competition, generally negative, even though some are disputed or complicated.

Monopolies result in *allocative inefficiency* in the form of deadweight loss. This represents buyers' needs which would have been fulfilled under more competitive circumstances, but which are now precluded due to the pricing decisions of the monopolist.

Distributive inefficiency is caused by monopolies. This is the redistributive effect of monopolies, which turn would-be consumer surplus into producer surplus instead. However, whether this is an objectionable outcome from the perspective of normative economics is under debate.[61]

Productive inefficiency results from a monopoly as there is less need to cut costs due to the absence of competitive pressure on the market. I chose to include both x-inefficiency and rent-seeking[62] into this, as both represent costs incurred by a monopolist which are not present in perfectly competitive markets. The first category includes costs such as excessive salaries and perks, overstaffing and lack of downward pressure on other production costs. The second category are costs incurred through attempts of the monopolist to preserve its position. For example, a monopolist firm may spend excessive funds on lobbying politicians to create legal barriers to entry, or invest in excessive capacity to scare off potential entrants. Somewhat contradictory, a monopoly can also yield significant *productive efficiency* if the minimum efficient scale is large in comparison to the market's size. If only one actor can produce efficiently at the time, this means that the monopoly may result in lower average total cost than a market with competition and several suppliers.[63] As an example, imagine if the demand quantity is 10,000 products at the market price and the smallest possible factory produces 10,000 products, i.e. the minimum efficient scale is achieved at the production of 10,000 products. In such a market, only one firm can operate efficiently and spread its fixed costs (the factory) over the maximum amount of products and achieve the lowest average total cost. Only as a monopoly would a firm reach this threshold, and thus a monopoly is required to achieve *productive efficiency.*

Whether a monopoly results in *dynamic inefficiency or efficiency* is the most disputed question concerning the results of monopoly. Some contend that monopolists have no incentive to innovate since it will only impose research costs while any benefits will simply "cannibalize its current sales"[64]. On the other hand, Austrian economist *Joseph Schumpeter* argued that monopolies are both uniquely in possession of the resources (supernormal profits) to be able to invest in sufficient innovation and are incentivised to do so as monopolies greatest competitive threat come from

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[61] Jones and Sufrin (n 2) p. 8-9.

[62] While rent-seeking is not strictly speaking a productive inefficiency, it is a cost incurred by the monopolist which is not incurred by firms in competitive markets and which society through consumers in the end unnecessarily pay for.

[63] Jones and Sufrin (n 2) p. 8-9.

[64] Geradin et al. (n 34) p. 67.

innovative contenders entering the market in the future. Since innovation is the most important factor in creating value for the masses, and not price, adherents of *Schumpeter's* view argue that short-term monopoly profits due to innovation should be accepted as they reward innovation and thus also spur it.[65] However, empirical evidence presented to the European Commission suggests that while innovation and spending on innovation depends on several factors, more competition generally leads to more innovation while monopolies decrease it.[66] *Motta* comes to a more qualified result after a review of the empiric evidence, finding that while competition is more conducive than monopolies to innovation, the lure of achieving monopoly might be what spurs competition in the first place. This leads him to conclude that allowing firms to achieve short-term monopolies can be rational to achieve maximum efficiency. This logic is exemplified by the public policy of intellectual property-rights, where innovators receive a legal monopoly for a certain time as a reward for their efforts (and to stimulate new ones).[67]

These stylised models are challenged by the fact that in the real world markets seldom operate in either perfect competition or under monopoly but rather in modes in-between. Moreover, a large constraint on these models usefulness stems from the theory of contestable markets. This theory relies upon two points: (i) that there are markets where the minimum efficient scale is so large in relation to the market that only one firm can produce at maximum efficiency at a time; and (ii) that the behaviour of any eventual monopoly inside this market will be constrained to some extent from monopoly pricing by potential entrants. This because investors will see the market as offering a higher potential return on their investment than competitive markets.[68] While the contestable markets theory is problematic since there may be factors which deter entry (see section 3.6) it infers that competition law should not intervene when there is strong potential competition. If it does so in a contestable market, it could instead simply prolong the life of an inefficient competitor, leading to efficiency losses for society.[69]

These complications limits the models of perfect competition and monopoly to the role of pointers for when competition law should intervene (never for perfect competition and sometimes for monopolies) and what different consequences that generally can be expected from different market structures.[70] As regards market states which are in between, as well as to determine whether they or a monopoly are constrained by potential

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[65] Jones and Sufrin (n 2) p. 12-13 and Faull and Nikpay (n 40) 1.65-74.

[66] *Communication from the Commission - A Pro-active Competition Policy for a Competitive Europe* COM/2004/0293 final and Faull and Nikpay (n 40) 1.125-126.

[67] Motta (n 55) pp. 55-66.

[68] Ibid. p. 73ff.

[69] This is incidentally the main point of the Chicago School which represents a neoliberal take on competition economics. See Jones and Sufrin (n 2) p. 14 and onwards for an introduction.

[69] William M. Landes and Richard A. Posner "Market Power in Antitrust Cases" (1981) 94 Harvard Law Review 937 and Jones and Sufrin (n 2) pp. 54-55 and Motta (n 55) p. 73ff.

[70] Geradin et al. (n 34) 2.34 and Jones and Sufrin (n 2) pp. 10-11.

competition a tool is needed to measure the state of the market to determine whether intervention is suitable. This tool is the concept of market power.

2.5 The Concept of Market Power

Market power is defined by economists as the ability of a firm to profitably set prices short-term above marginal cost and long-term above average total costs.[71] It occurs when undertakings are able to reduce their output and thus increase price above a competitive level. It is important to note that the ability to raise price is here more widely defined than the literal interpretation. It includes a multitude of competitive parameters, such as decreasing quality or variety of goods by the undertaking, limiting innovation etc. The concern of competition economics is that an undertaking may, through different measures, acquire, strengthen or exploit its market power in a manner beneficial to itself but with negative effects on its trading partners and, potentially, economic efficiency.[72]

Some also consider that market power, in addition to the power to affect competitive parameters, includes the ability to exclude competitors through either increasing their marginal costs of production or limiting their production.[73] As examples *Geradin et al.* give the buying shelf-space during competitors' advertising campaigns which increases competitors' cost and thus hinders attempt to compete as well as bundling or tying (making the purchase of a product conditional upon the purchase of complementary products) which may require competitors to enter multiple markets at the same time, thus increasing the risk which the potential entrant needs to take into account.[74]

The case for including this ability in the conception of market power makes sense based on two points. First, it is a fact that firms can choose to exercise their ability to "raise price" in order to exclude competitors (bundling can for example be viewed as the customer paying both the price of the product and with their ability to bargain in another transaction). Second, if an undertaking can exclude competitors from competing by increasing their costs, or at least threaten any vigorous competitor with such costs, it can thus raise prices even if the concerned market nominally seems competitive due to the number of firms. Thus, the firm can trade its ability to extract monopoly profits in the short term for more market power and thus greater ability to extract monopoly profits in the long term.

As market power is a potentially serious concern for competition economics it serves as the indicator for when competition law should intervene. As stated earlier, markets are often characterised by market structures between perfect competition and monopoly, for example oligopolistic, or monopolistic competition, wherein competition and market power may coexist. This in combination with the fact that there is a cost to

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[71] Landes and Posner (n 69) and Jones and Sufrin (n 2) pp. 54-55.
[72] See also the Guidance Paper § 11.
[73] R. Schmalensee "Another look at Market Power" (1982) 95 Harvard Law review 1789. See also Geradin et al. (n 34) 2.60.
[74] Geradin et al. (n 34) 2.60-61 and Guidance Paper § 48.

enforcement[75] of competition law leads to the conclusion that the existence of market power cannot automatically result in intervention. Economists agree on the premise that competition law should intervene when there is substantial and durable market power, that is market power of a significant degree for a significant duration of time.[76] Even if economists may disagree on the material meaning of these conditions,[77] the fact that market power can serve as a benchmark for intervention also creates a need to measure it. How this is assessed will be the topic of the next chapter.

[75] See chapter 5.3 concerning the evaluation of the cost of enforcement.
[76] Jones and Sufrin (n 2) p. 54.
[77] Geradin et al. (n 34) 2.58.

3 Market Power and its Dependence on the Choice of Economic Theory

3.1 Introduction

If substantial market power which endures for a significant period of time is the threshold for market power which competition law should optimally concern itself with, the next question is how market power can be measured. This chapter will detail the major ways of doing so, and in the process also illustrate how the process is fraught with potential errors and that as a result a wide "range of instruments, concepts, and criteria meant to proxy market power"[78] may need to be employed.[79] At a general level, a division can be made between *direct* and *indirect* methods of measuring market power.[80] This chapter will describe these approaches as well as some of their inherent problems.

3.2 The Direct Method – Measuring the Lack of Competetive Constraints

The direct method relies upon econometric[81] tools to directly estimate market power. Geradin et al. refers to four different directs methods to estimate market power. The first one is the Lerner Index. *Lerner*[82] originally proposed measuring market power by measuring the proportional difference between an undertakings price and its marginal cost to evaluate the undertaking's market power. The Lerner index is calculated as follows:

$$Lerner\ Index = \frac{Price - Marginal\ Cost}{Price} = \left(\frac{1}{Price - Elasticity\ of\ Demand\ for\ X's\ Product}\right)$$

The index gives a value on a scale from 0 to 1, denoting the firm's ability to profitably set its price in excess of its marginal cost, which also equals the inverse of the elasticity of demand for the firm's product. If an undertaking

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[78] Geradin et al. (n 34) 2.62.
[79] Ibid.
[80] Jones and Sufrin (n 2) p. 55.
[81] "The branch of economics concerned with the use of mathematical methods (especially statistics) in describing economic systems." See 'Econometrics' *Britannica Academic*, Encyclopædia Britannica (9 April 2018) <academic-eb-com.ludwig.lub.lu.se/levels/collegiate/article/econometrics/31925> accessed 21 June 2018
[82] Abba Lerner, 'The Concept of Monopoly and the Measurement of Monopoly Power' (1934) 1 The Review of Economic Studies 157. See also Landes and Posner (n 69).

faces perfect competition, its price will equal its marginal cost, and the equation will give a Lerner index of 0, thus showing no market power. On the other hand, if the undertaking holds substantial market power, its price will be substantially higher than its marginal cost and thus the Lerner index will yield a value higher than 0. In this model, a complete monopoly, with customers with inelastic demand, the Lerner index will be close to 1, as the marginal cost will be insignificant compared to the price ((1- ~0)/1= ~1).[83]

There are however three problems which render the Lerner index problematic, and often unusable. Firstly, only relying on marginal cost may risk overestimating market power significantly in industries where fixed costs are high in comparison to variable costs. Marginal costs in the short-term corresponds to variable costs, and does not take fixed costs into account. Thus, a price which reflects the recuperation of the concerned firms fixed costs can significantly exceed marginal cost and appear as the exercise of substantial market power. Similarly, overestimation of market power may also occur in industries where marginal costs are extremely low or negligent, e.g. digital software industries where iterations of the product are in essence free for the undertaking. These problems can be solved by taking a more dynamic perspective, and assessing the price against long-run marginal cost (which in principle equals average total cost.).[84] Secondly, in monopoly situations, there might be an inflation in marginal costs because of productive inefficiency,[85] thus an undertaking may have more market power than is actually indicated by the Lerner index. Thirdly and perhaps most importantly, empirical studies have shown that undertakings do not in fact estimate their marginal costs and to expect competition authorities to do so is thus not realistic.[86]

A second direct method is to rely upon high profits as an indicator of market power. However, this may miss accumulations of market power for the same reason as the Lerner index: productive inefficiencies may preclude profits. Furthermore, the profit-approach may lead to findings of market power when the firm concerned has simply achieved high productive or dynamic efficiency. In the real world, innovation and other factors which improve productive or dynamic efficiency may not transfer immediately between firms as they do in perfect competition. To punish profits resulting from such efficiency risks inhibiting both efficient undertakings and deterring innovation.[87]

A third direct method is price comparisons. This method relies upon using prices from a known, competitive market as benchmarks to compare against the actual market. The method is useful if there are such benchmarks, but due to differences in market conditions this is rarely the case.[88]

The fourth method measures the residual demand curve facing the concerned firm. The residual demand curve is the demand curve facing an

[83] Geradin et al. (n 34) 2.62-64.
[84] Geradin et al. (n 34) 2.62-72.
[85] See section 2.4.1.
[86] Geradin et al. (n 34) 2.62-72.
[87] Geradin et al. (n 34) 2.73-77.
[88] Geradin et al. (n 34) 2.78-80.

individual firm acting in the market and is a function of the demand curve for the whole market minus the quantity supplied by other firms. If the curve is so inelastic that the firm can raise its prices without losing sufficient customers to competitors or other consumption, the firm has sufficient market power to give reason for intervention by competition law. This approach, while simple and true to theory, is limited in use by a pervasive lack of sufficient data.[89]

In conclusion, the direct estimation methods are excellent if they are applicable and their static nature can be remedied by using measurements from longer periods of time. However, the lack of data and limitation on factors which can be used to assess whether market power exists, has lead most competition authorities to instead embrace a second, structural approach.[90]

3.3 The Indirect Method – Finding Market Power by Proxy

In response to the problem of data, the indirect method relies upon identifying and analysing different proxies for market power in order to sidestep the problems associated with the direct method.[91] The indirect method first requires the definition of a relevant market. After this is completed, market power is estimated through the measurement of competitive constraints. The *actual competition* facing the undertaking is analysed, , through the consideration of the concerned undertaking's and its competitors' shares of the relevant market, and the *potential competition* facing the undertaking, through an analysis of any hindrances to such competition in the form of barriers to entry. Finally, *countervailing buyer power* is also considered, that is if the undertaking's trading partner have such bargaining power that they can constrain it.

3.4 The Relevant Market – a Matter of Substitution

The relevant market definition is concerned with the competitive constraints exercised by interchangeable products and rival suppliers with interchangeable production. It is identified using the hypothetical monopolist test. The test posits that the relevant market is the smallest range of products that a hypothetical monopolist would deem worthwhile to monopolise because competitive pressure from product or geographic substitution would be sufficiently small so that price could be raised profitably. Such a price raise is profitable if the increased revenue due to the

[89] Geradin et al. (n 34) 2.81-82.
[90] Geradin et al. (n 34) 2.62- and Jones and Sufrin (n 2) p. 55.
[91] Robert O'Donoghue & Jorge Atilano Padilla *The law and economics of Article 102 TFEU* (2 edn, Hart Publishing Oxford 2013) pp. 99-100 and Geradin et al. (n 34) 2.83.

higher price is not offset due to a decrease demand due to that price increase. The range of interchangeable products is determined from both a demand and supply perspective.[92]

The interchangeability between products or geographic areas can be determined through either qualitative or quantitative methods. Qualitative methods commonly apply the trilogy of price, characteristics and use to determine whether products are interchangeable. Quantitative methods usually involve the small but significant non-transitory increase in price (abbreviated SSNIP) test, where prices are hypothetically raised by 5-10 % in order to check whether consumers would switch to other products. Products are viewed as demand-side substitutes when consumers would switch from the price-raised product to the other to such a degree that the price raise would be unprofitable. If products are found to be interchangeable, a consecutive SSNIP test is then carried out for those two products against a third one. Supply-side substitution occurs if suppliers of other products would be induced to change their production to the product in question due to the price rise to a degree which renders that price raise unprofitable. Geographic substitution occurs when a price raise would induce buyers to buy products from other geographic areas instead of the locally produced good and is sufficient to render the price increase unprofitable. A relevant market is found after iterations of the SSNIP test no longer yields interchangeable goods.[93] The SSNIP test is useful because it offers an economically rigorous approach for determining whether products act as competitive constraints or not.[94]

However, there are some problems with the SSNIP test. First of all, the test is susceptible to the "*Cellophane fallacy*".[95] Posit that an undertaking has substantial market power and thus the ability to raise its prices above the competitive level. In case that undertaking has an incentive to maximise its profits, the price is likely already supracompetitive. If so, when the SSNIP test is applied the outcome of the test might be that consumers would switch to another product and that this and the undertaking's products would be considered in the same market. This leads to an overly wide-market which identifies products as competitive constraints even though the undertaking concerned is already able to exercise substantial market power without being constrained by them.

The Cellophane Fallacy is hard to guard against, as most methods which can correct it, such as estimating competitive prices, comparing against other industries with similar market conditions etc., run into the same problems as the direct method, i.e. a lack of reliable data. The option open to competition authorities in such cases are to use any data available as well as to complement with qualitative analysis.[96] Moreover, the SSNIP test, and the relevant market definition itself, has been criticised for leading to

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[92] Jones and Sufrin (n 2) pp. 55-58.

[93] Jones and Sufrin (n 2) pp. 55-58.

[94] Jones and Sufrin (n 2) p. 62

[95] Named after the *United States v. E.I. Du Pont De Nemours & Co* 351 US 377 (1956) where DuPont argued that cellophane was in the same market as other packaging material due to the high cross-elasticity of demand between the products. However, this missed the fact that DuPont was already exercising market power and had substantially raised prices.

[96] O'Donoghue and Padilla (n 91) pp. 113-115.

too absolutist results, where products are either in or out of the market. While this might be problematic and lead to the exercise being slightly inaccurate as the competitive restraint through which products exercise through substitution on each other is a matter of degree of substitutability, to adopt other approaches might cause the same problems as most direct measurements of market power: a pervasive lack of data.[97]

3.5 Market Shares as Actual Competition

After that a relevant market has been established, the actual competition facing the undertaking is estimated. This is done through analysing the market shares of the concerned undertaking, those of its competitors and the durability of the undertakings market shares.

If the undertaking has a majority of the market share this can be taken to indicate that it has substantial market power, as the consecutive SSNIP-tests has not yielded that there are no or few substitutes produced by competitors which consumers would switch to in the event of price raises.

Moreover, the shares of competitors can be taken into account, if most have much smaller market shares than the investigated undertaking, they may be the kind of price-takers as they less likely to be able to effectively compete with the bigger undertaking.[98]

Finally, the durability of the market shares are also examined, and for substantial market power to exist, it is usually required that large market shares have been held for several years.[99] To use market shares to determine substantial market power is thus a complicated process, with various factor to take into account.

3.6 Barriers to Entry for Potential Competitors

The analysis on potential competition primarily considers barriers to entry for potential entrants. However, the concept also includes barriers to expansion for existing competitors. Barriers to entry analysis is usually distinguished from supply-side substitution on the basis of the swiftness of the action, where barriers to entry analysis is long-term and supply-side substitution short-term.[100]

What actually constitutes a barrier to entry is in dispute. Traditionally, the academic debate has been divided into two sides. On the one hand, *Bain* proposed a wide definition of a barrier to entry as any advantage which an incumbent firm has over potential competitors, as it is reflected in the incumbent's ability to raise prices above the competitive

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[97] However, see for example J. Vickers, "Market Power in Competition Cases" (2006) 2 European Competition Journal 3 which proposes a weighted market share approach.

[98] See for example Landes and Posner (n 69).

[99] Richard Whish and David Bailey *Competition Law* (8th edn, OUP 2015) pp. 44-45.

[100] Jones and Sufrin (n 2) p. 68.

level without attracting new entrants. *Stigler* gives a narrower definition which only includes such costs which new entrants have to bear but which incumbents do not. *Bain's* definition has been argued to be too wide, as it includes barriers to entry factors which actually produce efficiency, for example large economies of scale. *Stigler's* definition on the other hand has been criticised for for being overly narrow, and not including factors which deter entry in reality, such as the requirement of large investments and the risk of losing these if the entry fails.[101]

The OECD Policy Roundtable Report on barriers to entry[102] partly side-stepped the debate by defining barriers to entry in the practical sense as "an impediment that makes it more difficult for a firm to enter the market"[103] and by noting that competition law analysis of barriers to entry is usually concerned with whether "entry will be likely, timely and sufficient to remove concerns about possible anticompetitive effects in a given matter."[104] The OECD Report also discusses the important distinction between strategic and structural barriers to entry, although it did find that the categories are not always clear-cut.[105]

Structural barriers to entry deal with the conditions of the concerned industry and market while strategic barriers deal with the behaviours of the incumbent firms.[106] One concept which permeates the discussion of barriers to entry are *sunk costs*, i.e. costs which undertakings cannot recover upon exiting the market.[107] Sunk costs can deter entry in two ways. Firstly, a potential entrant must consider the risk that even if it can produce more efficiently than the incumbent firm, this might not be sufficient to make entry profitable. The reason for this is that the entrant and incumbent have different incentives and can come to different pricing decisions. While the entrant needs to be able to price its goods to recoup sunk costs, the incumbent does not. As the incumbent has already incurred the sunk costs, and these are unrecoverable, it can rationally price below average total cost as long as this covers variable costs, as it will still be more profitable than leaving the market and losing the sunk costs for nothing. Secondly, sunk costs can deter entry as it is an unavoidable loss if the entry fails. As this is virtually always a possibility with new entry, large sunk costs pose risks which can go a long way to deter entry. The OECD Report gives examples of sunk costs such as start-up phase losses, human capital investments (e.g. training costs), investment in fixed capital with limited resale value, advertisement costs, specialised R&D and compliance costs.[108]

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[101] Jones and Sufrin (n 2) pp. 79-81 and Geradin et al. (n 34) 2.93-99.
[102] OECD Policy Roundtable on Barriers to Entry (DAF/COMP(2005)42) <https://www.oecd.org/competition/abuse/36344429.pdf> accessed 13 July 2018.
[103] Ibid. 1.0.
[104] Ibid. Executive Summary § 4.
[105] Ibid § 5.
[106] Geradin et al. (n 34) 2.62.
[107] OECD Policy Roundtable on Barriers to Entry (n 102) 3.1 and Jones and Sufrin (n 2) p. 81.
[108] OECD Policy Roundtable on Barriers to Entry (n 102) 3.1.

3.6.1 Structural Barriers to Entry

Structural barriers to entry deal with the conditions of the concerned industry and market. The OECD Report gives ten examples of structural barriers to entry.

Absolute cost advantages can exist when incumbents have access to exclusive technology or are not required to buy environmental protection equipment which new entrants must obtain.

Economies of scale and scope can deter entry as they allow incumbents to price below entrants. The OECD Report argues that they do not affect entry unless they are combined with sunk costs, while noting that large sunk costs and large economies of scale and scope are often correlated.[109]

High capital costs are as disputed as economies of scale. They include both total costs to enter the market, and the borrowing cost for attaining that capital. Opponents argue that they should not be considered as barriers to entry since capital markets will make capital available with the costs reflecting the risk that the capital provider takes. Proponents put forward two different arguments. The first is that capital markets may be tainted with market failures which results in unnecessarily high capital costs. The second is that since business people consider high capital costs as a reason not to enter markets, they should be considered as barriers to entry. The OECD Report states that they can be considered as barriers to entry when they may deter or hinder entry, especially when they co-exist with substantial sunk costs.[110]

Reputational effects are structural barriers to entry when entrants have to make substantial investments to catch or gain customers due to the nature of the product or market. The OECD differentiates such effects from the strategic barriers to entry which may arise due to excessive advertisement by incumbents, although naturally reality is not always so clear-cut. Reputation effects as structural barriers can arise when there are high switching costs for customers. If the cost of investigating the utility of a new product is very high compared to the potential benefit of switching from an incumbent to an entrant, customers may prefer to rely on the established brand instead of spending resources on comparing the products.[111]

Network effects appear when the utility of the good changes through its consumption by other customers. Examples of positive network effects (where the utility of the good increases by other consumers' consumption of it) are social and telephone networks. In such cases, new entrants face a disadvantage compared to incumbents if the latter have already formed substantial 'networks' of consumers.

Legal/Regulatory barriers prevent entry by imposing restrictions and rules on entrants into the market, even if they may serve social goals. If they are lobbied for by incumbents, they may be considered as strategic barriers.

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[109] OECD Policy Roundtable on Barriers to Entry (n 102).

[110] Ibid. and Jones and Sufrin (n 2) pp. 82-83.

[111] OECD Policy Roundtable on Barriers to Entry (n 102). See also Geradin et al. (n 34) 2.110-112 which divides this into several categories.

Barriers to exit are expenses which are incurred when exiting the market and are potential sunk costs which an entrant has to take into account when assessing the risk of entry. Moreover, they may also induce incumbents to compete in a more predatory manner, as the cost of exit is high.

First-mover advantages arise when the incumbents benefit from being the first firm(s) on the market and the same benefits are not available to entrants. Examples include network effects and reputation.

Vertical integration arises when firms which conduct activities up and down the supply chain in the relevant product, i.e. are vertically integrated, attain benefits from this which are not available to entrants. When such firms try to exploit this advantage by raising costs and transferring profits to other stages of supply, this is a strategic barrier and denoted as a margin squeeze.[112]

3.6.2 Strategic Barriers to Entry

As stated earlier, strategic barriers to entry are created by the behaviour of incumbent firms and are not structural conditions of the market itself. Two important considerations should be noted here. First, since strategic barriers are created by incumbents' behaviour, they only deter entry if potential entrants view incumbent firms as likely to indulge in such behaviour. Secondly, the concept of strategic barriers to entry has an inherent duality. They may at the same time be signals of a position of substantial market power (dominance) as well as the exercise or leveraging of such a position (abuse of such dominance). This is relevant for EU law which to a certain extent separates its treatment of these issues. This is discussed in the next chapter.

Predatory pricing strategies by incumbents involve pricing below cost in order to signal to potential entrants that entry will be costly. *Limit pricing* occurs when an incumbent set its prices above cost but not at its profit-maximising level in order to decrease the residual demand available to possible entrants. This has the potential of discouraging entrants to enter the market if the market is characterised by economies of scale, as it limits the ability of new entrants to achieve it. Moreover, limit pricing can also (falsely) signal that there are no profits to make for entrants in the market, and thus reduce the possibility of entry.

Overinvestment in capacity and sunk costs occurs when an incumbent attempts to discourage potential entrants by investing more than necessary in capacity and sunk costs. This creates a barrier to potential entrants as incumbents indicate their ability to flood the market in order to reduce residual demand as well as show their determination to remain in the market (the threat of losing the sunk costs for nothing).

Loyalty rebates and bundle rebates are rebates which reward the buying of significant quantities or complementary purchases. They can be used by undertakings with substantial market power to tie customers to themselves and make residual demands for potential entrants smaller.

[112] OECD Policy Roundtable on Barriers to Entry (n 102) 3.1.

Tied sales is similar and occurs when undertakings only offer products together. This may allow incumbents to exploit market power in one market and create market power in another one (if they have substantial market power in the first one consumers might have no rational choice but to buy the tied products.) Moreover, if successful it requires entrants to enter two markets simultaneously, which increases risk (and benefit) and may deter some firms from entry.

Product differentiation and advertisement can be considered a strategic barrier to entry if it is excessive as it then creates unnecessary sunk costs (i.e. risk to potential entrants). However, advertisement can also enable competition on the market and indicate a market which is open to entrants as advertisement indicates that the market is contestable.

Exclusive commercial arrangements are vertical contracts which prevent trading partners to firms on the market from switching between firms on the market. This can reduce residual demand on the market and make demand in general more inelastic short-term. This thus deters entry by making it potentially less profitable.

Patent hoarding occurs when incumbents amass intellectual property rights which they do not require for their own production but which would enable entrants to compete with different production methods. The risk of incumbents using these to sue entrants for intellectual property infringements thus deters entry.[113]

3.7 Countervailing Buyer Power

In addition to potential and actual competition, the exercise of market power can also be constrained by the bargaining power of the concerned undertakings trading partners. For this to be a credible threat however, it is necessary that the trading partner is able to take its business elsewhere or to develop a competing operation. Thus, this in essence may require an analysis of both actual competition (the threat of the trading partner taking its business to a competitor) and potential competition (the threat of the trading partner entering into competition with the undertaking) but in the context of a very strong trading partner. Moreover, it must be noted that if the trading partner does not shield the rest of the undertakings trading partners (through for example engaging in arbitrage) there may in reality be two markets (i) the trade between the undertaking and its powerful trading partner and (ii) the trade between the undertaking and its less powerful trading partners. In such a situation, the undertaking may have substantial market power in the latter market if not the former.[114]

3.8 Conclusion

This chapter has discussed the different methods with which market power can be assessed, and that a major limit on the availability of direct methods

[113] OECD Policy Roundtable on Barriers to Entry (n 102) 3.1, Geradin et al. (n 34) 2.118-124 and Jones and Sufrin (n 2) pp. 82-87.
[114] Whish and Bailey (n 99) p. 47.

to chose from is lack of reliable data. This has forced many competition authorities to rely on an indirect method which employs proxy factors, such as the definition of a relevant market and barriers to entry analysis, to determine the existence of substantial market power. The presentation of the academic discourse and debate shows that what method and factors indicate market power are also in considerable dispute.

4 Determining Dominance - Ambiguity in Article 102 TFEU

4.1 Introduction

This chapter seeks to describe and define dominance as a legal concept under EU competition law. It uses a two-pronged approach to accomplish this. First, a legal investigation into the EU legal sources, pre-eminently the CJEU's case law, is presented which reveals how the Court, the penultimate authority on the meaning of EU law, has defined the concept. The ambiguity of its definition has led to considerable discussion in academia, and some of the different views in this discussion are presented in order to attempt to illuminate what a dominant position actually is. The second prong involves a description of how dominance is determined by EU law and analyses whether this impacts upon the actual meaning of dominance.

4.2 Defining Dominance

There is considerable ambiguity in how dominance is defined in EU law. However, the basic premise is that EU law regulates the unilateral behaviour of firms which have established substantial market power through Article 102(1) TFEU:

> Any abuse by one or more undertakings of a dominant position within the internal market or in a substantial part of it shall be prohibited as incompatible with the internal market in so far as it may affect trade between Member States."

The provision prohibits the abuse of an individual or collectively held dominant position within a substantial part of the internal market which may affect trade between the Member States. Since *Continental Can*[115]*,* the CJEU has held that the application of Article 102 TFEU involves a two-stage test: First, the dominance of a firm must be determined and only subsequently can it be considered whether its conduct constitutes abuse.[116] In the case, the CJEU held that a an acquisition of control can constitute abuse if it adversely affects the structure of competition through strengthening the dominant position of one of the parties. However, as neither party in the case was proven to be dominant the requirements in

[115] C-6/72 *Europemballage Corporation and Continental Can Company v Commission* ECLI:EU:C:1973:22.

[116] Jones and Sufrin (n 2) p. 289.

Article 102 TFEU were not fulfilled.[117] Subsequently, the CJEU developed the definition for a dominant position in § 65 of *United Brands*[118]:

> The dominant position thus referred to by Article [102] relates to a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers.

This definition was developed by the CJEU in § 39 of *Hoffmann-La Roche*[119] where the Court qualified that a dominant position as described in § 65 of *United Brands*:

> […] does not preclude some competition, which it does where there is a monopoly or a quasi-monopoly, but enables the undertaking which profits by it, if not to determine, at least to have an appreciable influence on the conditions under which that competition will develop, and in any case to act largely in disregard of it so long as such conduct does not operate to its detriment.

This definition is settled case law.[120] A dominant position can also exist when the undertaking is a buyer and not a seller, and then the undertaking must be independent of its suppliers as the CJEU for example found in *British Airways.*[121] However, what the definition actually means is unclear and in dispute.[122] *Monti*[123] proposes four ways in which dominance as it appears in the Courts' case law and the Commission's decisional practice can be conceptualised. The first is substantial market power, i.e. the economic ability to increase price and reduce output as discussed in section 2.5 and chapter 3. The second is the commercial power of the undertaking in the form of its economic resources and capabilities. *Monti* argues that the Court's case law is a mix of these approaches while he offers two additional conceptualisations of dominance. The third is a definition of dominance based on the ability to exclude competitors and the fourth is seeing dominance as a jurisdictional criterion for the application of Article 102 TFEU.[124]

To return to the Court's definition, it states that the undertaking concerned must have the power to behave independently to an appreciable extent of its competitors, customers and consumers. *Walker and Azevedo* argue that this definition does not make sense, because firms are in principle never able to act independently from their customers, rather the key issue is

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[117] C-6/72 *Europemballage Corporation and Continental Can Company v Commission* ECLI:EU:C:1973:22 §§ 18-37.
[118] C-27/76 *United Brands v Commission* EU:C:1978:22.
[119] C-85/76 *Hoffmann-La Roche v Commission* EU:C:1979:36.
[120] C-457/10 P *AstraZeneca v Commission* EU:C:2012:770 para 175. See also Jones and Sufrin (n 2) p. 286.
[121] C-95/04 P *British Airways v Commission* EU:C:2007:166 and *Jones and Sufrin (n 2)* p. 286.
[122] Jones and Sufrin (n 2) p. 284-291.
[123] Giorgi Monti 'The Concept of Dominance in Article 82*'* 2006 2 European Competition Journal Special Issue 3, 11.
[124] Ibid. p. 31.

whether their behaviour is or is not constrained by competitors.[125] They are joined by *Jones and Sufrin* who criticise the concept for being more "nebulous" and unclear than a definition based on power over price. It is noteworthy that while the CJEU has not done so explicitly, the Commission in its Guidance Paper[126], joined by both the General Court in *AstraZeneca*[127] and senior commentators[128], has interpreted § 65 of *United Brands* to mean that the concerned undertaking has substantial market power, i.e. it can increase price[129] and reduce output without being constrained by competition from its competitors.

However, the Court's definition does not end there. It also includes the ability of the undertaking to prevent effective competition to develop or influence the conditions under which it develops. This implies that the undertaking is able to protect its market position through exclusionary behaviour, i.e. through the creation of strategic barriers to entry, which often constitutes abuse under Article 102.[130]

This has led to a discussion in the academia, where *Geradin et al.* argues that this would be problematic, as according to *Continental Can*, abuse cannot be proven before a dominant position is established. *Geradin et al.* argues that these are not not separate elements but one and the same,[131] and they propose that market power in the form of exclusionary ability does does not factor into whether a firm is dominant. This because doing so would undermine the function of dominance as a filter or shield regarding the finding of abuse which is the result of the Court's approach from Continental Can.[132]

Faull and Nikpay among others rejects this point and argue that the are two elements in the definition of dominance: (i) a prevention of competition and (ii) independence from competition of the undertaking concerned.[133] They argue that the Court has adopted a behavioural definition of dominance through taking exclusionary power into account. However, they point out that this in practice does not conflict with the structural one adopted by the Commission and others as the ability to harm competition is constrained by competition unless there is substantial market power.[134]

I find that the CJEU's case law puts both of these lines of argumentation in question, although it lends more support to *Faull and Nikpay*. In § 68 of *United Brands*, the Court held that in determining dominance it "may be advisable to take account if need be of the facts put

[125] J.P Azevedo and M. Walker, "Dominance: Meaning and Measurement" 2002 ECLR 363.
[126] The Guidance Paper §§ 9-11.
[127] T-321/05 *AstraZeneca v Commission* EU:T:2010:266 § 267.
[128] Jones and Sufrin (n 2) pp. 284-291.
[129] An increase in price is here a wide concept and "includes the power to maintain prices above the competitive level and is used as shorthand for the various ways in which the parameters of competition – such as prices, output, innovation, the variety or quality of goods or services – can be influence to the advantage of the dominant undertaking and to the detriment of the Consumer". The Guidance Paper § 11.
[130] Jones and Sufrin (n 2) p. 290 and Whish and Bailey (n 99) pp. 196-197.
[131] Geradin et al. (n 34) 4.B.
[132] Geradin et al. (n 34) 4.57-48.
[133] Faull and Nikpay (n 40) 4.124-126.
[134] Ibid 4.133-134.

forward as acts amounting to abuses without necessarily having to acknowledge that they are abuses." In both *United Brands* and *Hoffmann-La Roche*, the concerned undertakings had fended off intense competition through exclusionary conduct, either through price adaption or through pressure on intermediaries. The investigated undertakings were thus able to act without account of competition.[135] Thus, the ability of an undertaking to exclude has in the case law of the CJEU been seen as a factor indicating dominance, and it is not necessarily conditioned upon the undertaking having power over price. The division of dominance and abuse from *Continental Can* shall in my opinion thus only prevent the finding of abuse before dominance is established.

Analysing this debate with the concepts offered by *Monti*, we can see that dominance can be found both on the basis of an undertaking having substantial market power and the ability for the undertaking to increase its own market power by excluding competitors. Moreover, dominance also functions as a jurisdictional criterion, as is shown by *Continental Can.*

Monti also argues that the CJEU conceives of dominance as equalling commercial power.[136] *Monti* cites *United Brands* as an example of this. In the case, the CJEU placed a large emphasis on the United Brands vertical integration and easy access to commercial capital.[137] While this is an indication of the commercial power of United Brands, I disagree with *Monti's* argument on the basis of the context in the case. Instead of these factors simply showing United Brands commercial strength, they enabled it to (i) exclude competitors through pressure on intermediaries that no other undertaking could bring and (ii) fund exclusionary pricing strategies. Thus, relying of these factors constitutes an analysis of barriers to entry, a key part in determining substantial market power. Thus, I find that when the CJEU takes such factors into account, it does so because it enables the undertaking to raise price or to exclude competitors.[138]

This leads me to draw two conclusions: (i) Viewing the Court's concept of dominance as commercial power serves little purpose but to critique the Court's approach in a straw man-like manner and (ii) while the definition of dominance is useful in understanding what factors EU law proscribes to take into account determining it, the method by which it does so must also be considered. This is necessary because the definition of a dominant position is not only determined by legal statements but also by the method used to investigate it.

The determination of dominance in EU law follows the two-stage assessment described as the indirect method in section 3.3. The first stage is the definition of the relevant market, which the CJEU held in *Continental Can* to be a necessary condition, for the determination of dominance under

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[135] C-27/76 *United Brands v Commission* EU:C:1978:22 § 119 and C-85/76 *Hoffmann-La Roche v Commission* EU:C:1979:36 §§ 75-76.

[136] Monti 'The Concept of Dominance in Article 82*'* (n 123) p. 31.

[137] C-27/76 *United Brands v Commission* EU:C:1978:22 § 122.

[138] This does not mean that the Court does not at times find market power or exclusionary ability although it does not exist. Similarly, it may conflate commercial power with these concepts. It simply means that the Court's intent seems to be to find dominance using market power and exclusionary ability, and not commercial strength, as the relevant criteria.

Article 102.[139] After this, the competitive constraints facing the undertaking are assessed, primarily through determining its share of the market and 'other factors indicating dominance' which primarily but not exclusively consist of barriers to entry.[140] The following sections will detail how the relevant market is determined according to EU law.

4.3 The Art of Drawing Lines - Defining the Relevant Market in EU Law

When a relevant market is defined in EU law, the legal approach resembles the economic method described in section 3.4. As the methods described therein are employed also in applying the law, this section instead has a narrower focus. In it the way the way markets have been defined in EU law is analysed, and presented through three main points. In (i) the early cases, a qualitative definition of competing products led to overly narrow relevant markets, (ii) the combined use of qualitative and quantitative factors in determining relevant markets have reduced these problems and (iii) the Courts have traditionally ceded a large discretion to the Commission in defining the relevant markets. While the Court's nominally are now applying a stricter standard of review, the implications of this for the definition of the relevant market are not yet clear.

Firstly, the definition of a relevant market in EU law uses a combination of quantitative and qualitative approaches. The CJEU originally adopted a definition of the relevant markets based on a qualitative approach. In *Continental Can* the Court held:

> [For the determination of Dominance] the definition of a relevant market is of essential significance, for the possibilities of competition can only be judged in relation to those characteristics of the products in question by virtue of which those products are particularly apt to satisfy an inelastic need and are only to a limited extent interchangeable with other products.[141]

This approach focused on characteristics, intended use and price to determine whether products where interchangeable.[142] A particularly infamous example is *United Brands* where the CJEU found that bananas are a separate market as they have qualities which makes them especially suitable for the old, sick and young. From an economic perspective this is problematic, because a firm is not restrained in its pricing policy by customers which have inelastic demand (i.e. no access to substitutes) but rather customers which easily can switch to other products. It is if this latter group would to a sufficiently large degree switch to for example apples, that

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[139] C-6/72 *Europemballage Corporation and Continental Can Company v Commission* ECLI:EU:C:1973:22 § 32. This is confirmed in later cases by the Courts, see for example T-321/05 *AstraZeneca v Commission* EU:T:2010:266 § 30.
[140] Jones and Sufrin (n 2) p. 290.
[141] C-6/72 *Europemballage Corporation and Continental Can Company v Commission* ECLI:EU:C:1973:22 § 32.
[142] Jones and Sufrin (n 2) pp. 291-294.

would result in that bananas and apples are part of the same market.[143] After the review of its policy regarding Article 102 however, the Commission incorporated the use of quantitative methods in the form of the SSNIP test into its guidelines.[144] However, qualitative methods are still used where appropriate, for example when deciding which products to apply the SSNIP test to,[145] as well as when there is a lack of data or when verifying the findings of quantitive methods. A good example is the *France Télécom* case, where the General Court applied a qualitative approach before conducting a SSNIP test.[146] Thus, the errors of using only a qualitative approach have been mitigated by complementing such methods with quantitative ones.

Moreover, EU law's reliance on a diversity of factors when establishing a relevant market is motivated by the risk of cellophane fallacies when dealing with potentially dominant firms as well as the complexity of real-world markets. The likelihood for this error is significant when dealing with undertakings which potentially have and are exercising substantial market power.[147] In light of this, the use of both qualitative and quantitative methods to establish the relevant market is appropriate. EU law is also flexible in taking into account the peculiarities which may arise in real-life markets. For example, through consideration of the "structure of demand and supply" EU Courts and the Commission are able to qualitatively take into account situations where there is no competition between identical goods and situations where goods which are not substitutes for each other are in the same market.[148] An illuminating example is the *Michelin I*[149] case, where originally equipped tires and replacement tires, which were identical, where in different markets due to the conditions of their purchase. The former were bought by car manufacturers and the latter by users of the cars or trucks and because of the difference in trading conditions these were considered separate markets.[150]

Thirdly, when the definition of the relevant market has been reviewed the EU Courts have to a certain extent deferred to the Commission's discretion. The balance the Courts have struck here is illustrated by the following statement by the General Court in § 47 of *Clearstream*[151]:

> It should be noted, at the outset, that in so far as the definition of the product market involves complex economic assessments on the part of the Commission, it is subject to only limited review by the Community judicature. However, this does not prevent the Community judicature from examining the Commission's assessment of economic data. It is required to decide whether the Commission based its assessment on accurate,

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[143] Jones and Sufrin (n 2) p. 71.
[144] See Commission Notice on the definition of the relevant market for the purposes of Community competition law (1997) OJ C 372/5 § 15.
[145] See Commission Notice on the definition of the relevant market for the purposes of Community competition law (1997) OJ C 372/5 § 36.
[146] T-340/03 *France Télécom v. Commission* EU:T:2007:22 §§ 82-86 and 87-89.
[147] See section 3.2.
[148] Jones and Sufrin (n 2) pp. 291-294.
[149] C-322/81 *Michelin v Commission* EU:C:1983:313.
[150] C-322/81 *Michelin v Commission* EU:C:1983:313 § 38.
[151] T-301/04 *Clearstream* EU:T:2009:317.

> reliable and coherent evidence which contains all the relevant data that must be taken into consideration in appraising a complex situation and is capable of substantiating the conclusions drawn from it (see Case T-201/04 Microsoft v Commission [2007] ECR II‑3601, paragraph 482, and the case law cited).

The Courts would only annul the Commission's decision on the basis of an inaccurately defined market if they find that it has committed a manifest error of assessment in doing so.[152] Even so, as can be seen from *Continental Can,* where the decision was annulled because the Commission did not consider the possibility of supply-side substitution, the Courts may annul decisions if the Commission does not consider arguments by the undertakings or examine the factors required by the case law. As follows from § 48 in *Clearstream,* this is quite an expansive list:

> In that regard, according to settled case law, for the purposes of investigating the possibly dominant position of an undertaking on a given product market, the possibilities of competition must be judged in the context of the market comprising the totality of the products or services which, with respect to their characteristics, are particularly suitable for satisfying constant needs and are only to a limited extent interchangeable with other products or services. […]an examination to that end cannot be limited solely to the objective characteristics of the relevant services, but the competitive conditions and the structure of supply and demand on the market must also be taken into consideration (Case 322/81 *Michelin* v *Commission* [1983] ECR 3461, paragraph 37; Case T-65/96 *Kish Glass* v *Commission* [2000] ECR II‑1885, paragraph 62; and Case T-219/99 *British Airways* v *Commission* [2003] ECR II‑5917, paragraph 91).

Since the early 2010s, the CJEU has not spoken of manifest error of assessments but instead requires an "in-depth review"[153]. This is a promising step towards ensuring the full application of law in competition cases and will possibly reduce the risk of errors. However, whether this has actually resulted in more stringency in adherence to the law in Commission's enforcement is outside the scope of this thesis.

The definition of a relevant market is, as was established predominantly through section 3.4, a process fraught with error. While this was worsened by the fact that the CJEU in early cases seems to have accepted rationales which were not economically sound, the holistic approach which the Commission is currently employing is satisfactory in light of economic theory. Moreover, while the Courts potential adoption of a more stringent approach to judicial review could lessen the remaining risk of error, investigating whether this is empirically the case is outside the scope of this thesis. Thus, without further ado, let us proceed to how market shares are used in determining dominance.

4.4 Determining Dominance

After a relevant market has been established, the dominance of an undertaking is according to the CJEU determined on the basis of "a

[152] Ibid. § 73.
[153] Jones and Sufrin (n 2) p. 262.

combination of several factors which, taken separately, are not necessarily determinative."[154] According to the Commission in its Guidance Paper on Article 102, this assessment aims to determine the market power of the undertaking through an analysis of the competitive structure on the market. In particular, (i) the constraints imposed by actual competitors are measured through the undertakings' share of the relevant market; (ii) constraints flowing from the risk of future expansion by actual competitors and entry by potential competitors are assessed with an analysis of barriers to entry and (iii) constraints imposed by the undertakings trading partners through their bargaining power (i.e. countervailing buying or selling power).[155] There is at times a conflict between the approach in the case law and in the Guidance Paper when it comes to the terminology and economic argumentation which is employed, where the Paper is more reflective of economic thinking. While this is highlighted in the sections below where it is relevant, the fact is that much of the Court's case law on dominance was formulated in the 1980's and 1990's. In contrast, the Guidance Paper is the result of a review of the Commission's policy as regards Article 102 TFEU and its compatibility with current economic thinking undertaken in the 2000's. There are few cases from the CJEU since the release of the Paper which deals with the issue of dominance, rather these questions are resolved in the General Court while the appeals to the CJEU have concerned the element of abuse.[156] Thus, while the CJEU has at times been ambivalent to the approach set out in the Guidance Paper in that regard,[157] it has not extensively expressed itself on the approach to establishing market power set out in the Guidance Paper.

4.4.1 Market Shares

Market shares are the first indicator consider in deciding whether a firm is dominant. The Court has held that if the undertaking in question has a statutory monopoly, i.e. a monopoly conferred by law and which forbids all competition, then it *per se* has a dominant position under Article 102.[158] Usually, there is no such monopoly however, and the market power is a matter of degree. In *Hoffmann-La Roche* the CJEU stated that very large market shares are highly important when determining dominance, even if it varies from market to market as far as production, demand and supply are concerned. When the Court developed its reasoning it found that very large market shares held over a long time are themselves evidence of a dominant position save but in exceptional circumstances. This is especially so when the concerned undertaking has a large production(i.e. economies of scale) and smaller competitors are unable to quickly meet new demand.[159]

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[154] C-27/76 *United Brands v Commission* EU:C:1978:22.
[155] The Guidance Paper §12.
[156] One of the few exceptions is C-457/10 P *AstraZeneca v Commission* EU:C:2012:770, where the CJEU affirmed the General Court, which in turn had upheld the Commission's definition of the relevant market.
[157] See chapter 5.
[158] C-351/12 *OSA* EU:C:2014:110 § 86.
[159] C-85/76 *Hoffmann-La Roche v Commission* EU:C:1979:36 § 39-41.

Whether large market shares are a strong indication of dominance or not is a case where the Court's approach and that of the Commission seemingly differ. Famously, the CJEU in § 60 of *AKZO*[160] held that:

> […] very large shares are in themselves, and save in exceptional circumstances, evidence of the existence of a dominant position (judgment in Case 85/76 Hoffmann-La Roche v Commission [1979] ECR 461, paragraph 41). That is the situation where there is a market share of 50% such as that found to exist in this case.

AKZO is generally interpreted as constituting a presumption of dominance when the market share is at or over 50 %.[161] In contrast, the Commission in its Guidance Paper considers markets shares a *useful first indication* and that further analysis is always necessary. Large and durable market shares are referred to as "important preliminary indications" of dominance. As the Paper does not mention the 50 % threshold in *AKZO,* it seems likely the Commission has taken notice of the prevalent opinion that this threshold is too low to establish dominance and tried to change it.[162] Notably, *Faull and Nikpay* argue that *AKZO* and *Hoffmann-La Roche* do not represent a presumption but rather an indication among others.[163] While I see the conflict between these perspectives, I think that it should be pointed out that the CJEU does require the Commission to take other factors into account and it is the Commission's practice to do so.[164]

Before we delve into what these factors are, it is appropriate to discuss what is the smallest degree of market share, which can lead to a finding of dominance. The lowest share at which an undertaking has found to be dominant is 39.7 % in *British Airways.* In the case, the CJEU found that the Commission was correct in finding British Airways as dominant as its market share was seven times larger than its closest competitor and that its large operation made it a mandatory trading partner for travel agents.[165] The size of competitors' market shares are thus indicators of the undertaking's dominance. The reason is simple: if a firm with a large market share has a competitor of equal size, economies of scale are attainable by both and they may indulge in intense competition. In contrast, if a large firm faces only small competitors, these may be unable to react sufficiently to changes by the large firm in its price, and thus may be 'price-takers'.[166]

Many commentators, including *Monti* and to some degree *Jones and Sufrin,* argue that there should be a 'safe harbour' for undertakings which have market shares below a certain threshold.[167] The Commission in its Guidance Paper sets out a "*qualified* safe harbour*"*[168] where it states that it is unlikely to find dominance below 40 % but that there might be special

[160] C-62/86 *AKZO v Commission* EU:C:1991:286.
[161] Jones and Sufrin (n 2) p. 323.
[162] See for example Monti 'The Concept of Dominance in Article 82*'* (n 123) p. 149.
[163] Faull and Nikpay (n 40) 4.158-60.
[164] Jones and Sufrin (n 2) p. 323.
[165] T-219/99 *British Airways v Commission* EU:T:2003 §§ 197-225 and Jones and Sufrin (n 2) p. 325-327.
[166] Jones and Sufrin (n 2) p. 323.
[167] Jones and Sufrin (n 2) pp. 327-328 and Monti 'The Concept of Dominance in Article 82*'* (n 123) pp. 49-51.
[168] Jones and Sufrin (n 2) p. 327.

cases. While there may be good arguments for and against a safe, the fact is that in my reading, as well as according to *Whish and Bailey,*[169] the Commission can only create a *qualified* safe harbour because of its limited authority to do so under EU law. Following Article 19(1) TEU, it is the CJEU which interprets EU law. The Commission's authority in setting guidelines for its enforcements comes from the principle of legitimate expectations and does not allow it to interpret EU law. It can only limit its own discretion as is discussed in section 1.3. As stated there, the Commission can diverge from its prior statements if it provides reasons for doing so under the principle of legitimate expectations. Thus, the Commission is not able to provide a definitive safe harbour because it could still diverge from it. A definite safe harbour, i.e. one without exceptions, can only be set by binding law, i.e. either primary law, binding secondary law or *new* case law from the CJEU.

4.4.2 Barriers to Entry

While the economic theory of barriers to entry was considered in chapter 3, this section deals with how such barriers to entry are analysed and considered in competition law under Article 102 TFEU. As will be shown, the Court's approach does not always reflect economic theory, and this is accentuated by the Guidance Paper and the Commission's decisional practice closer alignment to such theory.

Economies of Scale were considered by the CJEU in § 122 of *United Brands* as a barrier preventing the entry of competitors. This as they could not "derive any immediate benefit" from economies of scale in contrast to incumbents who had already made the investment into the fixed costs for production facilities, logistical networks etc. The CJEU also referred to sunk costs in the same paragraph through its discussion of the need for investments, in a commercial network, advertisement etc., to enter the market and which were irrecoverable if the entry failed.[170] That the CJEU considered these issues separately is problematic from the perspective of economic theory. As the OECD Report notes, economies of scale should be considered to deter entry when it is the result of significant sunk costs, as these deter entry by allowing incumbent firms to rationally price below total cost.[171] The Commission approach meets this concern. In cases *BPB Industries, Telefónica* and *Intel,* it found that the existence of costs, simultaneously both sunk and fixed, resulted in significant economics of scale and barred potential competitors from entering the market.[172] The Commission's decisions were either affirmed by the EU Courts on

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[169] Whish and Bailey (n 99) p. 194.

[170] C-27/76 *United Brands v Commission* EU:C:1978:22 § 122.

[171] See section 3.6.

[172] *Intel* (Case COMP/37.990) Commission Decision of 13 May 2009 §§ 859-866; *BPB Industries* (Case COMP/31.900) Commission Decision 89/22/EEC [1988] OJ L 10/50 § 116; *Wanadoo España vs. Telefónica* (Case COMP/38.784) Commission Decision of 4 July 2009 §§ 223-229.

subsequent appeals[173] or, in the case of *Intel* referred back to the General Court by the CJEU on issues unrelated to the establishment of dominance.[174]

Legal barriers in the form of tariffs and quotas are considered as barriers to entry by the Court. As has already been described, a statutory monopoly constitutes a dominant position.[175] Similarly, exclusive concessions and exclusive access to limited resources have also been considered as barriers to entry.[176]

A sub-category of legal barriers is *Intellectual Property Rights.* In *AstraZeneca* the General Court found that intellectual property rights in particular could make an undertaking dominant by enabling it to prevent effective competition on the market. The Court argued that there was no contradiction between the fact that the exercise of intellectual property rights are lawful and that they can contribute to a dominant position, to which the CJEU agreed.[177] Intellectual property rights can constitute both *absolute cost advantages,* through granting the holder exclusive rights to the cheapest method of production, and *first-mover advantages,* through allowing the 'first-mover' access to patents which later entrants cannot access.[178] In addition to *AstraZeneca*, intellectual property rights has been classified as a barrier to trade in *Intel,*[179] *Tetra Pak II*[180] and *Hilti.*[181]

The CJEU has also considered that entry may be hindered when incumbents have superior *access to financial resources.* It did so in both § 122 of *United Brands* and § 48 in *Hoffmann-La Roche.*[182] In light of the controversy of categorising such access as a barrier to trade,[183] it is noteworthy that this factor has, at least to my knowledge, been referred to by the Court and the Commission exclusively in the early cases. That the Guidance Paper does not include privileged access to financial resources as one of the enumerated barriers to entry in the Guidance Paper seems to indicate that at least the Commission no longer considers this as a factor indicatory of dominance.[184]

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[173] C-310/93 P *BPB Industries and British Gypsum v Commission* EU:C:1995:101, T-336/07 *Telefónica and Telefónica de Espana v Commission EU:T:2012:172* and C-295/12 P *Telefónica SA v Commission* EU:C:2014:2062 and T-286/09 *Intel v Commission* EU:T:2014:547.

[174] The case was remanded because Intel's arguments against the alleged abuse were not considered sufficiently see C-413/14 P *Intel v Commission* EU:C:2017:632.

[175] See section 4.4.1.

[176] Jones and Sufrin (n 2) p. 338.

[177] T-321/05 *AstraZeneca v Commission* EU:T:2010:266 §§ 270-275. The CJEU affirmed the reasoning of the General Court in C-457/10 P *AstraZeneca v Commission* EU:C:2012:770 §§ 185-188.

[178] Jones and Sufrin (n 2) p. 339.

[179] *Intel* (Case COMP/37.990) Commission Decision of 13 May 2009 § 856

[180] T-83/91 *Tetra Pak International v Commission* EU:T:XX:XX § 110

[181] *Eurofix-Bauco v Hilti* (1988) Commission Decision 88/138/EEC OJ L 65/19 § 69.

[182] C-27/76 *United Brands v Commission* EU:C:1978:22 and C-85/76 *Hoffmann-La Roche v Commission* EU:C:1979:36.

[183] See section 3.6.1.

[184] See § 17 of the Guidance Paper.

Privileged access to resources or inputs was held by the Commission to constitute a barrier to entry in *BPB Industries*[185] as BPB Industries had privileged access to raw materials in the UK and import costs were high.[186]

In *United Brands, Hoffmann-La Roche* and *Michelin I*, the CJEU considered that the technological advantages of the concerned undertakings contributed to their dominant positions.[187] *Jones and Sufrin* point out that while superior technology can operate as a sunk cost for potential entrants, they may not have to spend the same amount on research and development as they may be able to draw benefit from the advances made by incumbents on the market.[188] In light of this, it is perhaps not surprising that later Commission decisions, as for example *Intel,* has focused on technology advantages operating as barriers to entry when they are either connected with significant sunk costs or intellectual property rights of the incumbent.[189]

The CJEU has also taken the existence of *an established distribution and sales network* into account when dominance is determined in *United Brands, Hoffmann-La Roche* and *Michelin I*. When doing so however, it took the existence of such networks to directly indicate economies of scale in *United Brands*[190] or indirectly through mentioning qualities stemming from economies of scale in *Hoffmann-La Roche* and *Michelin I*: "technical and commercial advantages" in the former and "efficiency and qualities of service" in the latter.[191]

In *United Brands* the CJEU considered that the *vertical integration* of United Brands contributed to its dominant position as the undertaking had an unsurpassed chain of supply, from the plantations across the transport by rail and boat to Europe to the sales to distributors in Europe. The CJEU described how this imparted a benefit on United Brands visa-vi its competitors. This due its the ability to fully utilise its transport fleet at all times and to always have operating production facilities. These benefits are the same as those granted by economies of scale – they allowed United Brands' to maintain low average fixed costs, by spreading them out over many units of outputs (bananas).[192] In light of this, it is appropriate to emphasise that to take vertical integration into account risks exaggerating the actual barrier created by economies of scale and does not necessarily exclude competition from different operators at different stages of the product's manufacturing and sale.[193]

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[185] *BPB Industries* (Case COMP/31.900) Commission Decision 89/22/EEC [1988] OJ L 10/50.
[186] Ibid. § 120.
[187] C-27/76 *United Brands v Commission* EU:C:1978:22 §§ 82-84 and C-85/76 *Hoffmann-La Roche v Commission* EU:C:1979:36 § 48 and C-322/81 Michelin v Commission EU:C:1983:313 *§ 55.*
[188] Jones and Sufrin (n 2) p. 340.
[189] *Intel* (Case COMP/37.990) Commission Decision of 13 May 2009 §§ 855-866.
[190] C-27/76 *United Brands v Commission* EU:C:1978:22 § 95.
[191] C-85/76 *Hoffmann-La Roche v Commission* EU:C:1979:36 § 48 and C-322/81 Michelin v Commission EU:C:1983:313 § 58.
[192] C-27/76 *United Brands v Commission* EU:C:1978:22 §§ 70-81 and 85-90.
[193] Jones and Sufrin (n 2) p. 340.

Advertising has been taken to constitute a barrier to entry in *United Brands* by the CJEU and *Intel* by the Commission. As discussed in section 3.6, advertising potentially constituting either (i) a structural barrier to entry, (i.e. a feature of the market itself) when it is necessary to sell the product, or (ii) a strategic barrier to entry (i.e. created by the behaviour of the incumbents) when its excessiveness raises the cost of entry. Against this background it is interesting to note that in both of these cases the advertising was very extensive and rendered both these products a must-stock and the concerned undertaking an *unavoidable trading partner.* In *Intel* especially, *product differentiation* occurred where Intel's products were viewed as different and more reliable due to their brand. The Commission specifically denoted the marketing investment required to create such brand value as a sunk cost.[194] Thus, while EU law does not necessarily take a stand on whether advertising is excessive, its pervasiveness is still taken into account as a barrier to entry when it translates into sunk costs. Notable is also the fact that the Commission in for example *Intel* is very clear on how the product differentiation translated into increased sunk costs and thus prevented entry.

Other forms of strategic barriers to entry are also considered by EU law. Behaviour substituting either *predatory* and/or *limit pricing* had been used by the incumbent undertaking in both *United Brands* and *Hoffmann-La Roche* to exclude earlier competition, with the undertaking reverting to the original price levels at least in the latter case once the worrisome competitor had exited the market.[195]

When it comes to *excessive spare capacity and investment in sunk costs,* the CJEU acknowledged the duality of the issue in *Hoffmann-La Roche* when it discussed the fact that the large amount of spare capacity among all incumbents on the market made potential competition from expanding incumbents likely while simultaneously excluding new entrants. In the end, the fact that Hoffmann-La Roche itself could supply the whole world market contributed to its dominant position.[196]

While I can find no example of explicit *patent hoarding* in the Court's case law, AstraZeneca's patents allowed it to "dictate to a large extent market-entry terms" to its competitors.[197]

In *British Midland-Aer Lingus*[198]*,* the Commission considered that the *opportunity costs* incurred by entering the market constituted a barrier to entry. This cost arose through the use of the limited number of slots available at Heathrow airport.[199] This does not make much sense from an economic perspective – the slot at Heathrow can be categorised as a resource input or capital. That these were scarce, as economic resources are, does not distinguish them from other forms of capital. The fact that there

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[194] C-27/76 *United Brands v Commission* EU:C:1978:22 §§ 91-93 and *Intel* (Case COMP/37.990) Commission Decision of 13 May 2009 §§ 868-874.
[195] C-27/76 *United Brands v Commission* EU:C:1978:22 §§ 114-119 and C-85/76 *Hoffmann-La Roche v Commission* EU:C:1979:36 § 56.
[196] C-85/76 *Hoffmann-La Roche v Commission* EU:C:1979:36 § 48.
[197] T-321/05 *AstraZeneca v Commission* EU:T:2010:266 §§ 271.
[198] *British Midland-Aer Lingus* (Case IV/33.544) Commission Decision 92/213/EEC (1992) OJ L96/34.
[199] Ibid. § 19.

were significant opportunity costs to enter the relevant market indicates that the potential profits in the market were too low to cover capital costs in the first place.

Switching costs were considered in the *Microsoft* decision as a barrier to entry as there were significant costs if buyers of Microsoft's products wanted to change supplier.[200] Similarly, the Microsoft's operating system created network effects through their interaction with other software programs. As more programs were created for the system, the value and usage of the system increased, leading to even more programs. Thus a positive network effect was created which gave Microsoft a first-mover advantage.[201]

4.4.3 Countervailing Buyer Power

After barriers to entry have been assessed, the actual and potential competition which may constrain an undertaking have been taken into account. Remaining is then to assess whether an undertaking is constrained by its customers through their bargaining power. In § 18 of the Guidance Paper the Commission details when countervailing buying power may arise:

> Competitive constraints may be exerted not only by actual or potential competitors but also by customers. Even an undertaking with a high market share may not be able to act to an appreciable extent independently of customers with sufficient bargaining strength (13). Such countervailing buying power may result from the customers' size or their commercial significance for the dominant undertaking, and their ability to switch quickly to competing suppliers, to promote new entry or to vertically integrate, and to credibly threaten to do so. If countervailing power is of a sufficient magnitude, it may deter or defeat an attempt by the undertaking to profitably increase prices. Buyer power may not, however, be considered a sufficiently effective constraint if it only ensures that a particular or limited segment of customers is shielded from the market power of the dominant undertaking.

Countervailing buyer power thus arises when customers are able to protect the market through restraining the conduct of the examined undertaking. In *Irish Sugar* the GC affirmed the Commission's decision that the presence of economically strong customers does not indicate countervailing buyer power unless they also shield the market. In light of this, the requirements of EU law for countervailing buyer power can be considered to constitute those espoused by the Guidance Paper, and as such are rarely fulfilled.[202]

4.4.4 Other Indications

When determining dominance, other indications than the market share on of the undertaking and barriers to entry may also be taken into account. These indicators consist of the undertaking's view of its own position and direct measurements of market power. Importantly, previous findings of

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[200] *Microsoft* (Case COMP37.392) Commission Decision of 24 May 2004§ 453.
[201] Ibid. see inter alia §§ 448, 525.
[202] There are very few cases were countervailing buyer power has actually been established. See Jones and Sufrin (n 2) p. 340

dominance do not *per se* render the same undertaking dominant in a subsequent case.

The undertaking's assessment of its market position can be taken into account. For example, in the CJEU's decision in *AKZO,* the Court noted that AKZO regarded itself as "world leader in the peroxides market" and admitted its superiority over its competitors.[203] The Commission has also taken such information into account in for example *BBI/Boosey and Hawkes*[204] and *Prokent/Tomra.*[205] As pointed out by senior commentators, self-assessments are not conclusive proof, as managers of companies have incentives to exaggerate the market position of their own companies, be it to an audience of shareholders or themselves.[206]

Profits are not necessarily reliable indicators for market power since the revenue generated by supracompetitive prices may be lost to cost arising from productive inefficiency created by monopolies and other centralisations of market power.[207] Following this, it should be no surprise that the CJEU held that a lack of profits does not indicate a lack of a dominant position in inter alia *United Brands* and *Michelin I.*[208] However, large profits may be taken into account when determining dominance, as the Commission for example did in *Microsoft.*[209] *Price levels* above the competitive level, or at least prices higher than those of competitors, were considered in for example *United Brands.*[210] Noteworthy is that this price difference was deemed a consequence of product differentiation and advertising by United Brands.[211]

Finally, earlier findings of dominance do not automatically render the undertaking dominant in subsequent cases with new investigations. In *Coca Cola*[212] the General Court held that a finding of dominance "is the outcome of an analysis of the structure of the market and of competition prevailing at the time the Commission adopts each decision."[213] Thus, in a new decision concerning the undertaking and Article 102 TFEU "the Commission must define the relevant market again and make a fresh analysis of the conditions of competition which will not necessarily be based on the same considerations as those underlying the previous finding of a dominant position."[214]

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[203] C-62/86 *AKZO v Commission* EU:C:1991:286 § 61.
[204] *BBI/Boosey and Hawkes* (Case IV/32.279) Commission Decision 87/500/EEC OJ (1988) L 286/36 § 18.
[205] COMP/38.113, *Prokent/Tomra* Commission decision of 29 March 2006 § 91.
[206] Jones and Sufrin (n 2) p. 329 and Whish and Bailey (n 99) p. 197.
[207] See section 3.2.
[208] C-27/76 *United Brands v Commission* EU:C:1978:22 *§§ 126-128,* C-322/81 Michelin v Commission EU:C:1983:313 § *59.*
[209] Microsoft § 464.
[210] C-27/76 *United Brands v Commission* EU:C:1978: §§ 91. Product Differentiation may make it more difficult to determine what prices are competitive. The prices in *United Brands* seems to have been higher because of the consumers' favourable perception of the company's branded products.
[211] Ibid.
[212] T-125/97 *Coca-Cola v Commission* EU:T:2000:84
[213] Ibid § 91.
[214] Ibid § 92.

4.5 Conclusion

The definition of dominance in EU law is a complicated exercise. The CJEU seems to connect dominance to both independence from competition and the ability to prevent competition through exclusionary ability. By and large it reflects the economic concept of substantial market power, as described in chapter 3 and the Commission in the Guidance Paper. Moreover, although some commentators argue that the power to exclude should not be included in the definition, the fact that the analysis of barriers to entry takes strategic barriers to entry into account and that substantial market power is often required for such power in the first place, renders this view dismissible.

However, it should still be pointed out that the CJEU's case law and the Commission's Guidance Paper and decisional practice differ in their adoption of economic theory. The CJEU stands by the controversial AKZO presumption while the Commission seems to seek to qualify it. Moreover, there is also a, albeit smaller, difference in the institutions treatment of barriers to entry, where the Commission to a greater degree seems to connect controversial barriers to entry to sunk costs than the CJEU.

5 A Framework for Evaluation

5.1 Introduction

This thesis has outlined in chapter 2 and 3 what the economic arguments are for why and when there is reason for competition law to be concerned with the accumulation of market power in individual undertakings (dominance). chapter 4 details and analyses how dominance is established under EU competition law. This chapter aims to establish a framework for evaluating the approach(es) taken to dominance in EU law. Firstly, the goals of European competition law are investigated. A special focus is placed on the potential conflict between (i) the adoption of consumer welfare as the sole goal of competition law or (ii) the maintenance of law continuing to serve plurality of ends, but most importantly protecting competition as such or as a proxy. Because the Commission and the CJEU has taken diverging positions in this debate this discussion is based on their potential reasons for doing so. Finally, error cost analysis is introduced as the tool which will be used to the evaluate the current EU competition law in the next chapter.

5.2 Goals of EU Competition Law

A natural starting point for an endeavour to determine the goals of EU competition law, and more specifically the application of Article 102, are the Treaties and their interpretation in the case law.[215] The CJEU in § 23 in *Continental Can* stated the aim of the Union's competition policy as follows:[216]

> Article [102 TFEU] is part of the chapter devoted to the common rules on the Community's policy in the field of competition. This policy is based on Article 3 (f) of the Treaty[217] according to which the Community's activity shall include the institution of a system ensuring that competition in the Common Market is not distorted. The applicants' argument that this provision merely contains a general programme devoid of legal effect, ignores the fact that Article 3 considers the pursuit of the objectives which it lays down to be indispensable for the achievement of the Community's tasks. As regards in particular the aim mentioned in (f), the Treaty in several provisions contains more detailed regulations for the interpretation of which this aim is decisive.

[215] The TEU, The TFEU, The Charter of Fundamental Rights of the European Union OJ C 326/391 and their assorted protocols.

[216] Monti makes the point that the Court erred in stating undistorted competition as an aim since Article 3 describes activities of the Community even if he argues that this difference is seminal. See Giorgi Monti 'EU Competition from Rome to Lisbon – Social Market Economy' in Heide-Jorgensen C., Bergqvist C., Neergaard U. and Troels Poulsen S. (eds), *Aims and Values in Competition Law* (DJØF Publishing 2013).

[217] The Court refers here to the Treaty of Rome which established the European Economic Community, an earlier predecessor to the Treaties.

The rule in Article 3 (f) has now been split into 3(3) TEU and Protocol No 27 on the Internal Market and Competition.[218] Article 3(3) TEU states that:

> The Union shall establish an internal market. It shall work for the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment. It shall promote scientific and technological advance.

Protocol No 27 reaffirms "the internal market as set out in Article 3 of the Treaty on the European Union includes a system ensuring that competition is not distorted". This provision was apparently moved due to pressure from the French President during the Lisbon treaty negotiations, who (prematurely) celebrated it as a step to changing the jurisprudence of the Union.[219] These hopes were thwarted, when the CJEU stated in §§ 20-23 of *Telia Sonera*[220] that:

> […] Article 3(3) TEU states that the European Union is to establish an internal market, which, in accordance with Protocol No 27 on the internal market and competition, annexed to the Treaty of Lisbon (OJ 2010 C 83, p. 309), is to include a system ensuring that competition is not distorted.
>
> Article 102 TFEU is one of the competition rules referred to in Article 3(1)(b) TFEU which are necessary for the functioning of that internal market.
>
> The function of those rules is precisely to prevent competition from being distorted to the detriment of the public interest, individual undertakings and consumers, thereby ensuring the well-being of the European Union […]

That building a system which ensures that competition is not distorted is thus the main objective of EU competition law. According to the CJEU in *Continental Can,* Article 102 TFEU is a part of this system, as it maintains effective competition within the internal market by limiting the abusive unilateral activity by undertakings. What this actually means is the subject of interpretation however.

Whether the preservation of competition in the application of the law is a means to an end or an end itself has given rise to considerable controversy and specifically so regarding the application of Article 102. While agreement persists in that competition is instrumental in preserving the functioning of the internal market[221] the divide which is subject of this chapter is the one between the Commission's embrace of maximisation of consumer welfare as an exclusive goal of competition law and the CJEU's restrictive approach to this. The CJEU instead maintains that competition law serves a broader reach of goals, protecting competitors, consumers and the structure of the market, i.e. competition itself. In section 5.2.1 the

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[218] OJ C 115/309. The protocols are also considered primary law. See Hettne (n 5) p. 41.
[219] Editorial, 'Competition has served Europe well; Mr Sarkozy has not' *Financial Times* (London, 25 June 2007) <https://www.ft.com/content/85a2d268-2346-11dc-9e7e-000b5df10621> accessed 30 July 2018.
[220] C-52/09 *TeliaSonera Sverige* EU:C:2011:83.
[221] Jones and Sufrin (n 2) p. 34.

Commission's embrace of Consumer Welfare will be described. In section 5.2.2 the Court's embrace of competition will be conceptualized in the three ways which I have found it presented in the literature.

5.2.1 Consumer Welfare

The more economic approach, or modernisation, of competition law began with the Commission during the 1990s. It was an attempt by the Commission to bring competition law in line with economic theory on efficiency, as discussed in chapters 2 and 3. The Commission adopted an 'effects' approach, which aimed to classify behaviour as pro- or anticompetitive on the basis of its effect on Consumer Welfare. *Jones and Sufrin* provide examples of how consecutive Competition Commissioners Monti, Kroes and Almunia all emphasise that consumer welfare is the goal of EU competition law.[222] Likewise, the current Commissioner for Competition, Margrethe Vestager has claimed that the objective of competition policy is to "make our markets work more fairly for consumers."[223]

The Commission has also emphasised consumer welfare as the goal of competition law in its soft law instruments. In § 78 of the Commission's Guidelines on the assessment of horizontal mergers it is stated that "the relevant benchmark for assessing efficiency claims is that consumers will not be worse of as a result of the merger."[224] That consumer welfare is the goal of competition law is also iterated in numerous other Commission instruments.[225] Of extra importance for the application of Article 102 is of course the Guidance paper. In § 5 of the Guidance Paper, the Commission states its focus on advancing a wide concept of consumer welfare:

> In applying Article 82 to exclusionary conduct by dominant undertakings, the Commission will focus on those types of conduct that are most harmful to consumers. Consumers benefit from competition through lower prices, better quality and a wider choice of new or improved goods and services. The Commission, therefore, will direct its enforcement to ensuring that markets function properly and that consumers benefit from the efficiency and productivity which result from effective competition between undertakings.

In § 6, the Commission emphasizes that efficient competition is protected for the sake of consumers, and not competitors for their own sake. In § 19, the priorities of the Commission when deciding on enforcement is discussed, with a focus on foreclosure which leads to consumer harm.

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[222] Jones and Sufrin (n 2) p. 34.

[223] Margrethe Vestager, "Fairness and Competition", GCLC Annual Conference, Brussels, 25 January 2018, <https://ec.europa.eu/commission/commissioners/2014-2019/vestager/announcements/fairness-and-competition_en> accessed 25 July 2018.

[224] Guidelines on the assessment of horizontal mergers (2004) OJ C31/03 § 79. See also § 8.

[225] See for example Guidelines on the assessment of non-horizontal mergers (2008) OJ C265/7 § 10 and Guidelines on vertical restraints (2010) OJ C130/1 § 7. Note that it is essentially the same paragraph in both instruments.

It can thus be concluded, that the Commission has embraced consumer welfare as the one goal of competition law. *Nazzini* argues, convincingly in my opinion, that the Commission has embraced the goal of consumer welfare because it is easier to apply than other welfare standards and it is a politically acceptable way to both argue for an economic approach to competition law as well as less intervention.[226] However, as is shown in the next section, the CJEU has not shared the Commission's enthusiasm.

5.2.2 Competition as a Goal in Itself

Simply that the CJEU has not joined the Commission in proclaiming consumer welfare as the sole goal of competition law does not mean that it does not see it as at least one of its goals. Since *Continental Can,* the Court has held that Article 102 is "not only practices which may cause damage to consumers directly, but also at those which are detrimental to them through their impact on an effective competition structure".[227]

However, the Court has held that competition law and Article 102 TFEU does not only protect consumer welfare. To the contrary, it has often rejected or been non-receptive to the new economic approach of the Commission.[228] The CJEU considers that competition law in addition to consumer welfare protects the public interest, other individual undertakings (competitors or trading partners of the dominant undertaking) and the structure of the market, i.e. competition as such.[229]

From investigating the Court's case law and the doctrine, two ways of conceptualising what the Court means when stating that competition is protected appears. These are either that it is (i) protecting the competitive process, which consists of the exercise of economic freedom, i.e. consumer choice and competitors' ability to compete on the merits or that it is (ii) preserving fairness and protect especially small competitors from dominant firms. These may be two sides of the same coin, or even the same concept, as they share roots in Ordoliberalism. The first is usually protected by adherents of Ordoliberalism who support the goal of protecting competition.[230] The second is usually ascribed to the CJEU by proponents

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[226] Renato Nazzini, *The Foundations of European Union Competition Law: The Objectives and Principles of Article 102* (OUP, 2011) pp. 44-45 as it is cited in Jones and Sufrin (n 2) p. 27.

[227] C-6/72 *Europemballage Corporation and Continental Can Company v Commission* ECLI:EU:C:1973:22 § 26. This is established case law, see C-52/09 *TeliaSonera § 24* and C-209/10 *Post Danmark I* EU:C:2012:172 § 20.

[228] Jones and Sufrin (n 2) p. 278f.

[229] See *inter alia* C-52/09 *TeliaSonera § 24* and C-501/06 P *GlaxoSmithKline Services* § 63. Important to note is that where the CJEU held that competition is protected as a value itself is *GlaxoSmithKline Services*[229] which was a case dealing with Article 101 TFEU. However, the case was a astounding rejection of the GC's acceptance of the Commission's embrace of consumer welfare as the sole goal of competition law. This in conjunction with the focus of competition serving the long-term interests of consumers in the application of Article 102 TFEU indicates that Competition as such is protected also in the application of Article 102 TFEU.

[230] See Peter Behrens 'The 'Consumer Choice' Paradigm in German Ordoliberalism and its Impact Upon EU Competition Law' (2014). Europa-Kolleg Hamburg Discussion Paper

for the adoption of the consumer welfare goal for competition Law and who argue for an economic approach.[231] A notable exemption to this divide is *Lovdahl Gormsen* who argues for the adoption of consumer welfare on policy grounds but disputes the legal legitimacy of it in light of how it has been introduced (i.e. by soft law instruments). She argues that this is not sufficient to redirect the purpose of competition law from the constitutional value of economic freedom.[232]

Before discussing these two alternatives, an introduction to Ordoliberalism is in order. Ordoliberalism originated with the Freiburg school in Germany in the 1940s as a reaction to the concentrated market power in the Weimar Republic and the Nazi regime, and is a form of liberalism.[233] The thinking of Ordoliberalism has developed during the 20th century but *Behrens* provides a useful summary of its key tenets:

- Competition results from individual freedom of producers to choose what they want to offer and of consumers to choose what they want to buy.
- Competition is understood as a dynamic system (process) of interaction between choice-making individuals who by making their choices reveal their preferences and produce the kind of information that other individuals need to make their choices.
- It is the fundamental role of the system of private law to provide individuals with legal rights the unrestricted use of which forms the basis of competitive rivalry among producers and of consumers' freedom of choice among alternative sources of supply.
- It is the task of the state to provide laws against restraints of such competitive rivalry and to enforce them as rules of the game with which market participants have to comply.[234]

Behrens argues that the CJEU has adopted this understanding of competition when it argues for the protection of it as such. In relating this to the CJEU's case law cited above[235] the protection of competitors represents the Ordoliberal goal of ensuring the individual freedom of producers to engage in competitive rivalry, the protection of consumers through the protection of their ability to choose what goods to consume and the protection of the competitive market structure for the sake of consumers intends the protection of the *dynamic process* of competition. *Behrens* cites, inter alia, *TeliaSonera* where the Court referred to abusive conduct as conduct which limits "the buyer's freedom to choose his sources of supply, to bar competitors from access to the market, to apply dissimilar conditions to equivalent transactions with other trading parties, or to strengthen the

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1/14. <https://ssrn.com/abstract=2568304> accessed 27 July 2018 p. 26.; Behrens "The Ordoliberal Concept of 'Abuse' of a Dominant Position and its Impact on Article 102 TFEU" (n 26) and Oles Andriychuk, "Rediscovering the Spirit of Competition: On the Normative Value of the Competitive Process" (2010) 6 European Competition Journal 575

[231] See for example Pinar Akman, *The concept of abuse in EU competition law: law and economic approaches* (Hart 2012) p. 153.

[232] Liza Lovdahl Gormsen, *A principled approach to abuse of dominance in European competition law* (CUP 2010).

[233] Jones and Sufrin (n 2) p. 34

[234] Behrens "The Ordoliberal Concept of 'Abuse' of a Dominant Position and its Impact on Article 102 TFEU" (n 26) p. 12

[235] See the beginning of this section.

dominant position by distorting competition."[236] Moreover, he argues that in comparison with the consumer welfare standard, preserving consumer choice through the proxy of the competitive process has the advantage of being easier to measure. While the Commission's definition of consumer welfare is broad, it is also difficult to accurately measure. The consumer choice by proxy standard thus benefits of an advantage which free market economies in general share: The determination of the value of a certain good is outsourced to the consumers, and not measured by a regulatory entity, be it the state planning the economy or a competition authority regulating conduct.[237]

The criticism as regards the second concept is that CJEU actually protects inefficient competitors and not competition.[238] That this is a very real concern is demonstrated by the fact that competition or anticompetitive conduct is at times associated with greater efficiency. Both of these can result in economies of scale. For example, exclusivity contracts between a monopoly and its trading partners may make the company able to rely on that large investments in sunk costs that will yield benefits through economies of scale in the long-term.[239] Moreover, as we have seen, the behaviour of a monopoly may be constrained sufficiently by the risk of potential competition.[240]

To counter this line of argumentation, *Behrens* argues that this is not a risk because the case law of the CJEU only aims to prohibit illegitimate competitive methods. For example, the CJEU stated in the first *Post Danmark*[241] case that: "It is in no way the purpose of [Article 102 TFEU] to prevent an undertaking from acquiring, on its own merits, the dominant position on a market (see, inter alia, TeliaSonera Sverige, paragraph 24). Nor does that provision seek to ensure that competitors less efficient than the undertaking with the dominant position should remain on the market."[242] The Court thus at least nominally does not seek to protect competitors but competition. Even so, as has been argued above, this is a difficult exercise, which is prone to error.[243]

A perhaps better argument is that the determination of what is efficient, and the encouragement of that behaviour, depends on the exercise of consumer choice. As such choice is limited without actual competition, how the efficiency achieved under monopoly translates to consumer welfare cannot be reliably measured.[244]

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[236] C-52/09 *TeliaSonera Sverige* EU:C:2011:83 § 28. See also Behrens 'The 'Consumer Choice' Paradigm in German Ordoliberalism and its Impact Upon EU Competition Law' (n 231) p. 26.

[237] Behrens 'The 'Consumer Choice' Paradigm in German Ordoliberalism and its Impact Upon EU Competition Law' (n 230) p. 27 ff.

[238] Whish and Bailey (n 99) p. 22

[239] See Chapter 2 and 3.

[240] This is why a barrier to entry analysis is necessary.

[241] C-209/10 *Post Danmark* EU:C:2012:172

[242] Ibid. § 21.

[243] Perhaps ironically for those of Behrens' view, this process seems more prone to error if an effects-based approach is not adopted.

[244] Consumer welfare in a wide sense that is, for example the standard adopted by the Commission. See Behrens 'The 'Consumer Choice' Paradigm in German Ordoliberalism and its Impact Upon EU Competition Law' (n 230) p. 27 ff.

An alternative narrative to *Behrens* and *Lovdahl Gormsen* is that the CJEU is not necessarily motivated by Ordoliberal ideals, even though such may have inspired its early case law. Instead its reluctance to embrace the consumer welfare standard stems from other reasons. I find two such reasons. While they are not as ideological as the Ordoliberal narrative, their reasoning may overlap with it.

The first reason is that the CJEU is doubting the wisdom of clearly placing consumer welfare as the penultimate goal of competition law instead of achieving it via the proxy of competition. *Haw Allensworth* argues that Courts may adopt a delaying approach when dealing with new scientific findings and not necessarily adapt their case law immediately, but change it later. In doing so, they aim to not foreclose the possibility of a scientific consensus emerging later.[245] *Ibanez Colomo* suggest that the CJEU is actually adopting a substantive economic approach instead of an effects-based one. What this means is that the Court is trying to articulate clear rules in the form of presumptions or proxy goals, which incorporates economic thinking into the law.[246] It is interesting to note that for example *Crane* points out that the US Supreme Court have adopted such an approach when dealing with antitrust.[247] The benefits of such an approach is that the cost of the enforcement system itself can be minimized and the potential risk of measurement problems associated with an effects-based approach, similar to the ones that *Behrens* presents, can be avoided. As such facts would be on the Commission to prove, the risk of undertakings "getting away" may increase with an effects-based approach.

The second reason is that the Court is trying to protect its institutional role through judgments such as *GlaxoSmithKline* or *TeliaSonera*. As can be seen in chapter 4, the Commission through its Guidance Paper is *selective* in its interpretation of the case law, for example concerning the role of market shares in its hesitation toward the AKZO-presumption of 50 % or on the role of capital costs. The Court may very well view that its exclusive institutional role, to interpret and ensure the correct application of EU law according to Article 19 TEU, is being, for lack of a better word, subverted by the Commission's adoption of consumer welfare as the ultimate goal. After all, since *Continental Can*, the Court has ruled that consumer welfare is not protected only directly but also indirectly through the competitive structure.

The problem if this contention is the reason for the divergence between the case law and the Commission's approach is, without assigning

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[245] Allensworth, Rebecca Haw, Delay and Its Benefits for Judicial Rulemaking Under Scientific Uncertainty (August 16, 2013). Boston College Law Review, Vol. 55, 2014, Forthcoming; Vanderbilt Law and Economics Research Paper No. 13-31; Vanderbilt Public Law Research Paper No. 13-44. Available at SSRN: https://ssrn.com/abstract=2341075 or http://dx.doi.org/10.2139/ssrn.2341075.

[246] Paolo Ibanez Colomo, *Discretionalists vs Legalists: the true divide in the competition law community? (Chilling Competition,* 28 May 2018) <https://chillingcompetition.com/2018/05/28/discretionalists-vs-legalists-the-true-divide-in-the-competition-law-community/> accessed 29 July 2018.

[247] Daniel A. Crane, "The economics of antitrust enforcement" in Keith N. Hylton (ed), *Antitrust Law & Economics*, Vol.4, Encyclopedia of Law & Economics, 2nd edn, Edward Elgar, 2010 pp. 4-5.

the blame to a particular institution, that the those who pay the price are the individual undertakings. Instead of relying on legal certainty ensured by legislation or case law, they have to rely on the Commission adhering to its own Guidance Paper. Moreover, such adherence will not necessarily be enforced by the CJEU which stated in the second *Post Danmark* case[248] that the Guidance Paper "merely sets out the Commission's approach as to the choice of cases that it intends to pursue as a matter of priority; accordingly, the administrative practice followed by the Commission is not binding on national competition authorities and courts."[249]

In conclusion, the CJEU has been reluctant to embrace the consumer welfare standard as the sole goal for competition law, and while this is problematic as it is potentially the result of an institutional struggle, there are also good arguments for why the CJEU has chosen to keep protecting competition as such as another goal for Article 102 TFEU.

5.3 Error Cost Analysis

In evaluating the accuracy and effectiveness of competition law, I will employ error cost analysis. This is in essence a cost-benefit analysis of the application of law although the focus in such research lies, as the definition suggest, on the cost of errors. *Easterbrook* argues that competition law focuses on minimising three types of costs: the cost of condemned procompetitive behaviour (false positives or type I errors), the cost of anticompetitive behaviour not prohibited (false negatives or type II errors) and the cost of the enforcement system itself.[250]

While evaluating an enforcement system, errors can arise on three levels: (i) when rules are constructed, (ii) during the enforcement of said rules due to the exercise of prosecutorial discretion and (iii) during the fact-finding phase of enforcement.[251] The analysis in this thesis will exclusively deal with the stage where rules are constructed as that is within the ambit of this thesis. Investigating the second or third levels would require assembling data which is not possible to do given the time and space constraints of this project.

The existence and degree of error may differ under different approaches. *Easterbrook* for example applies error cost analysis using efficiency, that is total welfare, as the stated goal.[252] This efficiency-based approach is the one traditionally taken, but error cost analysis can of course be employed using the consumer welfare benchmark as well.[253] However, I believe that the error cost framework is useful in analysing how the

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[248] C-23/14 *Post Danmark II* EU:C:2015:651.

[249] Ibid. § 52.

[250] Frank H Easterbrook, "Limits of Antitrust" (1984) 63 Texas Law Review 1, 16.

[251] Crane (n 247) pp. 4-5. Note that Crane only refers to the first and the third stage, and does not mention the second. For a discussion of the second stage, see Alan Devlin and Michael Jacobs, "Antitrust Error" (2010) 52 William & Mary Law Review 75.

[252] Easterbrook (n 250) p. 4.

[253] See for example Jones and Sufrin (n 2) p. 282 and David S. Evans and Jorge Padilla 'Excessive Prices: Using Economics to Define Administrable Legal Rules' (2004). CEPR Discussion Paper No. 4626 <https://ssrn.com/abstract=620402> accessed 1 August 2018.

investigated rules attain other goals as well, such as competition, in the way stated by the CJEU. While such a goal may not be as quantifiable as welfare, error cost analysis can still indicate whether the rule is suitable or not.

When rule-making is conducted through case law or decisional practice, the cost of errors can be divided into two parts: firstly, the cost of the error in the individual case and secondly, the cost of the error when the rule from that case is applied by other actors. For example, if a behaviour which is actually procompetitive and efficient is prohibited through a case, the loss incurred by society is not only the efficiency loss due to that particular case, but also the loss of efficiency incurred by the adoption of similar conduct by other undertakings when they also stop the efficient behaviour.

Traditionally, false positives have been viewed as costlier than false negatives. *Easterbrook* argues that it is so because false positives are unlikely to be changed except by legislative or judicial decision making. Thus efficiency losses from prohibiting procompetitive behaviour are more or less permanent. On the other hand, the allowance of anticompetitive behaviour through false negatives can not only be stopped through rule-changes but also constrained by the competition from other undertakings.[254] *Crane* agrees, but also contends that the tilt away from false negatives may be induced by the pendulum swing of antitrust, where historical over-enforcement led to reactions which now influence competition law.[255] Examples of such reaction are the Chicago School in the US[256] and, closer to home, the more economic approach adopted by the European Commission.

Some authors argue that the pendulum swing must be neutralised. For example, *Devlin and Jacobs*[257] argue that false positives are not necessarily more negative for society and that both must be considered. They point out that the efficiency lost by a false positive is relative. The loss in efficiency only equals the difference in efficiency between the best conduct (the forbidden one) and the second-best alternative.[258] This is not necessarily a huge amount. Moreover, they point to the fact that rules in antitrust are likely to change over time (see for example the Commission's efforts at embracing an effects-based approach). Finally, they also argue that the competition inherent on markets may not be sufficient to deter the behaviour allowed by false negatives, giving markets dominated by networks effects as a contemporary example.[259]

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[254] Easterbrook (n 250) pp. 15-16.

[255] Daniel A. Crane, "The economics of antitrust enforcement" in Keith N. Hylton (ed), *Antitrust Law & Economics*, Vol.4, Encyclopedia of Law & Economics, (2nd edn, Edward Elgar 2010) pp 4-5. Crane also refers to the impact of the juror system, but since this is particular to the US context it is not discussed here.

[256] See Jones and Sufrin (n 2) p. 13f.

[257] Devlin and Jacobs (n 251).

[258] For example, if the best conduct yields society 10 units of efficiency, and the second-best conduct yields 9, the loss in efficiency through the prohibition is 1 unit of efficiency.

[259] Devlin and Jacobs (n 251) pp. 97-100. In the conclusion of their paper, Devlin and Jacobs also argue that the risk of type II-errors is also mitigated by the (more) holistic view of public enforcement authorities through the use of prosecutorial discretion than private

5.3.1 The Error Costs of Dominance and the Prohibition of Abuse

There are some particularities of the concept of dominance that must be kept in mind when applying error cost analysis, specifically the relation between dominance and abuse must be clarified. Traditionally, error cost analysis is applied to the prohibition or allowance of a certain conduct, which is then determined to be either accurate or inaccurate.[260] Dominance on the other hand is the ability of an undertaking to exercise substantial market power, and not the act of exercising it. As such, error cost analysis can still be used to measure the effectiveness and accuracy of the law when it determines dominance. However, while the peculiarities of dominance does not change how the method evaluates the risk of errors, it does have implications for the cost of false positives and false negatives. Being found dominant is not itself prohibited, instead it means that the concerned undertaking "has a special responsibility not to allow its conduct to impair genuine undistorted competition on the common market" according to the CJEU in *Michelin I.*[261] This special responsibility is the prohibition on the dominant undertaking to *abuse* its dominant position.[262] Article 102.2 TFEU gives examples of abuse:

> 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 of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts.

What abuse is and how it is determined is a complicated subject. Sufficient for the scope of this thesis is the conclusion that there are two main categories of abuse in the form of exploitative and exclusionary

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enforcement where the goal is usually to (re-)attain wealth. Thus they argue that rules can justifiably impose less strict standards for ruling in favour of claims coming from the former type of enforcement than the latter. This has implications for the application of EU competition law in light of the recent encouragement of private enforcement and could be an interesting avenue for further studies (see for example the introduction of the Damages directive, Directive 2014/104/EU of the European Parliament and of the Council of 26 November 2014 on certain rules governing actions for damages under national law for infringements of the competition law provisions of the Member States and of the European Union (2014) OJ L 354.

[260] See for example Jones and Sufrin (n 2) p. 282 and Evans and Padilla (n 254).

[261] C-322/81 Michelin v Commission EU:C:1983:313 § 55. This is settled case law, see C-52/09 *TeliaSonera Sverige* EU:C:2011:83 § 24 and the references therein.

[262] Article 102 TFEU.

conduct. Exploitative abuse occurs when a dominant undertaking uses its market power to take advantage of its trading partners.[263] The CJEU in § 91 of *Hoffmann-La Roche*[264] defined exclusionary abuse as:

> […] an objective concept relating to the behaviour of the undertaking in a dominant position which is such as to influence the structure of a market where, as a result of the very presence of the undertaking in question, the degree of competition is weakened and which, through recourse to methods different from those which condition normal competition in products or services on the basis of the transactions of commercial operators, has the effect of hindering the maintenance of the degree of competition still existing in the market or the growth of that competition.

The definition prohibits conduct, which does not constitute legitimate competition and has the effect of hindering existing competition or preventing potential competition. In the context of Article 102 TFEU, errors may thus not only arise in the determination of dominance, but also in this distinction between legitimate competition and abuse errors of false positives and false negatives arise.[265] When it comes to analysing the accuracy of the determination of dominance, this does not necessitate taking the risk of errors in the abuse stage into account. The thesis does not do this, and instead exclusively evaluates the accuracy of the dominance determination. However, as will be seen in the next chapter, a belief in the workability of the abuse criterion may still normatively justify an over-expansive definition of dominance.

[263] See Jones and Sufrin (n 2) p. 350f.

[264] C-85/76 *Hoffmann-La Roche v Commission* EU:C:1979:36. The definition is settled case law, see for example C-52/09 *TeliaSonera Sverige* EU:C:2011:83 § 27 and the references therein.

[265] The discussion in section 5.3 showed that of these errors, false positives are considered as more damaging.

6 Analysis of Dominance in EU Law

6.1 Introduction

This chapter aims to link the previous chapters and conduct a cross-section analysis. Through the investigation in chapter 4 it appears that there are two different approaches to establishing dominance in EU law. While the case law of the CJEU has a higher normative value, and thus represents *de lege lata* EU law, the Commission's approach, manifested through its decisional practice and the Guidance Paper, also needs to be taken into account. This is because the Commission is the primary enforcer of Union law in this regard. In chapter 5, the differences between the Commission and the CJEU in their approach to the goals of EU competition law in general, and Article 102 TFEU in particular, were shown. Here, the main difference lays in the Commission's embrace of consumer welfare and the Court's continued emphasis on competition as a goal in itself, although perhaps as a proxy for consumer welfare in turn. The analysis in this chapter applies the error cost framework introduced in section 5.3 using consumer welfare as a benchmark to measure the respective approaches. However, as described in section 5.2.2 the Court might reject the narrowing of the goal of Article 102 to enhance consumer welfare in favour of broader objectives, especially the protection of competition as such. To use error cost analysis might thus not be the only way to analyse the law, as it serves a broader range of goals than merely consumer welfare. Thus, the Court's approach and that of the Commission are also evaluated using preserving competition as the normative telos of the law instead. Finally, I consider that the interplay between these approaches may lead to a lack of legal certainty, especially as it may conflict with the institutions' assigned roles.

6.2 The CJEU's Approach

Through the discussion in chapter 4, it became apparent that the CJEU has embraced quite an expansive view of when a firm is dominant. In contrast to the Commission, it clearly views the 50 % market share-criterion from *AKZO* as a presumption which can be overturned only by exceptional circumstances. Although it requires an examination of such circumstances, the strength of the presumption remains and seems to increase with higher market shares.

Moreover, while the CJEU's stance on barriers to entry is not necessarily far from the Commission's, the Court acknowledged for example both capital costs and vertical integration as barriers to entry in its early case law. While this case law is created through appeals against original Commission decisions - the Court is upholding arguments made by the Commission in the first case - the Commission has 'economised' its

approach in later decisions, see for example *BPB Industries, Telefónica* and *Intel,* and through the introduction of the Guidance Paper. In contrast, the CJEU have been reluctant to embrace the new economic approach in the Guidance Paper as relates to abuse[266], and there is no reason that it would view the Guidance Papers rules on dominance different.

Finally, although in the discussion of Article 102 *Monti's* conceptualisation of dominance as commercial power was largely dismissed, the CJEU's wide conception of barriers to entry does make this a concern. This is a major risk especially if large economies of scale or the economic strength, through a consideration of vertical integration etc., of an undertaking are taken to indicate dominance.

6.2.1 Error Costs of the Court's Approach

When analysing the potential error cost of the Court's approach from a wide consumer welfare perspective, as defined by the Commission, the risk of false positives is large. Taking a cue from the economic theory introduced in chapter 2, it can be established that monopolies are not always negative for consumers, as they may attain significant economies of scale and their market power may be constrained by the threat of potential entry. To prescribe that a market share of 50 % invokes a presumption of dominance is not in tune with these findings. This risks leading to the finding of undertakings as dominant even though they represent the optimal organisation of the market (in terms of overall efficiency) and are forced by the threat of potential competition to transfer part of these efficiency gains to consumers – thus leading to increased consumer welfare.

In the same vein, the wide conception of barriers to entry risks leading to false positives. Just as there are industries which require large investments to be entered into, there are investors with large resources at their disposal. To take the costs of entering such industries into account, and not base this adequately in economic theory by distinguishing sunk costs, risks leading to finding barriers to entry significant where they are in fact marginal, at least for larger investors.

Thus, the requirement of only relatively low market shares, as well as a wide definition of barriers to entry, risks leading to false positives, where undertakings are found as dominant even though they are not.

As regards false negatives, it follows that the expansive definition taken by the CJEU makes the risk for these to occur quite negligible. This is not to say that they do not occur, but simply that the approach is skewed to minimise them.

In analysing the costs of these errors, the arguments of e.g. *Easterbrook* can be advanced: False positives have a potentially more damaging effect (through their durability), since they, unlike false negatives, cannot be remedied by the competitive process. Even if these arguments are not accepted, in the sense that false positives and false negatives are considered to have the same cost, a tilt which only yields one type of error is unlikely to be an optimal one.

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[266] See Section 5.2.2.

6.3 The Commission's more Economic Approach

The Commission has through the Guidance Paper, and to a lesser extent its decisional practice, adopted a different approach than that of the Court. As regards the establishment of dominance the Commission is more reflecting of economic theory than the Court's case law is. As an example, consider the AKZO-presumption. The presumption may reflect an error cost analysis in the first place, i.e. the presumption may be motivated to use if it lessens the evidentiary burden (reduce system costs) more than it increases the risk of errors through its innate formalism (increased false error costs). However, it has been criticised in the literature as over-extensive and leading to unnecessarily high false error costs.[267] In the light of this, the Commission has attempted to qualify the presumption derived from AKZO and instead focus on how market shares are one of many factors to take into account and that the analysis of them should be context based through distinguishing their extent, relativity to other firms and durability.

As regards the Commission's approach to barriers to entry, the absence of superior access to financial resources and vertical integration has already been noted. What characterises the Commission's approach to barriers to entry, as seen in e.g. *BPB Industries, Telefónica* and *Intel,* is the focus on sunk costs as the key to determining whether entry is prevented. As can be seen from section 3.6 this is in line with economic theory as well as the OECD's recommendations.

Finally, as regards the conceptualising of dominance, it is interesting to note that the Commission proposes a definition of dominance as substantial market power through the ability to raise price for a significant period of time. While this may seem to deviate from the approach of the Court, the Commission does take exclusionary power into account when determining dominance. This is done through the analysis of strategic barriers to entry, i.e. barriers to entry created or strengthened by market incumbents.

6.3.1 The Error Costs of the Commission's Approach

In light of the fact that the Guidance Paper was written after a call for economic review of the Commission's policy concerning Article 102 TFEU and its focus on consumer welfare as the objective of Competition law, it should come as no surprise that the approach endorsed by the Commission mitigates the risk of the false positives identified above.

The attempt to contextualise the role of market shares as one factor of many in the determination of dominance, and to not use it as a

[267] See section 4.4.1.

presumption, reflects the receptiveness of the Commission to the contestable markets theory presented in chapter 2. The Commission thus considers that undertakings often face competitive constrains even when they have large market shares. Indeed, the Commission's approach seems to lead to less false positives in this regard.

However, while monopoly markets can be contestable, they are not always so. Even if the Commission no longer refers to some of the more controversial barriers to entry, it still acknowledges that there may be significant barriers to entry. This is apparent in the wide range of possible barriers to entry it cites. Thus, the lessening of false positives cannot in my view be argued to lead to a corresponding increase in false negatives.

As regards the conceptualising of dominance as substantial power over price, this can be viewed as ascertaining that when such power is not held by the undertaking it is not dominant. This strengthen the possibility of using dominance as a filter and reduces the chance of false positives. The increase in false negatives that may arise from this is probably minimal. Firstly, strategic barriers to entry are taken into account, and thus exclusionary power is analysed to some extent at the stage of dominance. Secondly, the chance of false negatives consisting of undertakings which lack substantial market power but engage in predatory pricing strategies to gain it are likely small and not necessarily as costly as when undertakings with substantial market power engage in them. This is because without substantial market power, it is more likely that competition from other undertakings will constitute effective constraints on such behaviour. This also reduces the risk of such behaviour, as undertakings will take the small chance of successfully attaining substantial market power into account when determining whether to execute it or not.

A natural conclusion to the error cost analysis is thus that the Commission's approach would lead to less error costs than the Court's. The obvious question is thus: Why has it not been adopted? This is what the following section seeks to answer.

6.4 Evaluating the Court's Approach through a Lens of Preserving Competition

When evaluating the Court's approach against the goal of preserving competition, the result is quite different. Independently of whether competition is protected as a process of economic freedom or as a proxy for consumer welfare, it provides a justification for the Court's approach.

The AKZO-presumption makes sense if one considers that the existence of an undertaking with such a large market share itself is a limitation to the competitive process. Moreover, it was shown in section 5.2.2 that embracing competition as the goal for Article 102 TFEU may inherently reject the argument that monopolies or similar concentrations are the optimal way to achieve consumer choice or welfare, since such structures in themselves prevent the effective measuring of it.

Similarly, the wide concept of barriers to entry adopted by the Court is beneficial to protecting competition. If the competitive process is the goal worthy of protection, the law should be proactive in dealing with this, and arguments concerning that limiting the competitive process to increase the efficiency of incumbents can be rejected on the grounds established in 5.2.2.

Finally, as regards the commercial power of undertakings, this is not necessarily a false positive, as large financial means may allow a dominant undertaking to exercise anti-competitive strategies such as predatory pricing to a greater extent – thus harming competition.

As regards the burdens imposed on dominant undertakings I find that this may not be viewed as negatively when the law is evaluated against the goal of competition. If an undertaking is found to be dominant when it is not, it does not pose a risk to the preservation of the competitive process to the same extent as if a dominant undertaking is not detected. The reason for this is that if the undertaking loses market shares to competitors, the competitive process is changed, but not lessened. Obviously, this ignores the tremendous cost which will be inflicted on the individual undertaking, and also the cost on consumers, but these are held to be minimal, and thus justified, through the concept of special responsibility. This special responsibility only requires the undertaking to not abuse its dominant position. While the undertaking is not allowed to let its conduct impair genuine undistorted competition on the common market, it can still compete on the merits. Normatively, the undertaking is thus treated fairly and merely required not to threaten the economic freedom of others.

For this reason, the concept of special responsibility of dominant undertakings is central to the approach of having competition as a goal: it provides a justification for an inclusive interpretation of dominance by allowing dominant undertakings to still have access to normal means of competition.

6.5 Rejecting the Commission's Approach

If the Court's approach is accepted as state above, it indicates that the Commission's approach may not be optimal. If the AKZO-presumption serves the purpose of the law by protecting competition, contextualising it may do the opposite. Moreover, as a presumption the rule serves to aid in the effectiveness of the law, by lessening the evidentiary standards imposed on the enforcer. If an undertaking is not presumed to be dominant when it has a market share of 50 % the evidentiary burden is moved. Instead of the Commission having to examine whether there are exceptional factors, especially in cases where this is pointed out by the undertaking, it may have to provide stronger proof that there are significant barriers to entry. While such requirements may improve the accuracy of the law, they also increase the cost of the legal system and may risk the effectiveness of the law where the presumption would have been satisfied but further proof is hard to attain. In the end, it is difficult to be conclusive on this point, as the Commission's approach has not been developed through case law and the division of the evidentiary burden remains unclear.

As regards the more economic approach to barriers to entry, the changes made are quite small. As the Guidance Paper still adopts a relatively wide conception of barriers to entry, it is unlikely that the protection of competition is hindered.

More critical is the narrowing of the concept of dominance proposed by the Commission, linking dominance to substantial power over price. If protecting the competitive process is the goal, taking the ability to perform exclusionary behaviour into account is key to determine potential competition concerns. Even if the ability to behave in an exclusionary manner is in principle always dependent upon substantial market power being held, it is still a risk that undertakings falling outside the filter may wound the competitive structure or attain a monopoly before they are stopped.

Thus, if the premises behind the Court's case law are accepted, that is that Article 102 TFEU serves to protect the competitive process itself, a normative evaluation of the Court's and the Commission's approach may instead favour the approach of the Court.

6.6 Conclusion

In conclusion, the above analysis has shown that the Commission's new economic approach to establishing dominance in Article 102 TFEU is appropriate to lessen the risk of false negatives and positives when evaluated against the benchmark of consumer welfare. The Commission's approach serves this goal better than the case law. This is perhaps self-explanatory; the Commission adopted the rules in the approach after a review of its policy in light of economic theory. Simultaneously, it was shown that the CJEU, which has emphasised protecting 'competition as such' may be motivated by this goal to stand by the formulations in the case law. Even if the case law does not reflect current economic thinking, it does reflect the goals of competition law, as pronounced by the CJEU. As such there is a coherence to the CJEU's viewpoint. It is, as EU law according to its internal logic should be, created through a teleological interpretation of Article 102 TFEU, where the context and purposes of the legislation has directed the interpretation in the case law.

However, this analysis highlights the problem that the results of evaluating these approaches depends on the framing or perspective embraced. If the CJEU's plurality of goals is accepted, the case law is an acceptable result. However, if consumer welfare is embraced, it may lead to negative consequences in the form of consumer harm. In terms of determining the law, it is simple to point out that the CJEU sets the law, and the Commission enforces it, and thus the legal certainty in what binding EU legal sources states is not in question. However, as discussed in section 5.2.2, the ultimate casualty of the incoherence between the Commission's approach and the Court's may be the legal certainty and foreseeability in the Commission's enforcement of the law. The reason for this is that the Commission may be expected by undertakings to follow its Guidance Paper but such adherence may not be strictly enforced by the Court. If the CJEU thus holds the Commission to laxer legal and evidentiary standards for the

finding of dominance than the Commission itself proposes, this might hinder the steps the CJEU has taken to ensure full judicial review in competition cases. Thus, if the Commission in the future diverges from its own standards, time will tell who watches the watchman.

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