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ABUSE OF DOMINANT POSITION IN THE ICT SECTOR: A EUROPEAN PERSPECTIVE

Master's Thesis

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ZNEUŽITÍ DOMINANTNÍHO POSTAVENÍ V ICT SEKTORU: EVROPSKÁ PERSPEKTIVA

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Table of Contents

List of abbreviations

AEC	as-efficient competitor
AG	Advocate General
CJEU	Court of Justice of the European Union
DG	Directorate-General
DT	Deutsche Telekom
ECSC	European Coal and Steel Community
EEA	European Economic Area
ICT	information and communication technology
OEM	original equipment manufacturer
SSNIP	small but significant and non-transitory increase in price
TFEU	Treaty on the Functioning of the European Union
TP	Telekomunikacja Polska
WMP	Windows Media Player

1 Introduction

1.1 Objectives

One category of practices which are prohibited under European competition law is *abuse of dominant position* which refers to conduct in which a dominant market player may engage in order to maintain or strengthen its position in the market. This thesis provides insight into theory, policy, and the latest decisional practice of abuse of dominance in the European Union. Particular attention is paid to the quickly developing information and communication technologies (ICT) industry. A lot of new powerful market players emerge in the sector and create entirely new markets for themselves. This increases the potential risk for an abuse of dominant position and, after all, that is why the most prominent cases in the previous years have occurred in this industry.

This thesis is written with several goals in mind. The general objective is to introduce the topic to lawyers who are not quite familiar with the details of European regulation in this area and are particularly interested in the recent high-profile cases. The thesis attempts to identify the specifics of the cases in the technology sector and to find their common features. The goal is also to depict the recent and possible future developments in the decision-making. As the conclusions of abuse investigations heavily depend on economic analyses, rather than on traditional legal approach, this thesis likewise aims to introduce the economic fundamentals of the regulation in more detail than similar works.

1.2 Outline

The thesis is structured into the following chapters:

Chapter 2 firstly introduces the microeconomic theory of competition and aims to present the reasons why competition is protected, how different scholars envisage the best ways to regulate it, and which of these ideas are applied in regulatory practice in the United States and European Union. The chapter also discusses the theoretical foundations of European competition law and the historical development of the approach to abuse of dominant position.

Chapter 3 defines the essential legal terms associated with dominant position. The text focuses especially on the concepts of relevant market and dominance which are crucial when assessing whether an undertaking broke the rules. Examined are the development of these terms over time and their importance in current practice. Special attention is paid to the aspects of the investigations which have been crucial to conclusions in the important ICT cases.

After briefly delimiting the ICT industry and its characteristics, chapter 4 focuses on the concept of abuse itself and the development of the term in the eyes of EU law. The text then outlines the individual forms of abuse and discusses the most frequent forms in the technology sector in more detail. Those are illustrated on the most prominent cases from the industry, most importantly on the cases against Microsoft, Intel, and different telecommunications operators, as well as the ongoing investigations against Google.

Based on the findings from the previous part, chapter 5 analyses the most recent developments of the European Commission’s and the CJEU’s decision-making in the area. The text deals with the most debated trends in the individual parts of the assessment, including the growing tendency to use more complex economic methods to evaluate the situation in the markets and the undertakings’ behaviour. It attempts to depict the conclusions of the latest discussions about EU’s investigations into technology companies’ conduct.

1.3 Methodology

With regard to the objectives set above and complexity of the cases, this thesis primarily adopts the traditional doctrinal approach which comprises the descriptive analysis of the relevant legislation and case law. Legal academic literature on the subject matter is employed to ensure comprehensiveness. Especially the content of chapters 3 and 4 is based on generalisation of the findings drawn from the decisional practice. Crucial decisions of the Commission and the CJEU as well as the Commission's notices and other policy documents serve as illustration of developments in the regulation and the current approaches to the key legal concepts. Chapter 5 then more critically assesses the decisional practice and analyses the latest developments.

2 Fundamentals of the regulation

2.1 The theory of competition

2.1.1 Introduction

No branch of law is more based on economic theories than competition law. The very essence of this area of law is based on the economic notion that competition is desirable and monopoly harmful. This idea has existed since long before there were any economists, but economic theory has shown more formally that rivalry in a market is something worth promoting and protecting.[1] Even though competition has been regulated by law for centuries it has been researched mostly by economists and the principles of its contemporary regulation largely stem from economic models. That is also the reason why economic methods have been used with increasing frequency by competition authorities to evaluate the situation in the market, marking a trend discussed later in this thesis.

Competition has been a subject of modern economic research at least since Adam Smith's Wealth of Nations where he warned against the negative effects of monopolies and identified conditions under which collusions usually occur. Smith's neoclassical followers have then established the first models of different industrial organizations. These models—which have been accepted as the basis for modern microeconomics by all future economic schools—describe and explain how participants behave in the market in cases of monopoly, oligopoly, monopolistic competition, and perfect competition.[2] An elementary comprehension of these models is crucial for understanding why and how to regulate competition and contemporary policymakers are well aware of this. Even though explaining the models in full goes beyond the

[1] Gunnar Niels, Helen Jenkins, and James Kavanagh, *Economics for Competition Lawyers* (2nd edn, OUP 2016) 2.

[2] Luc Peeperkorn and Vincent Verouden, 'The Economics of Competition' in Jonathan Faull and Ali Nikpay (eds), *The EU Law of Competition* (OUP 2014) 5.

purpose of this thesis I aim to explain at least the consequences of the basic market structures for economic efficiency and consumer welfare.

2.1.2 Perfect competition

Perfect competition is a model which describes one of the extreme situations in the market. It assumes there is plenty of sellers and buyers, they all have perfect information, and the product of all sellers is homogeneous. It further presumes the firms are identical and there is both free entry and exit out of the market. These assumptions have a number of implications. From the economic perspective, the most important one is that in equilibrium the market price is equal to both average cost and marginal cost and is the same for all producers.[3] Other important implication is that no producer makes economic profit. As the products are perfect substitutes and the demand is perfectly elastic, no producer can influence the market price in any way. An increase in price would lead to immediate loss of all customers and a decrease in price would lead to economic loss regardless of increased sales.

However unrealistic because of the low probability of achieving the conditions in practice, perfect competition is the model of an ideal organization of the market from several perspectives. As a consequence of the presumptions perfect competition offers greater efficiency than any other market structure. Firstly, it guarantees *allocation efficiency*. This means that resources are allocated between different goods in such a way that it is not possible to make someone better off without making someone else worse off.[4] Secondly, perfect competition delivers *productive efficiency*. That is achieved when a given set of products is being produced at the lowest possible cost and, therefore, the maximum output is produced with the given resources.[5] The combined effect of allocative and productive efficiency means that the

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[3] The marginal cost of a product is the cost of producing the next unit of the product. Simon Bishop and Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement* (3rd edn, Sweet & Maxwell 2010) 22-23.

[4] Richard Whish and David Bailey, *Competition Law* (8th edn, OUP 2015) 5.

[5] Peeperkorn and Verouden (n 2) 21.

market offers lower prices, better products, and wider choice than any other market structure and that the society's wealth is maximized.[6]

If such a market existed there would surely be no need for competition authorities to intervene in any way. However, it should be noted that perfect competition is not supposed to be a dogmatic model. It is the ideal scenario for some markets, but in many cases it is, in fact, not the most effective form of competition since it might not lead to the most desirable results. Because there are many producers, perfect competition entails duplication of fixed costs, thus representing a loss in terms of aggregate productive efficiency. For instance, a merger leading to an increase in market power, rise in prices, and causing a loss in allocative efficiency may also generate an increase in welfare due to cost savings. This phenomenon is known as *economies of scale and scope*.[7] Also, as the model is static—and therefore considers the situation in the market only at one point in time—it does not consider the effect of innovation. In highly innovative markets where producers compete on innovation rather than on price, other market structure might in the long term bring higher welfare than perfect competition.[8]

2.1.3 Imperfect competition

The market structures that do not show all features of perfect competition are labelled as *imperfect competition*. The most extreme case and de facto the opposite structure to perfect competition is *monopoly*. The monopoly model assumes there is only one seller in the market and that there are barriers which practically prevent entry to the market.

The monopolist uses a very different strategy than firms in a perfect competition market. Both its production and pricing strategy are aimed at maximizing the monopolist's profit. Its market power allows the monopolist

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[6] Whish and Bailey (n 4) 4-5.

[7] However, this process involves a transfer of wealth from consumers to producers. See Pinar Akman, *The Concept of Abuse in EU Competition Law: Law and Economic Approaches* (Hart Publishing 2012) 21.

[8] Bishop and Walker (n 3) 45.

to determine the market price by varying its output. The firm achieves the largest profit when it keeps its output on a lower level than under perfect competition. As a result, consumers are deprived of goods and services that they would be prepared to pay the competitive market price for.[9]

On its way to maximize the profit, the monopolist attains the highest possible market surplus for itself, not only leaving customers deprived of their share on the surplus,[10] but also generating *deadweight loss*. That simply means that—compared to more competitive market structures—under monopoly the consumers lose more utility than how much more the producer gains. As a result, allocative inefficiency occurs and the economy ends up performing below its potential.[11]

As mentioned in the previous subchapter, perfect competition may not the be the ideal structure for some markets. Monopoly may be the durable condition of the market because a single seller can supply the entire market at lower cost than multiple sellers thanks to economies of scale and scope.[12] That is what is known as *natural monopoly*. Where real natural monopoly exists, it is not desirable to attempt to force the market into competition which might destroy the efficiency that the monopoly entails.[13] However, the risk of the sole producer abusing its position remains, therefore even natural monopolies are subjects to the competition authorities' scrutiny.

As in the case of perfect competition, a pure monopoly is a highly unlikely scenario. On the other hand, another of imperfect market organizations, *oligopoly*, is of a much more frequent occurrence and economics provides us with number of useful models for analysing it. Nevertheless, these models are more valuable for lawyers dealing with cartels and other prohibited agreements between competitors. Therefore, the

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[9] Whish and Bailey (n 4) 7.

[10] Which itself is not an undesirable effect from an economic perspective since this surplus transfer has no impact on efficiency.

[11] Whish and Bailey (n 4) 7.

[12] Richard A. Posner, *Economic Analysis of Law* (9th edn, Wolters Kluwer Law & Business 2014) 334.

[13] Ibid 339.

description of monopoly can be considered sufficient for the purposes of this thesis, as the model highlights a number of important concepts and provides the clearest example of what competition policy aims to prevent.

While the presented models provide a useful starting point for analysing the efficiency of competition, most markets do not fit into them. Therefore, neither of them provide a sound basis for policy decisions.[14] However, they can be used to illustrate some of the concepts that enable one to judge, for instance, whether an intervention by competition law authorities is likely to improve economic efficiency or consumer welfare.

2.2 Schools of economic thought and competition

As the models of perfect competition and monopoly has been known to economists since the 19th century, they are very simplifying and hardly offer a proper basis for complex regulation. The theory of competition widely expanded during the 20th century as competition became the subject of more advanced rules in the United States of America and Europe. In the U.S., several distinguishable schools of thought have developed, each highlighting slightly distinct goals of competition policy.

The *Harvard school* emerged in the 1950s. Not satisfied with the limits of the previous theories which relied on assumption-based deductions, the Harvard school economists worked with large files of data from the markets.[15] They tried to develop general insights concerning likely company behaviour, effects on the market, and possibilities for government intervention.[16] They considered market power to be harmful for efficiency and competition itself to be the goal. To create and promote competitive processes, the policy focused on structural remedies. Since the policies

[14] Bishop and Walker (n 3) 16.

[15] Peeperkorn and Verouden (n 2) 5.

[16] Ibid.

extended the scope of liability under competition law, the school is considered relatively sympathetic to government intervention.[17]

As a counter-weight to the Harvard school, neoliberals from the *Chicago school* developed their own approach in the 1960s. They argued that competition policy should be less concerned with market structure and emphasised that economic efficiency should be the exclusive goal of competition enforcement policy.[18] They also showed that many practices deemed anti-competitive can be efficient and should, therefore, not be prohibited as such but reasonably assessed.[19] Among other things, they argued that natural entry barriers are rarely very high and all of them can be overcome in time,[20] or considered predatory pricing to be highly unlikely.[21] These ideas revolutionized U.S. competition law in the 1970s and 1980s, resulting in a less interventionist, and more economics-based, approach.[22] Nevertheless, in the eyes of some this led to a weakening of competition law enforcement, especially with regard to cases of abuse of dominant position.[23]

The economic methods proposed by Chicago school remain at the core of contemporary competition policies. However, some new approaches have grown out of the criticism of several aspects of the school. Relying more on empirical data, modern economic theories of industrial organization—sometimes grouped as *post-Chicago* since the 1980s—get closer to the premise that in reality markets often function imperfectly.[24] Therefore, post-Chicago scholars suggest the scrutiny of a wider variety of anti-competitive

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[17] Akman, *The Concept of Abuse in EU Competition Law* (n 7) 26.

[18] Ibid 27-28.

[19] For instance because of economies of scale and scope in cases of natural monopolies, as explained in the previous subchapter. See Niels, Jenkins, and Kavanagh (n 1) 4.

[20] Peeperkorn and Verouden (n 2) 7.

[21] Especially due to high costs to the predator, as explained in Posner (n 12) 374.

[22] Niels, Jenkins, and Kavanagh (n 1) 4.

[23] Wolfgang Wurmnest, 'The Reform of Article 82 EC in the Light of the "Economic Approach"' in Mark-Oliver Mackenrodt, Beatriz Conde Gallego, and Stefan Enchelmaier (eds), *Abuse of Dominant Position: New Interpretation, New Enforcement Mechanisms?* (Springer-Verlag Berlin Heidelberg 2008) 1.

[24] Akman, *The Concept of Abuse in EU Competition Law* (n 7) 29.

practices, including bundling, tying, predation, or leveraging of market power.[25]

2.3 Historical development of the regulation

Like in other areas of competition law, the first modern regulation of the abuse of dominant position was enacted in the United States. As some markets became dominated by monopolies during the 19th century, the Congress enacted the *Sherman Antitrust Act* in 1890. The Sherman Act banned monopolization—the U.S. parallel to abuse of dominant position. Its Section 2 stipulated that 'every person who shall monopolize, or attempt to monopolize, [...] any part of the trade or commerce [...] shall be deemed guilty of a felony'.[26] The signature case of the following crackdown was the one against Standard Oil in 1911 when the Supreme Court ruled to divide the largest petroleum producer in the world into several eventually competing units.[27] In this early approach it is possible to see traces of the thinking typical for the first half of the 20th century when competition itself was the goal of policymakers.

The U.S rules were a notable inspiration for the early Community regulation. Since the U.S. antitrust regulation was the most complex at the time, American lawyers were invited to take part in the drafting of the Community's competition provisions in 1950s.[28] The European regulation, however, has always had differences from the U.S. antitrust law, as it was established for very different reasons. While the Sherman Act was borne of the desire to dismantle a number of cartels and conglomerates, the European competition law has been a part of the plan to break down trade barriers and integrate the Member States' economies. Another reason for the differences

[25] Niels, Jenkins, and Kavanagh (n 1) 4.

[26] Sherman Act, 15 U.S. Code (1890), para 2.

[27] Standard Oil Co of New Jersey v United States, 221 U.S. 1 (1911).

[28] Robert O'Donoghue and Jorge Padilla, *The Law and Economics of Article 102 TFEU* (2nd edn, Hart Publishing 2013) 60-62.

is philosophical. In contrast with the traditionally more liberal policies in the U.S., the European regulation—having greater confidence in the regulators' assessment of the markets—has adopted a more interventionist approach.[29]

It is widely assumed that the largest influence on the earliest European regulation was German ordoliberalism.[30] Ordoliberals believed that competition was necessary for a prosperous and free society and law should be used to create and maintain the conditions under which competition can function properly.[31] Therefore, they maintained that certain restrictions on a dominant firm's behaviour were necessary and appropriate. While they considered *performance-based forms* of competition—such as non-predatory lower prices or better products—to be legitimate ways to exclude rivals, they believed non-performance-based conduct like below-cost prices should be prohibited.[32] However, it is also argued that the influence of ordoliberal thinking on the current EU competition law is overestimated.[33] The main reason is that for ordoliberals efficiency does not seem to be an objective but rather an expected result of competition,[34] while the objective of 'effective competition' was articulated already in the Treaty of Paris in 1951. And with the increasing influence of the Chicago *effects-based approach* (discussed further in chapter 5.2), the association of the EU competition law with ordoliberalism is further diminishing.

At the time of the founding Community treaties in 1950s, only Germany had significant competition laws.[35] Nevertheless, in the project of European integration, protection of competition has been one of the flagship policies since its inception. Competition law rules were included already in the Treaty of Paris establishing the European Coal and Steel Community

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[29] Ibid.

[30] For instance by Akman, *The Concept of Abuse in EU Competition Law* (n 7) 55.

[31] O'Donoghue and Padilla (n 28) 56.

[32] Ibid 57.

[33] For instance by Whish and Bailey (n 4) 23 or 205.

[34] Akman, *The Concept of Abuse in EU Competition Law* (n 7) 60.

[35] Modern German competition law was adopted in 1957. See O'Donoghue and Padilla (n 28) 59.

(ECSC) in 1951. Its Article 66(7) included a provision giving the ECSC the authority to prevent 'undertakings, which [...] hold or acquire [...] a dominant position shielding them against effective competition in a substantial part of the common market, [from] using that position for purposes contrary to the objectives of this Treaty'.[36]

While the regulation set in the Treaty of Paris had never been applied, it served as the main inspiration for the provisions enshrined in Article 86 of the Treaty establishing the European Economic Community (TEEC) from 1957. The legislative discussions involved, for instance, the question whether to prohibit dominant position itself or only its abuse.[37] Exclusionary abuses were also originally intended not to be covered at all.[38] Finally, the wording in Article 86 TEEC was simplified and a demonstrative list of abusive conducts was added. The article has not undergone any reform since and the provisions precisely correspond to Article 102[39] of the Treaty on the Functioning of the European Union (TFEU) as we know it today. However, it took some time for the regulation to be applied in practice and for detailed rules to be formed. Only the late 1960s and the 1970s saw a more active enforcement policy and a series of judgments that elaborated on the basic elements of abuse and that still constitute the cornerstone of the regulation today. The 1980s and the 1990s were then characterised by development of several operational rules for specific abuses by the CJEU.[40]

Since the late 1990s, the European Commission has made a considerable effort to reform all the pillars of the competition policy. It has taken s considerable inspiration from the Chicago effects-based approach, contrasting with the more legalistic, or *form-based*, approach that had prevailed in the European regulation since its inception. Nowadays,

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[36] Treaty establishing the European Coal and Steel Community [1951] (Treaty of Paris).

[37] Pinar Akman, 'Searching for the Long-Lost Soul of Article 82EC' (2009) 29 Oxford Journal of Legal Studies 281.

[38] O'Donoghue and Padilla (n 28) 60.

[39] Throughout the thesis the current article numbering of the TFEU is used regardless the context.

[40] O'Donoghue and Padilla (n 28) 63.

competition law in Europe and elsewhere has more or less caught up with the ideas of the Chicago and post-Chicago schools which arguably remain the leading influence on competition policy around the world.[41]

2.4 Objectives of Article 102 TFEU

While Article 102 regulates a relatively wide variety of business conducts, they all share certain guiding principles. These principles are generally based on the previously explained economic theories and comprise the priorities upon which the regulation and its enforcement are built. Historically, there has not been one single unifying policy underpinning the competition rules of the EU. Since competition policy is an expression of the current values of society, it is as susceptible to change as political thinking in general.[42]

The most often discussed goals of competition policy include economic efficiency, protection of market structure, fairness, dispersion of economic power, or maximisation of consumer welfare. Lately, the usual debate in many jurisdictions has been about whether *consumer welfare* should have primacy over *economic efficiency*. Fortunately, they both often go hand in hand and competition policy can enhance both of them simultaneously.[43]

For a long time, there has been a perceivable contrast between the traditional view to protect competition itself, which was applied by the European courts, and the Anglo-Saxon consumer welfare approach.[44] However, in recent years the European authorities have been increasingly stressing the importance of consumer welfare when interpreting and applying competition law. The European Commission formally expressed its priorities in enforcing Article 102 for the first time in a guidance paper published in 2009 and it has straightaway referred to consumer welfare. The paper states

[41] Niels, Jenkins, and Kavanagh (n 1) 4.

[42] Whish and Bailey (n 4) 20.

[43] Niels, Jenkins, and Kavanagh (n 1) 18.

[44] Wurmnest (n 23) 9.

that 'in applying Article [102] to exclusionary conduct by dominant undertakings, the Commission will focus on those types of conduct that are most harmful to consumers'.[45] As pointed out by Philip Lowe, the former Director-General of DG Competition, 'competition is not an end in itself, but an instrument designed to achieve [...] consumer welfare'.[46] The CJEU has also repeatedly stated that 'the function of those rules is precisely to prevent competition from being distorted to the detriment of the public interest, individual undertakings and consumers'.[47] However, even though it appears that consumer welfare is assuming greater importance as the ultimate objective of the EU competition policy, the concept does not necessarily play an instrumental role in the competition analysis, unlike in the U.S. antitrust law.[48] The Commission itself most likely does not have a properly defined consumer welfare standard which it would follow in its decisional practice. While the Commission at times refers explicitly to the consumer as the ultimate benefactor, the assessment of the impact on consumers is often merely vague, considering their welfare to be a natural consequence of functioning competition.[49]

The legislators must also consider that competition law cannot end up being overly protective of the consumers. Competition law is not consumer law, and as such it should not go as far as attacking all types of practices that may be detrimental to consumers unless that practice is harmful to competition.[50] An apparently consumer-friendly regulation might have the same negative impact as many well-intentioned interventionist economic policies in other areas. The dominant firm might choose to abandon the

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[45] Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings [2009] OJ C 45/7 (Guidance Paper), para 5.

[46] Philip Lowe, 'Preserving and Promoting Competition: A European Response' (2006) 1 Competition Policy Newsletter 1.

[47] For instance in Case C-52/09 *Konkurrensverket v TeliaSonera Sverige* EU:C:2011:83, [2011] ECR I-527, para 20.

[48] Bishop and Walker (n 3) 32.

[49] Akman, *The Concept of Abuse in EU Competition Law* (n 7) 144.

[50] Ibid 47.

market altogether rather than comply with unreasonable competition law, harming economic efficiency and, in the long run, the consumers as well.

Regarding the protection of the other market players, both academic debate and the Commission have concluded that what really matters is protecting an effective competitive process and not simply protecting competitors.[51] On the other hand, even though EU competition law primarily serves to protect the competitive process and consumers, it consequently protects competitors and suppliers as well. That is evident especially when observing the approach to some specific abusive conducts. For instance, while predatory pricing can be beneficial to customers in the short term, the law protects the dominant undertaking's competitors, since in the long term the customers might lose out on the resulting market structure. The other example may be excessive pricing, where the dominant undertaking's suppliers are protected in order to achieve the regulation's primary goals.[52]

As highlighted in the wording of Article 102, EU competition policy fulfils an additional and quite different function from those previously described. This is that EU competition law plays an important role in facilitating and defending the single market.[53] The competition rules may be seen as complementing free movement provisions by preventing barriers to trade being erected by private entities.[54] This function is thus in harmony with the goals of economic efficiency and consumer welfare and effectively serves to enforce them.

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[51] Akman, *The Concept of Abuse in EU Competition Law* (n 7) 44-45; Guidance Paper (n 45), para 6.

[52] O'Donoghue and Padilla (n 28) 6, 10.

[53] Whish and Bailey (n 4) 23-24.

[54] Vivien Rose and David Bailey, *Bellamy and Child: European Union Law of Competition* (7th edn, OUP 2013) 8.

3 Determining dominance

3.1 Introduction

'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.'[55]

Article 102 TFEU is at the core of the European regulation of abuse of dominant position. While the enforcement rules are enshrined in Regulation 1/2003,[56] the ambiguities in the wording of Article 102 are mostly not elaborated on in any legislative act but rather resolved by the CJEU. Not inconsiderable is also the importance of some non-binding documents issued by the European Commission. Most commonly in the form of Commission notices or guidance papers, they offer a useful insight into the objectives and investigation procedures of DG Competition.[57]

This chapter focuses on some of the most important terms whose proper understanding is essential to full comprehension of the regulation. As only dominant undertakings can be held liable for an Article 102 infringement, this chapter focuses on the first part of the Commission's investigation which lies in finding the relevant market and assessing the concerned undertaking's position in it.

However, some more terms require clarification first. The regulation only covers *undertakings*. In *Höfner and Elser v Macrotron*, the Court of Justice ruled that 'the concept of an undertaking encompasses every entity

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[55] Consolidated version of the Treaty on the Functioning of the European Union [2012] OJ C 326/47 (TFEU), art 102.

[56] Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty [2003] OJ L 1/1 (Regulation 1/2003).

[57] Especially the Commission's Guidance Paper from 2009 (n 45) will be frequently referred to, as it presents a relatively modern approach towards some of the discussed issues, which makes it at times more useful than the established case law when analysing the current cases.

engaged in an economic activity, regardless of the legal status of the entity and the way in which it is financed'.[58] In the practice of the CJEU, *economic activity* is then understood as 'any activity consisting in offering goods or services on a given market'.[59] This functional approach widens the group of entities which may be classified as undertakings to include not only companies but also societies, trade associations, or even individuals.[60] The CJEU has, on the other hand, repeatedly denied to grant the status of undertaking to entities which exercise activities typical for public authorities.[61] The question of what actually constitutes a single economic entity was resolved when it was ruled that a subsidiary, although having separate legal personality, is considered to be a single economic entity with the parent company when the subsidiary does not decide independently on its conduct in the market but rather carries out the instructions given to it by the parent company.[62]

3.2 Relevant market

3.2.1 General principles

The first essential step in assessing whether an undertaking holds a dominant position in a market is to define the relevant market where such a position is supposed to be held. As the Commission puts it in its Notice on Market Definition, the objective of this assessment is 'to identify those actual competitors of the undertakings involved that are capable of constraining

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[58] Case C-41/90 *Höfner and Elser v Macrotron* EU:C:1991:161, [1991] ECR I-1979, para 21.

[59] For the first time in Case 118/85 *Commission v Italy* EU:C:1987:283, [1987] ECR 2599, para 7; later confirmed in competition law cases, such as Joined cases C-180/98 to C-184/98 *Pavel Pavlov* EU:C:2000:428, [2000] ECR I-6451, para 75.

[60] Daniel Ezrachi, *EU Competition Law: An Analytical Guide to the Leading Cases* (4th edn, Hart Publishing 2014) 4.

[61] For the first time in Case C-364/92 *SAT Fluggesellschaft v Eurocontrol* EU:C:1994:7, [1994] ECR I-43, paras 30-31.

[62] Case 48/69 *Imperial Chemical Industries v Commission* EU:C:1972:70, paras 132-33.

those undertakings' behaviour and of preventing them from behaving independently of effective competitive pressure'.[63] That is practically achieved by 'identifying the effective alternative sources of supply for the customers',[64] i.e. measuring to what extent are the undertaking's products substitutable for products of its competitors. This framework has subsequently received the approval of the CJEU, for instance in *AstraZeneca*.[65]

Identification of the relevant market is often crucial for the outcome of the whole investigation. Too narrow delimitation of the market would attribute dominant position to an undertaking whose goods or services are in fact easy to substitute. On the other hand, too wide delimitation could result in an abusive behaviour escaping scrutiny. This means that the assessment is a relatively complex process, and thus the Commission uses increasingly advanced economic methods to mark out the relevant market precisely. The CJEU admits that, as a result, the methods are subject to only limited review by the judicature.[66]

The relevant market is defined along *product* and *geographic* dimensions which will be elaborated on below.

3.2.2 Product market definition

A lot has changed since the early cases, such as *Continental Can* or *United Brands*, where the Commission and the CJEU applied qualitative approach to market definition. The subjective assessment—which often ignored the fact that market definition is not about physical differences but about substitutability—was prone to errors and thus replaced by quantitative

[63] Commission notice on the definition of relevant market for the purposes of Community competition law [1997] OJ C 372/5 (Notice on Market Definition), para 2.

[64] Ibid, para 13.

[65] Case T-321/05 *AstraZeneca v Commission* EU:T:2010:266, [2010] ECR II-2805, para 86.

[66] For instance in Case T-201/04 *Microsoft v Commission* EU:T:2007:289, [2007] ECR II-3601, para 482.

methods relying on multiple economic models and large sets of data collected from the markets.[67]

What is measured and how is described in detail in the Notice on Market Definition. According to the Notice, a relevant product market comprises 'all those products and/or services which are regarded as interchangeable or substitutable by the consumer, by reason of the products' characteristics, their prices and their intended use'.[68] To evaluate the firm's strength in the market the focus is on the firm's *competitive constraints*, most importantly on demand substitutability and supply substitutability.

Of these, *demand substitutability* is considered to be of the highest significance to the assessment.[69] The basic assumption is that whenever the firm raises the price in the market it loses customers because they substitute the firm's products for the products of its competitors. However, they might not be able to do so if these substitutes are not available, indicating the producer's dominant position in the market. To model the customers' behaviour, the Commission has adopted the so-called *SSNIP* ('small but significant and non-transitory increase in price') *test*. The test is based on the concept of price elasticity. It usually employs either direct evidence in the form of consumers' past behaviour or indirect evidence in the form of estimates based on econometric analyses.[70] It is measured whether a small but significant increase—i.e. in the range 5 % to 10 %—in price of the considered product would be profitable for the producer. If it was not, the best substitute of the product is added to the test in the next step. This is repeated until the set of products is such that the increase in price would be profitable.[71] That kind of market would be worth monopolizing for the producer and, therefore, it is considered the relevant market for the purposes of competition law.

[67] O'Donoghue and Padilla (n 28) 98-99.

[68] Notice on Market Definition (n 63), para 7.

[69] Ibid, para 13.

[70] O'Donoghue and Padilla (n 28) 101.

[71] Notice on Market Definition (n 63), para 17.

The SSNIP test was applied by the Commission, and acknowledged by the General Court, notably for instance in *France Télécom*. France Télécom's subsidiary Wanadoo contested the Commission's fine for predatory pricing in the market for high-speed internet access services, claiming there is only one market for internet access. A survey carried out on behalf of the Commission found out that, in response to a SSNIP, 80 % of Wanadoo's subscribers would maintain their subscription rather than switch to low-speed internet access. Referring to the Notice on Market Definition, the General Court ruled that this strongly indicates the absence of demand-side substitution and thus confirmed that the market for high-speed internet access is indeed the relevant market in this case.[72]

Nevertheless, the SSNIP test is not universal. It has been proven problematic for example in cases when a strongly dominant firm is already charging monopolist prices, leading the analysis to underestimate the firm's real market power.[73] Another problem is that at times not enough data is available for such a detailed analysis. In that case, however, it is still useful to think of the relevant market definition in terms of SSNIP as the question it poses brings valuable structure to the assessment.[74]

The other competitive constraint an undertaking faces is *supply substitutability*. In this case, it is not the customers' but the potential competitors' behaviour which is considered. Supply-side substitution thus occurs when—as a reaction to a SSNIP by the concerned undertaking—suppliers in the neighbouring markets can easily and in a short period of time adjust their production and offer products in the relevant market.[75] If such producers are found the relevant product market is broadened to include them. In the assessment, supply substitutability is generally of secondary

[72] Case T-340/03 *France Télécom v Commission* EU:T:2007:22, [2007] ECR II-107, para 90; Ezrachi (n 60) 42-43.

[73] Peeperkorn and Verouden (n 2) 47; this problem, known as the *cellophane fallacy*, was also addressed by the Commission in the Notice on Market Definition (n 63), para 19.

[74] Peeperkorn and Verouden (n 2) 46.

[75] Notice on Market Definition (n 63), para 20.

importance to demand substitutability,[76] but it may be taken into account in those situations 'in which its effects are equivalent to those of demand substitution in terms of effectiveness and immediacy'.[77] Supply substitutability was thoroughly analysed for instance in *Microsoft*. The Commission found that no supplier was able to switch to markets for operating systems or streaming media players easily and quickly enough, and thus concluded that supply-side substitution did not broaden neither of the considered relevant product markets.[78]

Defining the relevant product market in the software industry can be particularly precarious since many software firms operate on two-sided or *multi-sided markets*. That means that these firms act as platforms: in a two-sided market, they sell two different products to two groups of customers while recognizing that the demand for one product heavily depends on the demand for the second one and the other way around.[79] A typical example are video game producers such as Sony, Nintendo, or Microsoft. To succeed they need at the same time both enough consumers buying their consoles and enough developers writing games for the consoles.[80] A common strategy is then to subsidy the platform product—consoles in this case—which might be seen in one-sided markets as anti-competitive conduct. The relevant product market definition must take this behaviour into account. The SSNIP test which was designed for one-sided markets is virtually inapplicable to multi-sided markets in its traditional form as it leads to too narrow definition of the relevant market.[81] While the Commission seems aware of this and has refused

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[76] Rose and Bailey (n 54) 255.

[77] Notice on Market Definition (n 63), para 20.

[78] The correctness of the conclusion was confirmed by the General Court in *Microsoft* (General Court Decision) (n 66), paras 527-32.

[79] Lapo Filistrucchi and others, 'Market Definition in Two-Sided Markets: Theory and Practice' (2014) 10 Journal of Competition Law & Economics 296.

[80] O'Donoghue and Padilla (n 28) 139.

[81] Filistrucchi and others (n 79) 295, 338.

to carry out the SSNIP test in some cases,[82] it has not yet applied a specific multi-sided market formula to perform the SSNIP test.[83]

3.2.3 Geographic market definition

The definition of relevant market is not sufficient until the geographic area where the products are sold is not limited. According to the Notice on Market Definition, the relevant geographic market comprises the area (a) 'in which the undertakings concerned are involved in the supply and demand of products or services', (b) 'in which the conditions of competition are sufficiently homogeneous', and (c) 'which can be distinguished from neighbouring areas because the conditions of competition are appreciably different in those area[s]'.[84] The principles of product market definition apply in a similar fashion to the definition of geographic market. The geographic market, therefore, includes all regions where the producer faces the competitive constraints of demand substitutability and supply substitutability.[85]

Essentially, the aim is again to determine whether the undertaking could profitably impose a SSNIP in a particular geographic area. Based on evidence such as trade flows, market shares, and regional prices,[86] the Commission models the consumers' and competitors' reaction to the SSNIP. On the demand side, if the customers reacted by switching to obtain supplies outside the area in question in a short-term time frame, the relevant geographic market is wider.[87] The area is then being extended until the switch is not favourable for the customers and thus the SSNIP is profitable for the concerned producer.

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[82] For instance in *MasterCard* (Cases COMP/34.579, COMP/36.518, and COMP/38.580) Commission Decision of 19 December 2007, paras 270-77.

[83] Filistrucchi and others (n 79) 339.

[84] Notice on Market Definition (n 63), para 8.

[85] O'Donoghue and Padilla (n 28) 124.

[86] Notice on Market Definition (n 63), para 29; O'Donoghue and Padilla (n 28) 125.

[87] Rose and Bailey (n 54) 276.

Then, supply-side factors are considered. Compared to the product market definition where demand-side substitutability is seen as the main form of substitution, the relative importance of demand-side and supply-side substitution is probably more in balance in the context of geographic market definition.[88] The attention focuses on the readiness and willingness of suppliers in other geographic areas to swiftly commence supply their product to the area in question. The common investigated factors are the existence of regulatory barriers, substantial set-up costs, or limited access to distribution channels for the potential newcomer.[89] The cost of transporting products is frequently an important aspect when considering both the demand side and the supply side. Some goods are so expensive to transport in relation to their value that it would not be economic to attempt to buy or sell them on distant markets.[90]

Typically, in the technology cases that will be discussed later, the relevant geographic markets are found to be either worldwide—commonly in the large IT cases such as *Intel* or *Microsoft*—or nationwide—practically always in the telecommunications sector. The delimitations of the geographic market are rarely seriously disputed by the investigated undertakings.

3.3 Dominant position

3.3.1 General principles

As soon as the relevant market is delimited the next step is the assessment of the concerned undertaking's position on it. Only when a dominant position is established at the time of the alleged abuse can the anti-competitive conduct be considered contrary to Article 102. While undertakings holding a dominant

[88] Peeperkorn and Verouden (n 2) 52.

[89] Notice on Market Definition (n 63), para 30.

[90] Whish and Bailey (n 4) 40.

position bear a special responsibility imposed by Article 102, it is essential to keep in mind that dominance as such is in no way illegal itself.

The test for dominance established by the CJEU relies on the concept of the allegedly dominant undertaking's independence of the other participants in the market. In *United Brands* it ruled that dominance relates to a position of economic strength which enables the undertaking 'to prevent effective competition being maintained on the relevant market by giving it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers.'[91] Independence is therefore understood as a lack of effective competitive constraints exerted on the undertaking in question. When these competitive constraints are not sufficiently effective the undertaking is considered to enjoy *substantial market power*.[92]

The Commission defines market power as 'the power to influence market prices, output, innovation, the variety or quality of goods and services, or other parameters of competition on the market'.[93] Undertaking possessing substantial market power is able to charge prices significantly above the competitive level, besides other ways for instance by reducing its own output or causing its rivals to reduce their output.[94] Dominance is then established when the undertaking enjoys such substantial market power 'over a period of time'.[95]

3.3.2 Indicators of dominance

Since market power is not an absolute term but a matter of degree the Commission considers many indicators when assessing the market structure and the undertaking's potential dominance. These factors can be divided—

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[91] Case 27/76 *United Brands v Commission* EU:C:1978:22, [1978] ECR 207, para 65.

[92] Guidance Paper (n 45), para 10.

[93] DG Competition discussion paper on the application of Article 82 of the Treaty to exclusionary abuses [2005] (Discussion Paper), para 24.

[94] Ibid.

[95] Guidance Paper (n 45), para 10.

based on the subject imposing the competitive constraint—into three groups: (a) 'the market position of the dominant undertaking and its competitors', (b) 'barriers to expansion and entry', and (c) 'countervailing buying power'.[96]

(a) The market position of the dominant undertaking and its competitors

The starting point in determining whether an undertaking holds a dominant position is the assessment of competitive constraints imposed by the undertaking's actual competitors in the market. The most important indicator of the market structure in this assessment are market shares of the concerned undertaking and of its competitors. Normally, the Commission uses current market shares, however in some cases historic shares may be used, especially when the market shares have been volatile.[97] The values are then usually calculated on the basis of the undertakings' sales while '[a]s a rule of thumb, both volume sales and value sales provide useful information'.[98]

Especially in the early cases market shares served a central role in the assessment. In *Hoffmann-La Roche* the Court of Justice held that 'very large market shares are in themselves [...] evidence of the existence of a dominant position'.[99] Later in *AKZO* the Court specified that this applies in cases where market share of 50 % is found.[100] Although market shares cannot be assessed mechanically the existing case law allows some more generalisations about the importance of certain market share levels.[101] In general, very high levels, i.e. in excess of 70 %, raise a strong presumption of dominance. For instance, in *Intel* the Commission concluded that market shares between 70 and 80 % were a clear indication of dominance.[102] Large shares—i.e. between 50 and 70 %—raise a weaker presumption of

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[96] Ibid, para 12.

[97] Discussion Paper (n 93), para 30.

[98] Notice on Market Definition (n 63), paras 53-55.

[99] Case 85/76 *Hoffmann-La Roche v Commission* EU:C:1979:36, [1979] ECR 461, para 41.

[100] Case C-62/86 *AKZO Chemie v Commission* EU:C:1991:286, [1991] ECR I-3359, para 60.

[101] O'Donoghue and Padilla (n 28) 147.

[102] *Intel* (Case COMP/C-3/37.990) Commission Decision of 13 May 2009, paras 901, 912.

dominance, and shares between 40 and 50 % do not raise presumptions of either existence or absence of dominance and thus require a particularly close examination.[103] Especially in these cases it is relied on other indicators which will be discussed below.

The Commission's papers from 2005 and 2009 seem to attribute lower importance to market shares than the case law. According to the most up-to-date Guidance Paper, market shares are considered 'a useful first indication' rather than the beginning and the end of the analysis. It is also emphasised that 'the Commission will interpret market shares in the light of the relevant market conditions, and in particular of the dynamics of the market and of the extent to which products are differentiated'.[104] The presumption that a market share higher than 50 % constitutes dominance which was established in *AKZO* is no longer referred to. The only threshold mentioned in the paper is 40 % when it is suggested that a market share below this level means that dominance is not likely.[105] Even though a market share lower than 40 % still does not constitute any kind of 'safe harbour', the decisional practice knows only one case—*British Airways*—where dominance was established below this level.[106]

As mentioned above, the objective of this part of the assessment is to evaluate the competitive constraints imposed by the undertaking's actual competitors in the market. Therefore, besides the market share of the allegedly dominant undertaking the shares of its competitors must be taken into account as well. Where the concerned undertaking has a market share of 45 %, the conclusion would be very different, on one hand, in a case with two other competitors enjoying market shares of 25 % each and, on the other hand, in a market where no other player's share exceeds 10 %. After all, very low market shares of competitors were the reason for establishing dominance

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[103] O'Donoghue and Padilla (n 28) 147.

[104] Guidance Paper (n 45), para 13.

[105] Ibid, para 14.

[106] Although very slightly: at 39.7 %. See Case T-219/99 *British Airways v Commission* EU:T:2003:343, [2003] ECR II-5917, paras 210-25; Whish and Bailey (n 4) 193.

in the above-mentioned *British Airways*.[107] In general, the Commission has considered there to be a larger likelihood of dominance where it has found the difference in market shares between the concerned undertaking and its largest competitor to be higher than 20 %, especially where the gap has remained stable over a significant period of time.[108]

However, in assessing the competitive constraint imposed by rivals the Commission also must take into account, besides market shares, the degree of substitutability of the undertakings' products. Competitors with lower market shares can impose more significant constraint than those with higher shares if their products are better substitutable with products of the allegedly dominant undertaking.[109] That is the case especially when they face relatively low barriers to expansion, as will be further discussed below.

As the investigated undertakings in the prominent European ICT cases often create new markets for themselves their market shares are generally very high. This applies especially to software producers. The Commission found that in *Microsoft*,[110] *Google Shopping*,[111] or *Google Android*[112] the concerned undertakings enjoyed market shares of over 90 %. That is why once a relevant market is established the undertaking's dominant position is rarely disputed.

b) Barriers to entry and expansion

An assessment of competitive constraint imposed on the allegedly dominant undertaking by its current competitors does not provide the full picture of its

[107] *British Airways* (n 106), paras 210-11.

[108] O'Donoghue and Padilla (n 28) 150.

[109] Discussion Paper (n 93), para 33.

[110] *Microsoft* (Case COMP/C-3/37.792) Commission Decision of 24 March 2004, para 435.

[111] This case is sometimes referred to as *Google Search*. However, as the other two investigations Google is currently facing concern the company's internet search service as well, I find *Google Shopping* more suitable. *Google Shopping* (Case AT.39740) Commission Fact Sheet MEMO/17/1785 of 27 June 2017.

[112] *Google Android* (Case AT.40099) Commission Fact Sheet MEMO/16/1484 of 20 April 2016.

position in the market. Therefore, the Commission also assesses '[t]he potential impact of expansion by actual competitors or entry by potential competitors, including the threat of such expansion or entry'.[113] If such expansion or entry is 'likely, timely, and sufficient' the concerned undertaking would not dare to increase prices in fear of losing its market share. In that case the undertaking cannot be deemed dominant. However, the current and potential competitors may face several forms of barriers preventing them from such efficient entry or expansion.

Firstly, a frequent source of barriers to entry are legislation or administrative measures. If the law makes it impossible or difficult to enter the market it greatly contributes to the market power of the incumbent undertakings. The typical example are *state monopolies* which have often been found in the markets for telecom services, postal delivery, or the operation of railway infrastructure.[114] Similarly, the market entry is more exacting where it is subject to state authorization or where it is required to obtain a licence. The state also confers legal monopolies to holders of *intellectual property rights* which are arguably the most pervasive form of entry regulation imposed by the government.[115] In ICT, significant barriers to entry arising from patent ownership are typical for hardware producers and the Commission found them for instance in *Intel*.[116]

The second distinguishable type of barriers to entry and expansion are barriers of economic character. These can sometimes be so high that they may enable formation of a natural monopoly as described in chapter 2.1.2. A typical economic barrier are *economies of scale and scope*. Economies of scale arise where with increasing production the average unit costs are decreasing.[117] As a result, an undertaking with a high market share may enjoy

[113] Guidance Paper (n 45), para 16.

[114] O'Donoghue and Padilla (n 28) 155.

[115] Ibid 156.

[116] *Intel* (Commission Decision) (n 102), paras 856-58.

[117] Economies of scope then arise where such cost savings are due to increasing number of product types.

a significant economic advantage, as found for instance in *Intel*[118] or *Telefónica*.[119] They are not automatically considered a barrier to entry in themselves but may indicate it when combined with other factors.[120] In *Intel*, economies of scale were found to be a barrier to entry in combination with *sunk costs of entry*. Those occur where the entry to the market is very costly because a high proportion of the production costs are fixed costs, i.e. related to plant construction, research and development, or advertising.[121] Sunk costs of entry are also typical for the telecommunications sector where the dominant operators own the network infrastructure built by the governments before the sector was liberalised at the end of the 1990s.

A frequent economic barrier to entry and expansion in the markets for ICT are also *network effects*. Direct network effects—typical in the telecommunications sector[122]—arise when consumer's valuation of a product increases with rising number of users of the product.[123] Indirect network effects are characteristic of two-sided markets[124] which is often the case of markets for software products. For the undertaking's competitors to get ahead they need to succeed at both sides of the markets, usually with both consumers and software developers. In *Microsoft*, the undertaking's steadfast position in the market for operating systems meant that developers always primarily wrote applications compatible with Windows. That, in turn, attracted more consumers, creating self-enforcing dynamics.[125] Indirect network effects are also generally considered a significant barrier to entry in the current proceedings against Google. As the Commission puts it in *Google Android*,

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[118] *Intel* (Commission Decision) (n 102), para 866.

[119] *Telefónica* (Case COMP/38.784) Commission Decision of 4 July 2007, paras 226, 237.

[120] Miguel De la Mano, Renato Nazzini, and Hans Zenger, 'Article 102' in Jonathan Faull and Ali Nikpay (eds), *The EU Law of Competition* (OUP 2014) 371.

[121] *Intel* (Commission Decision) (n 102), para 878; Rose and Bailey (n 54) 771.

[122] For instance in *Telefónica* (Commission Decision) (n 119), para 228.

[123] De la Mano, Nazzini, and Zenger (n 120) 372.

[124] Described in more detail in chapter 3.2.2.

[125] *Microsoft* (Commission Decision) (n 110), paras 448-50.

‘the more consumers adopt an operating system, the more developers write apps for that system’,[126] or in *Google Shopping*, ‘the more consumers use a search engine, the more attractive it becomes to advertisers’.[127] Another notable barrier might be high *switching costs for customers* which are typical for instance in markets for operating systems. They were found in *Microsoft*[128] and are assumed in *Google Android* where the Commission claims that ‘Android users who wish to switch to other operating systems would face significant switching costs, such as losing their apps, data and contacts’.[129]

Characteristics of the allegedly dominant firm itself can be indicators of dominance as well. Typical examples of such characteristics are vertical integration, spare or excess capacity, brand recognition, or an established distribution and sales network.[130] Privileged access to essential inputs is another example and there is an on-going discussion that data are becoming such an essential input, for instance in *Google Shopping*.[131] High profitability is another attribute which is sometimes considered an evidence of dominance. First in *Microsoft* and then in *Intel*, the Commission implied that the concerned undertaking’s very high profit margin clearly indicates its substantial market power.[132]

Lastly, *conduct of the undertaking* in the market may pose a barrier to entry or expansion, for example where it has made significant investments which competitors would have to match.[133] Interestingly, abusive conduct itself may serve as an evidence of dominance as well simply because such behaviour would not be possible if the undertaking did not possess a dominant

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[126] *Google Android* (Commission Fact Sheet) (n 112).

[127] *Google Shopping* (Commission Fact Sheet) (n 111).

[128] *Microsoft* (Commission Decision) (n 110), para 463.

[129] *Google Android* (Commission Fact Sheet) (n 112).

[130] Guidance Paper (n 45), para 17; O'Donoghue and Padilla (n 28) 160-63.

[131] Niels, Jenkins, and Kavanagh (n 1) 471.

[132] *Microsoft* (Commission Decision) (n 110), para 464; *Intel* (Commission Decision) (n 102), para 880.

[133] Guidance Paper (n 45), para 17.

position. Even though this approach has its critics[134] abusive behaviour was presented as supportive evidence for example in *Intel*.[135]

As mentioned in the previous section, the allegedly dominant undertakings in the high-profile ICT cases are usually endowed with so high market shares that the conclusions on barriers to entry and expansion often serve as nothing but additional evidence. In other words, the barriers to entry and expansion in *Intel*, *Microsoft*, *Google Shopping*, or *Google Android* were found to be very high—especially barriers such as network effects play an important role—but dominance would likely be concluded even without them.

c) Countervailing buying power

Another source of possible competitive constraint are the undertaking's customers. Therefore, the Commission also takes into consideration buying power in the market to assess whether the concerned undertaking has a dominant position. Even an undertaking with a high market share may not be able to act independently of customers with sufficient bargaining strength.[136] The most important factors in assessing buying power are the concentration of customers in the relevant market and the ratio between the switching costs of the players on both sides of the market.[137]

The evidence of countervailing buying power—even though sometimes claimed by the investigated undertakings in their defence[138]—is of a relatively low significance to the assessment in the examined ICT cases.

[134] For instance Whish and Bailey (n 4) 196 or O'Donoghue and Padilla (n 28) 166.

[135] *Intel* (Commission Decision) (n 102), para 910.

[136] Guidance Paper (n 45), para 18.

[137] O'Donoghue and Padilla (n 28) 167-68.

[138] For example in *Intel* (Commission Decision) (n 102), para 885.

3.3.3 Single and collective dominance

So far, I have focused on cases of dominance on the part of one undertaking, however, dominant position can be held by two or more undertakings as well. In the case of *collective dominance*, the undertakings concerned must 'from an economic point of view [...] present themselves or act together on a particular market as a collective entity'.[139] Being collectively dominant as such is not illegal any more than being a single dominant undertaking. When collective dominance is established, each undertaking faces the responsibility not to abuse the dominant position on its own. In other words, 'undertakings occupying a joint dominant position may engage in [either] joint or individual abusive conduct'.[140]

Collusion is, of course, illegal under Article 101 TFEU but tacit coordination, which would otherwise be in compliance with Article 101, may result in an oligopolistic structure of the market where the undertakings would be subject to duties under Article 102. Such coordination takes most often forms of direct coordination of prices in order to keep them above the competitive level, coordination aimed at limiting production, or coordination by dividing the market between themselves, for instance by geographic area or other customer characteristics.[141] In *Irish Sugar* the General Court ruled that, besides oligopolistic markets, joint dominance may also be established between undertakings in a vertical relationship,[142] breaking the previous premise that the undertakings must be active on the same market.[143]

None of the relevant cases from the technology sector has been an example of collective dominance, therefore it is not necessary to inquire into the concept in more detail.

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[139] Joined cases C-395/96 P and C-396/96 P *Compagnie Maritime Belge v Commission* EU:C:2000:132, [2000] ECR I-1365, para 36.

[140] Case T-228/97 *Irish Sugar v Commission* EU:T:1999:246, [1999] ECR II-2969, para 66.

[141] Discussion Paper (n 93), para 47.

[142] *Irish Sugar* (n 140), para 61.

[143] De la Mano, Nazzini, and Zenger (n 120) 381.

3.3.4 Dominance within substantial part of the internal market

Once the existence of dominant position in the relevant market is established, Article 102 requires one more condition. It is only applicable where dominant position is held 'within the internal market or in a substantial part of it'. For the purpose of determining whether the territory is large enough, it has been specified that the Commission must consider 'the pattern and volume of the production and consumption of the said product as well as the habits and economic opportunities of vendors and purchasers'.[144] Therefore, not only geographical dimension matters, and, effectively, even small volumes of trade may be considered substantial.[145] The results of the test of substantiality widely differ case by case. The CJEU ruled that each Member State would most likely be considered a substantial part of the internal market.[146] However, there were also numerous cases where the test was satisfied in relation to a single port or airport due to the volume of trade passing through it.[147]

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[144] Joined cases 40 to 48, 50, 54 to 56, 111, 113 and 114/73 *Suiker Unie v Commission* EU:C:1975:174, [1975] ECR 1663, para 371.

[145] O'Donoghue and Padilla (n 28) 213.

[146] *Irish Sugar* (n 140), para 99.

[147] Numerous examples cited in Whish and Bailey (n 4) 200.

4 Abuse and its varieties in the ICT industry

4.1 ICT industry

As the name suggests, this thesis pays particular attention to cases in the industry of information and communication technologies. Already in the previous chapter it was being pointed out which of the discussed aspects have been crucial in the best-known ICT cases. This approach will be further developed in the following chapter dealing with the individual forms of abuse. Therefore, I find it useful to briefly explain in this place what does the term ICT industry encompass and what are its characteristics in relation to competition law.

The technology sector comprises a relatively quickly growing number of markets. Undertakings investigated for Article 102 infringements typically include companies doing business in the markets for telecommunications networks and services, computer hardware products, computer software products, and internet services. Most of these industries share two common features which make them distinctive and particularly attractive for competition lawyers.

Firstly, the ICT markets are often *new economy* markets.[148] Such markets are characterised by emphasis on product innovation and by fast succession of technological changes. The technically complex products have relatively short life cycles and there is large need for product compatibility and interoperability.[149] Rather than on the market, the competition takes place for the market. Consequently, in such a market the winner often takes all and goes on to dominate the whole market. Moreover, especially markets for computer software and internet services are characterised by strong

[148] This characteristic naturally applies less and less over time as the markets are establishing and stabilising. That is why markets for telecommunications networks and services are characterised by different types of abusive conduct than the fast-growing markets for internet services.

[149] De la Mano, Nazzini, and Zenger (n 120) 386.

economies of scale and network effects.[150] As a result of this complexity and novelty of the cases, the decisions often raise controversies and many authors argue that traditional methods of measuring market power or assessing the allegedly abusive conduct are not suitable for these markets.[151]

The second notable characteristic—and the one thanks to which these cases are known to the public—are the large fines imposed by the competition authorities. The European Commission may award a fine of up to 10 % of the undertaking's total turnover in the preceding business year for an Article 102 infringement.[152] The size of some of the investigated technology firms means that the fines in their cases account by far for the largest penalties ever imposed by the Commission. After all, Microsoft, Intel, and Alphabet—the parent company of Google—belong among companies with the largest turnover and market capitalization in the world. In 2004, Microsoft was fined € 497 million,[153] and 4 years later additional € 860 million,[154] in the Windows Media Player case. In 2013, the Commission punished the same company with a € 561 million fine in the Internet Explorer case.[155] In 2009, Intel was the subject to a record-breaking penalty of € 1.06 billion.[156] In 2017, the Commission went on with pushing the boundaries as it fined Google € 2.42 billion in *Google Shopping*.[157] The potential penalty in *Google Android* is expected to top even that amount.[158] The fines in the telecommunications sector are significantly lower but still higher than in other

[150] Posner (n 12) 388-89.

[151] For instance De la Mano, Nazzini, and Zenger (n 120) 386.

[152] Regulation 1/2003 (n 56), art 23(2).

[153] *Microsoft* (Commission Decision) (n 110), art 3.

[154] Case T-167/08 *Microsoft v Commission* EU:T:2012:323, art 1.

[155] *Microsoft (Tying)* (Case COMP/C-3/39.530) Commission Decision on the imposition of a fine of 6 March 2013, art 2.

[156] *Intel* (Commission Decision) (n 102), art 2, decision not yet in force.

[157] *Google Shopping* (Commission Fact Sheet) (n 111), decision not yet in force.

[158] Foo Yun Chee, 'Exclusive: EU Considers Record Fine As Panel Checks Google Android Case - Sources' (*Reuters*, 5 July 2017) <https://reut.rs/2upBFrT> accessed 10 October 2017.

industries. Telefónica was for instance fined € 152 million in 2007[159] and Telekomunikacja Polska was ordered to pay € 127.5 million in 2011.[160]

4.2 The concept of abuse

4.2.1 General principles

The scope of conducts prohibited under Article 102 is so wide that the case law has not provided a universal definition of abuse which would satisfyingly encompass all of them. The CJEU, however, formulated the definition of exclusionary abuse—arguably the widest group of anti-competitive practices—in *Hoffmann-La Roche*, describing it as conduct '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'.[161] In other words, the Court established a principle of *normal competition* stating that methods which are 'abnormal' are abusive if they have detrimental effect on competition. An alternative formulation of the same principle is the concept of *competition on the merits* which was defined as competition on the basis of price, choice, quality, and innovation.[162]

Both of these concepts are uncomfortably vague, leaving the Commission an open door to identify new forms of abusive conduct when necessary.[163] Nevertheless, they are important for they underline the need to

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[159] *Telefónica* (Commission Decision) (n 119), art 2.

[160] *Telekomunikacja Polska* (Case COMP/39.525) Commission Decision of 22 June 2011, art 2.

[161] *Hoffmann-La Roche* (n 99), para 91.

[162] Guidance Paper (n 45), para 6.

[163] Furthermore, as mentioned above, the described principles only cover exclusionary abuses, as opposed to exploitative abuses which are prohibited even though they do not necessarily have an adverse effect on competition. This only highlights the practical impossibility of formulating an all-encompassing definition of abuse. However, defining the principles of exclusionary abuses is sufficient here as the thesis only deals with those.

analyse the effect of the concerned behaviour on competition. Especially in recent years the emphasis on finding detrimental effect on competition has been rising, among competition lawyers and with increasing frequency in case law as well.[164] The Commission has accepted the view that it is generally necessary to establish *anti-competitive effects* which can harm consumers. Therefore, it investigates whether *anti-competitive foreclosure*—a situation where effective competition is hampered or eliminated due to the dominant undertaking's behaviour—exists in the market.[165]

The emphasis on consumer harm has also been accepted by the CJEU which expanded the above *Hoffmann-La Roche* definition of abuse, for instance in *Post Danmark I*, by the phrase 'to the detriment of consumers'.[166] No direct proof of consumer harm is required but the harm is usually derived indirectly from the adverse impact of the conduct on an effective competition structure.[167] This principle thereby designates consumers as the supposed ultimate benefactors of the regulation—which was discussed in chapter 2.4—and serves as an important guidance in the assessment whether the behaviour is abusive or not.

Regarding anti-competitive effects, it is not necessary to find evidence of actual effects as that would inevitably undermine the effectiveness of Article 102.[168] In *TeliaSonera*, the CJEU ruled that 'it is sufficient to demonstrate that there is an anti-competitive effect which may potentially exclude competitors who are at least as efficient as the dominant undertaking'.[169] The Commission specified in the Guidance Paper that it is

[164] Rose and Bailey (n 54) 784; the growing importance of the effects-based approach is further discussed in chapter 5.2.

[165] Guidance Paper (n 45), para 19.

[166] Case C-209/10 *Post Danmark v Konkurrencerådet* EU:C:2012:172 (Post Danmark I), para 24; De la Mano, Nazzini, and Zenger (n 120) 388.

[167] For instance already in Case 6/72 *Europemballage and Continental Can v Commission* EU:C:1973:22, [1973] ECR 215, para 26.

[168] Rose and Bailey (n 54) 788.

[169] *TeliaSonera* (n 47), para 64.

looking for evidence of conduct which is actually or 'likely' leading to anti-competitive foreclosure.[170]

At the same time the Commission is under no obligation to establish the existence of any *anti-competitive intent* on the part of the dominant undertaking since in the eyes of EU law abuse is an objective concept.[171] In other words, a dominant undertaking has 'a special responsibility not to allow its conduct to impair genuine undistorted competition on the [internal] market'.[172]

Lastly, to be applicable, Article 102 also requires the abusive behaviour to be capable of *affecting trade between Member States*. It has been established that it is not necessary to demonstrate that the conduct had an actual effect on the trade but it is sufficient to find that the conduct is capable of having such an effect. Specifically, the CJEU ruled that 'it must be possible to foresee with a sufficient degree of probability and on the basis of objective factors of law or fact that it may have an influence, direct or indirect, actual or potential, on the pattern of trade between Member States'.[173] Detailed descriptions of what kind of abusive behaviour is considered to be capable of causing such an effect is then provided in the Commission's guidelines.[174]

4.2.2 Defences

The European Commission essentially adopts a two-step approach in the assessment of the allegedly abusive conduct. In the first step, it is examining whether the conduct is likely to restrict competition and harm consumers as described above. In the second step, it is examining claims put forward by the

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[170] Guidance Paper (n 45), para 20; Discussion Paper (n 93), para 55.

[171] Case C-549/10 P *Tomra Systems v Commission* EU:C:2012:221, paras 20-21; Rose and Bailey (n 54) 787.

[172] For the first time in Case 322/81 *Michelin v Commission* EU:C:1983:313, [1983] ECR 3461, para 57.

[173] Case C-250/92 *Gøttrup-Klim v DLG* EU:C:1994:413, [1994] ECR I-5641, para 54.

[174] Commission notice - Guidelines on the effect on trade concept contained in Articles 81 and 82 of the Treaty [2004] OJ C 101/81 (Guidelines on the Effect on Trade Concept).

dominant undertaking that its conduct is justified.[175] The undertaking may do so either by 'demonstrating that its conduct is objectively necessary' or by 'demonstrating that its conduct produces substantial efficiencies which outweigh any anticompetitive effects on consumers', and bears the burden of proof.[176]

The first possible defence is, therefore, *objective necessity*. The dominant undertaking may argue that an apparently anti-competitive conduct is in fact justified, provided that the grounds relied on are more than simply the commercial advantage of the undertaking itself.[177] Exclusionary conduct may be considered objectively necessary for instance for health or safety—or, in exceptional cases, for technical or commercial—reasons relating to the product in question.[178]

The second possible defence is the *efficiency defence*. It is made out when the anti-competitive effect is counterbalanced or outweighed by advantages in terms of efficiencies which also benefit consumers.[179] Those can arise for instance due to economies of scale and scope. The efficiency defence differs from objective necessity because it requires balancing between the negative effects on competition of the conduct and its benefits. The Guidance Paper requires four cumulative conditions to be fulfilled for the efficiencies to be accepted: (a) the efficiencies have been realised as a result of the conduct, (b) the conduct is indispensable to the realisation of those efficiencies, (c) the efficiencies outweigh any negative effects on competition and consumer welfare, and (d) the conduct does not eliminate effective competition.[180]

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[175] This two-step approach has been criticised for being artificial since it essentially admits that some abusive behaviour is acceptable instead of classifying this behaviour as not abusive at all. See Case C-53/03 *Syfait v GlaxoSmithKline* EU:C:2004:673, [2005] ECR I-4609, Opinion of AG Jacobs, para 72.

[176] Guidance Paper (n 45), para 28.

[177] *United Brands* (n 91), para 189; Rose and Bailey (n 54) 790-91.

[178] Guidance Paper (n 45), para 29; Case 311/84 *CBEM v CLT and IPB* EU:C:1985:394, [1985] ECR 3261, para 26.

[179] *TeliaSonera* (n 47), para 76.

[180] Guidance Paper (n 45), para 30.

It is noteworthy that despite general recognition of defences in the case law, there are almost no reported cases in which they have actually been accepted by courts and competition authorities.[181] They have played some role mainly in cases related to the technology sector but not in others.[182] Some examples of the defences and the reasons why they were rejected, will be demonstrated on the relevant ICT cases in the following subchapters.

4.2.3 Forms of abuse

There is no universal way to classify anti-competitive practices. Article 102 itself provides an illustrative list of four groups of abusive conducts. Even though the CJEU ruled that the list is not exhaustive, it is also difficult to think of a unilateral conduct which would not be covered by the TFEU's broad definitions.[183]

Article 102(a) defines exploitative abuse as abuse consisting in 'directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions'. Those are cases of direct exploitation of customers, either by demanding excessive prices, which bear no reasonable relation to the economic value of the product supplied, or by imposing unfair contractual terms and conditions.[184] None of the significant cases from the technology sector has been an example of an exploitative abuse, therefore it is not necessary to inquire into these practices any further.

Article 102(b) defines exclusionary abuse as abuse consisting in 'limiting production, markets or technical development to the prejudice of consumers'. The formulation highlights two aspects which need to be found in a conduct to be considered exclusionary: firstly, the conduct results in the limitation of production or innovation of either the dominant undertaking or

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[181] O'Donoghue and Padilla (n 28) 287.

[182] Hans W. Friederiszick and Linda Gratz, 'Hidden Efficiencies: On the Relevance of Business Justifications in Abuse of Dominance Cases' (2015) 11 Journal of Competition Law & Economics 700.

[183] *Continental Can* (n 167), para 26.

[184] Rose and Bailey (n 54) 791.

of its competitors and, secondly, this conduct is to the detriment of the consumers.[185] The consequence of such an abuse is then a likely impairment of effective competition either by marginalising or eliminating existing competitors or by raising barriers to entry for potential new competitors.[186] As mentioned above, exclusionary abuses are the widest and the most discussed group of anti-competitive practices, and include conducts such as exclusivity agreements, rebates, tying, bundling, refusal to supply, predatory pricing, margin squeeze, or price discrimination. Exclusionary practices are also the explicit focus of the Commission's Discussion Paper and Guidance Paper.

Some of the practices listed above—for instance refusal to supply, tying, or price discrimination—can be both exploitative and exclusionary. And while Article 102(c) also defines discriminatory abuse and Article 102(d) defines tying abuse, it is widely accepted that all abuses can be classified as either exploitative or exclusionary.[187] Sometimes pricing practices—such as different exploitative practices, rebates, predatory pricing, price discrimination, or margin squeeze—and non-pricing practices—such as exclusive dealing, tying, or refusal to supply—are primarily distinguished.[188]

It is clear that several exclusionary conducts are predominant in the ICT sector. The relatively commonly occurring anti-competitive practices in the industry will be introduced one after another in the following subchapters. The prominent decisions from the technology sector relating to those practices will be analysed in more detail.

One specific group of anti-competitive practices that is worthy of notice here are infringements in relation to licensing of intellectual property rights. Well known are two investigations in which the Commission concluded that Motorola and Samsung abusively used certain of its standard

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[185] O'Donoghue and Padilla (n 28) 241.

[186] Rose and Bailey (n 54) 791.

[187] De la Mano, Nazzini, and Zenger (n 120) 387 or Rose and Bailey (n 54) 791.

[188] For instance in Whish and Bailey (n 4).

essential patents to distort competition in the market for mobile devices.[189] Standard essential patents were also the subject of a dispute between Huawei and ZTE.[190] This category of anti-competitive practices is governed by specific rules whose analysis unfortunately goes beyond the scope of this thesis. At the same time, it is very difficult to draw conclusions from these cases as even the Commission admits there is limited case law in the area.[191]

4.3 Exclusive dealing

4.3.1 General principles

A dominant undertaking may try to foreclose its competitors by hindering them from selling to customers by applying exclusive purchasing obligations or exclusivity rebates, together referred to as exclusive dealing.[192]

Exclusive purchasing agreements are not much unlike vertical agreements prohibited under Article 101 TFEU. The difference is that under Article 102 only the dominant undertaking infringes the rules.[193] These vertical agreements require the buyer to purchase all or most—that is 80 % or more, as ruled in *Intel*[194]—of its requirements only from the dominant supplier. An example of a potentially significant case is the Commission's current investigation of Qualcomm, the world's largest supplier of 3G and 4G baseband chipsets, for paying 'significant amounts to a major smartphone and tablet manufacturer on condition that it exclusively use Qualcomm baseband chipsets'.[195] Similarly, Google is currently investigated for granting financial

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[189] *Motorola* (Case AT.39985) Commission Decision of 29 April 2014; *Samsung* (Case AT.39939) Commission Decision of 29 April 2014.

[190] Case C-170/13 *Huawei v ZTE* EU:C:2015:477.

[191] *Motorola* (n 189), para 561.

[192] Guidance Paper (n 45), para 32.

[193] Whish and Bailey (n 4) 722-23.

[194] Case T-286/09 *Intel v Commission* EU:T:2014:547, para 135.

[195] *Qualcomm* (Cases AT.39711 and AT.40220) Commission Press Release IP/15/6271 of 8 December 2015; the other party to the agreement is most likely Apple, as claimed by some media outlets, for instance Guy Daniels, 'First the FTC, Now Apple: Is Qualcomm's

incentives to smartphone and tablet manufacturers on condition that they exclusively pre-install Google Search on their devices.[196]

Another type of exclusivity deals are *conditional rebates*. Rebates are generally granted to buyers to reward them for their purchasing behaviour. Usually the customer is given a rebate if its purchases over a defined period of time exceed a certain threshold.[197] Already since *Hoffmann-La Roche* the case law has differentiated its approach to two basic types of rebates: unconditional *quantity rebates* and conditional *exclusivity rebates*.[198] In *Intel*, the General Court describes quantity rebates as 'linked solely to the volume of purchases made from [the dominant] undertaking', and as such considers them harmless even when offered by a dominant undertaking.[199] On the other hand, exclusivity rebates are rebates 'conditional on the customer's obtaining all or most of its requirements from the [dominant] undertaking' and the General Court deems them generally incompatible with the objective of undistorted competition.[200] The General Court also established a third, residual, category of rebates where it is necessary to consider all circumstances of the case before concluding whether the conduct constitutes an abuse of dominant position or not.[201]

The above described attitude towards conditional rebates is a textbook example of form-based approach to abuse, which presumes that there are *per se* illegal practices whose effects on competition are not required to be assessed. This attitude has, however, undergone a significant change which well represents the shift towards a more effects-based approach. In its relatively progressive Guidance Paper, the Commission acknowledges that

Business Model Under Threat?' (*Telecom TV*, 23 January 2017) <http://bit.ly/qualcommapple> accessed 31 October 2017.

196 *Google Android* (Commission Fact Sheet) (n 112).

197 Guidance Paper (n 45), para 37.

198 *Hoffmann-La Roche* (n 99), para 90; in this decision exclusivity rebates are labelled as 'fidelity rebates'.

199 *Intel* (General Court Decision) (n 194), para 75.

200 Ibid, paras 76-77.

201 Ibid, para 78.

conditional rebates are generally not an uncommon business practice. However, when granted by a dominant undertaking, they can have foreclosure effects similar to exclusive purchasing obligations.[202] That applies especially to retroactive rebates, where the rebate is eventually granted on all purchases—even on those made below the set threshold, and not only on those made above it—, as they may make it less attractive to customers to switch even small amounts of demand to an alternative supplier.[203]

The Commission thus lays out the *as-efficient competitor* (AEC) test to assess the competitive implications of conditional rebates. The test lies in the investigation 'whether the rebate system is capable of hindering expansion or entry even by competitors that are equally efficient by making it more difficult for them to supply part of the [customers'] requirements'.[204] The AEC is thus a hypothetical competitor having the same costs as the dominant undertaking. According to the test, a dominant firm is said to cause a foreclosure when the price, that the AEC would have to offer to compensate the customer for his loss of the conditional rebate, is below the dominant undertaking's own *average avoidable costs*.[205] Once the Commission concludes that these rebates are capable of causing anti-competitive foreclosure, it will be assessed whether there are efficiencies outweighing the negative effects.[206]

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[202] Guidance Paper (n 45), para 37.

[203] Ibid, paras 37, 40.

[204] Ibid, para 41.

[205] Average avoidable cost is a concept used by the Commission, however, in most cases it amounts to the much better known average variable cost. Average variable costs are the costs that change in proportion to quantity of good produced—as opposed to fixed costs—, divided by the quantity of output produced. See Guidance Paper (n 45), para 44; De la Mano, Nazzini, and Zenger (n 120) 433-35.

[206] Guidance Paper (n 45), para 46.

4.3.2 Intel

Intel consistently held very high market shares of over 70 % in the worldwide market for x86 computer processors.[207] The market was characterised by very high barriers to entry and expansion, especially high sunk costs, resulting in a market structure where Intel practically faced competition only from one undertaking, AMD.[208] Based on these facts, the Commission concluded Intel held a dominant position in the relevant market.[209]

The Commission identified two kinds of anti-competitive practices in Intel's behaviour. Firstly, it granted exclusivity rebates on its processors to four major computer manufacturers—also called original equipment manufacturers or OEMs. Those were conditional on these manufacturers obtaining all or majority of their processors from Intel. The undertaking also granted rebates to Europe's largest computer retailer conditioned on it selling exclusively Intel-based computers.[210] Secondly, Intel made direct payments to three major computer OEMs to delay, cancel, or otherwise restrict the commercialisation of the planned AMD-based products.[211]

Regarding the rebates, the Commission's decision was based on both form-based and effects-based analysis. While the Commission emphasised that exclusivity rebates are by their very nature capable of restricting competition, it nevertheless carried out an effects analysis in the form of an AEC test. The test led to the conclusion that an AEC would have had to offer prices which would not have been viable and that, accordingly, the rebate scheme was capable of having or likely to have anti-competitive foreclosure effects.[212] Intel appealed the decision on several grounds, including that the

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[207] *Intel* (Commission Decision) (n 102), paras 835-36.

[208] Ibid, paras 852, 881, 882.

[209] Ibid, para 912.

[210] Ibid, para 1001.

[211] Ibid, para 1678. This practice is considered a *naked restriction* whose character can apparently only raise obstacles to competition and thus a detailed assessment of its effects on competition is not necessary.

[212] Ibid, paras 1574-75.

effects analysis was flawed.[213] The General Court held that in the case of exclusivity rebates it is not necessary to establish anti-competitive effects, as these rebates are *per se* capable of restricting competition.[214] This ruling was, nevertheless, set aside by the Court of Justice on appeal in 2017 and referred back to the General Court.[215] In the judgment, the Court of Justice does not completely refuse the form-based approach and still presumes exclusivity rebates to have anti-competitive effects.[216] However, it holds that where supportive evidence is put forward of absence of such effects, the Commission is required to conduct an AEC test.[217] And because the Commission did carry out the test, the General Court was required to examine all of Intel's arguments concerning that test.[218] The successful appeal will leave the case unresolved for several more years. Formally, this judgment is not a final victory for the effects-based approach to exclusivity rebates, but since the Commission committed itself in the Guidance Paper to carefully assess the anti-competitive effects of such practices, it is likely that the effects analysis will have an essential role in future cases.

The Commission also examined several defences submitted by Intel. Besides claiming that its rebate scheme merely responded to competition by AMD, Intel also argued that it brought several types of efficiencies, such as lower prices for consumers, economies of scale, or production efficiencies. The Commission rejected these defences, claiming that none of these provided justification for the conduct in question.[219] In conclusion, it was ruled that Intel's anti-competitive conduct resulted in a reduction of consumer

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[213] *Intel* (General Court Decision) (n 194), para 140; perhaps most importantly, Intel argued that its practices were not capable of restricting competition since AMD's market share was rapidly growing during the relevant period, see para 185.

[214] Ibid, paras 87, 151.

[215] Case C-413/14 P *Intel v Commission* EU:C:2017:632.

[216] Ibid, para 137.

[217] Ibid, paras 138-39.

[218] Ibid, paras 142-44.

[219] *Intel* (Commission Decision) (n 102), paras 1625-39.

choice and in lower incentives to innovate.[220] It was also found that the examined practices were part of a single continuous strategy aimed at foreclosing AMD.[221]

4.4 Tying and bundling

4.4.1 General principles

Tying and bundling are common business practices which consist in the selling of two or more products together. While there is no universal definition of the various practices, three basic forms are usually distinguished.

Firstly, *tying* refers to 'situations where customers that purchase one product (the tying product) are required also to purchase another product from the dominant undertaking (the tied product)'.[222] Tying can be either technical—where the tying product is designed in such a way that it only works properly with the tied product—or contractual—where the customer commits to purchase the tied product along with the tying product.[223]

Secondly, *pure bundling* describes the situation where the customer can only purchase the two products together. That is, unlike in the case of tying, not even the tied product can be purchased individually. And, thirdly, *mixed bundling*—also referred to as a multi-product rebate—occurs when 'the products are also made available separately, but the sum of the prices when sold separately is higher than the bundled price'.[224]

In its Guidance Paper, the Commission lays out an effect-based approach to tying and bundling. It does not presume the practices to cause competitive harm and requires evidence of likely or actual anti-competitive

[220] Ibid, para 1616.

[221] Ibid, para 1747.

[222] Guidance Paper (n 45), para 48.

[223] Ibid.

[224] Ibid.

foreclosure to conclude an Article 102 infringement.[225] Based on the framework established in *Microsoft*, the Commission will normally take action when (a) the tying and the tied products are two distinct products, (b) the undertaking concerned coerces customers to obtain the tying product together with the tied product, and (c) the tying practice is likely to lead to anti-competitive foreclosure.[226] Distinctiveness of the products depends on the independence of customer demand. Two products are considered distinct when a substantial number of customers would purchase the tying product without also purchasing the tied product from the same supplier.[227]

Tying or bundling may lead to anti-competitive foreclosure in the tied market, the tying market, or both of them. Typically, however, the concerned undertaking holds a dominant position in the tying market and the Commission investigates the foreclosure of as-efficient competitors in the tied market. Due to the low number of tying cases resolved by the Commission and the CJEU so far, there is no universal framework to establish foreclosure, and the authorities have come with relatively dissimilar arguments in each of the cases.[228]

Even though generally quite rare thus far,[229] tying and bundling appear to be relatively pervasive abusive practices among the largest IT companies. Microsoft was investigated and penalized in two separate cases for tying two of it applications with its Windows operating system. The Commission has also been probing Google for practices some of which more or less resemble tying. The elementary aspects of these cases will be discussed below.

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[225] Ibid, paras 49, 52.

[226] *Microsoft* (General Court Decision) (n 66), para 842; also see Guidance Paper (n 45), para 50.

[227] Guidance Paper (n 45), para 51.

[228] De la Mano, Nazzini, and Zenger (n 120) 447-50.

[229] O'Donoghue and Padilla (n 28) 249.

4.4.2 Microsoft

The first case against Microsoft which concerned its Windows Media Player (WMP) is arguably one of the landmark cases of EU competition law. Thanks to Microsoft's market share of over 90 % for most of the period of the infringement and to strong network effects, the Commission concluded Microsoft held 'an overwhelmingly dominant position' in the worldwide market for client PC operating systems.[230]

The Commission found Microsoft to have infringed Article 102, firstly, by tying WMP with its Windows operating system and, secondly, by refusing to supply interoperability information to its competitors. Here I will focus on the first infringement, the second one will be discussed in chapter 4.6.2.

According to the framework outlined above, the Commission first assessed product distinctiveness. It was found that operating systems and media players were separate products since there was separate demand for and supply of media players.[231] The General Court confirmed that the Commission did not need to consider whether there was separate demand for operating systems (tying product) without media players (tied product) to determine whether operating systems and media players were separate products.[232]

Subsequently, the Commission went on to examine whether the customers were coerced to obtain the media player simultaneously with the operating system. It was found that Microsoft did not afford customers a choice as to whether to acquire Windows without WMP.[233] Additionally, if WMP was removed, other parts of the operating system would not function properly or at all.[234] The General Court ruled that Microsoft's counter-arguments that customers pay nothing extra for the additional media

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[230] *Microsoft* (Commission Decision) (n 110), paras 435, 450.

[231] Ibid, paras 342, 425; *Microsoft* (General Court Decision) (n 66), para 925.

[232] *Microsoft* (General Court Decision) (n 66), paras 917-22.

[233] *Microsoft* (Commission Decision) (n 110), para 834.

[234] Ibid, para 829.

functionality, that they are not obliged to use that functionality, and that they are not prevented from installing other media players, were irrelevant.[235]

The Commission stated that while in classical tying cases the foreclosure effects were demonstrated by the practice of tying itself, the specifics of this case required an analysis to assess the potential effects.[236] Firstly, it found that alternative distribution channels did not enable rival media players to match the level of market penetration of WMP which was pre-installed on client PCs worldwide.[237] Secondly, the Commission found that the WMP's integration into Windows caused indirect network effects which incentivised content providers to create WMP-compatible content and software developers to primarily write applications for WMP, further strengthening its market power.[238] Finally, it was ascertained that market developments were consistently tipping in favour of WMP to the detriment of its main competitors.[239] Based on this analysis, the Commission concluded that 'Microsoft uses Windows as a distribution channel to anti-competitively ensure for itself a significant competition advantage in the media player market', and that '[t]here is therefore a reasonable likelihood that tying WMP with Windows will lead to a lessening of competition'.[240]

Objective necessities and efficiencies are a frequent consideration as they underpin the majority of ties.[241] In its appeal, Microsoft claimed that the tying of WMP with Windows was objectively justified as it was 'indispensable in order for software developers [...] to be able to continue to benefit from the significant advantages offered by the 'stable and well-defined' Windows platform'.[242] The General Court, however, upheld the

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[235] *Microsoft* (General Court Decision) (n 66), paras 960-75.

[236] *Microsoft* (Commission Decision) (n 110), para 841.

[237] Ibid, para 877.

[238] Ibid, paras 879-96.

[239] Ibid, para 944.

[240] Ibid, paras 979, 984.

[241] O'Donoghue and Padilla (n 28) 250.

[242] *Microsoft* (General Court Decision) (n 66), para 1146.

Commission's conclusion that the benefits presented by Microsoft could be achieved in the absence of tying WMP with Windows.[243]

As a remedy, the Commission ordered Microsoft to offer a version of Windows which does not include WMP.[244] The Commission also fined Microsoft € 497 million in total for both abuses.[245] The substantial part of the decision was upheld by the General Court in 2007 and was not further appealed.

In a separate case—labelled as *Microsoft (Tying)* by the Commission—Microsoft was investigated for tying its web browser Internet Explorer with Windows. Following a very similar line of arguments as in *Microsoft*, the Commission took the preliminary view that (a) Microsoft held a dominant position on the market for client PC operating systems, (b) Internet Explorer and Windows were separate products, (c) computer manufacturers and end users could not obtain Windows without Internet Explorer, and that (d) the tying was liable to foreclose competition between web browsers.[246] To alleviate the Commission's concerns, Microsoft offered several commitments in 2009. Most importantly, it committed to distribute 'a choice screen software update' to Windows users who have Internet Explorer set as their default web browser. This choice screen would give users an opportunity to choose whether to install a competing web browser and, if so, which one.[247] However, in 2012 the Commission re-opened the investigation since Microsoft negligently failed to comply with the commitments by not displaying the choice screen to millions of Windows 7 users for 14 months, and was thus fined € 561 million.[248]

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[243] *Microsoft* (Commission Decision) (n 110), para 970; *Microsoft* (General Court Decision) (n 66), para 1149.

[244] *Microsoft* (Commission Decision) (n 110), art 6(a).

[245] Ibid, art 3.

[246] *Microsoft (Tying)* (Case COMP/C-3/39.530) Commission Decision of 16 December 2009, para 36.

[247] Ibid, para 60.

[248] *Microsoft (Tying)* (Commission Fine Decision) (n 155), paras 38, 46, 54, 64, art 2.

4.4.3 Google

Google is currently the subject of three different abuse of dominance investigations by the European Commission. Or—to be precise—two investigations, as the decision in one of them, *Google Shopping*, was issued in June 2017 when the Commission imposed an unprecedented fine of € 2.42 billion on the company.[249] Nevertheless, Google has already appealed the decision which will thus be reviewed by the General Court.[250]

The Commission found that Google has held market shares exceeding 90 % in most EEA national markets for general internet search and thus has been dominant. It was concluded that Google has abused this dominance by giving its Google Shopping service an illegal advantage in the market for comparison shopping. Google has allegedly systematically given prominent placement at the top of the search results to its own comparison shopping service while demoting other such services. As a result, the traffic to Google's comparison service has dramatically increased whilst the traffic to rival services has equally significantly decreased. This has, the Commission concludes, deprived consumers of the benefits of competition on the merits.[251]

Interestingly, even though bearing some similarities, the Commission does not describe the practice as tying, bundling, or any other recognized abusive conduct, nor does it consider Google's search service an essential facility,[252] thus possibly establishing a *sui generis* abuse of 'favouring own services' instead. The test for such a practice—similarly as in the case of predatory pricing—might then lie in proving that Google

[249] *Google Shopping* (Commission Fact Sheet) (n 111).

[250] Foo Yun Chee, 'Google Challenges Record EU Antitrust Fine in Court' (*Reuters*, 11 September 2017) <https://reut.rs/2vPO3lm> accessed 4 November 2017.

[251] *Google Shopping* (Commission Fact Sheet) (n 111).

[252] *Essential facility* is a term often associated with refusal to supply practices and is usually defined as 'a facility or infrastructure, without access to which competitors cannot provide services to their customers'. The concept is often applied in cases related to a utility or transport and communications infrastructure which exhibits natural monopoly characteristics. See Rose and Bailey (n 54) 836-37.

sacrificed its profits in some market in order to promote its services in another one.[253]

As in other pioneer cases, the decision provoked a wave of criticism. Most importantly, some authors mention that proving consumer harm in this case is particularly challenging.[254] It is being correctly pointed out that Google will have a strong case for objective justification since the alleged abuse is at its core a product improvement. Additionally, the consumers can simply use shopping platforms such as Amazon or eBay instead.[255] Unfortunately, the full text of decision has not been released yet at the time of writing of this thesis for further analysis.

In the second case, *Google Android*, Google is investigated for three allegedly abusive practices, some of which resemble the tying practices in *Microsoft*. The Commission took the preliminary view that, with market shares of over 90 % in most Member States, Google has held a dominant position in markets for general internet search, licensable smartphone operating systems, and app stores for the Android operating system.[256] Most importantly, it was found that smartphone manufacturers who wished to pre-install Google Play Store on their devices were obliged to also pre-install Google Search—and set it as the default internet search service—and the web browser Google Chrome. The Commission concluded that these practices have served to protect and strengthen Google's dominant position in internet search and adversely affected competition in the market for mobile web browsers.[257] Secondly, Google is accused of requiring manufacturers, who wished to pre-install Google apps such as Play Store or Search, to commit not

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[253] Lars Wiethaus, 'Google's Favouring of Own Services: Comments from an Economic Perspective' (2015) 6 Journal of European Competition Law & Practice 511.

[254] For instance Pinar Akman, 'The Theory of Abuse in Google Search: A Positive and Normative Assessment under EU Competition Law' (2017) Journal of Law, Technology and Policy (forthcoming) or Ioannis Kokkoris, 'The Google Case in the EU: Is There a Case?' (2017) 62 The Antitrust Bulletin 329.

[255] Alfonso Lamadrid de Pablo, 'Google Shopping Decision - First Urgent Comments' (*Chillin'Competition*, 27 June 2017) <https://chillingcompetition.com/2017/06/27/google-shopping-decision-first-urgent-comments/> accessed 4 November 2017.

[256] *Google Android* (Commission Fact Sheet) (n 112).

[257] Ibid.

to sell devices running on competing operating systems based on the Android open-source code. Lastly, Google is also investigated in this case for exclusivity payments. The undertaking has allegedly granted financial incentives to large device manufacturers on condition that they exclusively pre-install Google Search, and no other internet search services, on their devices.[258]

Whereas the conviction of technological tying in *Google Shopping* raised a number of disapproving reactions, especially the contractual restrictions imposed by Google on device manufacturers in *Google Android* are generally considered out of line by expert literature, and thus predicted to be penalised in the upcoming Commission decision.[259] For instance, an analysis by Edelman and Geradin found grounds for Article 102 infringement in all three practices described above.[260] However, some note that this result will only be due to the Commission's too low bar for concluding foreclosure—at least compared to the USA where actual effects on competition must be shown—and its reluctance to accept efficiencies when assessing tying arrangements.[261] It is expected that the potential fine in this case will be even higher than the € 2.42 billion in *Google Shopping*.[262]

Finally, the latest investigation, *Google AdSense*, opened by the Commission in 2016, is about online search advertising. The Commission took the preliminary view that Google has held a dominant position in the market for search advertising intermediation, and that it has abused this

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[258] Ibid.

[259] Benjamin Edelman and Damien Geradin, 'Android and Competition Law: Exploring and Assessing Google's Practices in Mobile' (2016) 12 European Competition Journal 194.

[260] Ibid.

[261] Patrick F. Todd, 'Out of the Box: Illegal Tying and Google's Suite of Apps for the Android OS' (2017) 13 European Competition Journal 92; on the specific role efficiencies in this case see also Konstantinos Stylianou, 'Systemic Efficiencies in Competition Law: Evidence from the ICT Industry' (2016) 12 Journal of Competition Law & Economics 28.

[262] 'EU Considers Record Fine' (*Reuters*) (n 158).

position by imposing exclusivity agreements on its partners which has led to foreclosure of this market.[263]

4.5 Predatory pricing

4.5.1 General principles

Predatory pricing describes the practice of deliberately setting loss-incurring prices in the short term with the goal of strengthening or maintaining market power by foreclosing competition in the market.[264] It is presumed that '[a] dominant undertaking has no interest in applying such prices except that of eliminating competitors so as to enable it subsequently to raise its prices by taking advantage of its monopolistic position'.[265]

Under the current Commission policy which uses more complex tools than the early cases such as *AKZO* or even *France Télécom*, the first step in distinguishing between price predation and pro-competitive discounting is an assessment whether the dominant undertaking has deliberately sacrificed its profits. In general, costs below average avoidable costs—which are in most cases equal to average variable costs[266]—are viewed as a clear indication of sacrifice.[267] Alternatively, the Commission may rely on direct evidence which clearly shows a predatory strategy, such as a detailed plan to sacrifice in order to exclude a competitor or to prevent entry.[268]

If sacrifice is proven, the Commission will conduct an as-efficient competitor test. Generally, prices below *long-run average incremental costs*

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[263] *Google Shopping and AdSense* (Cases AT.39740 and AT.40411) Commission Press Release IP/16/2532 of 14 July 2016.

[264] Guidance Paper (n 45), para 63.

[265] *AKZO* (n 100), para 71.

[266] See n 205.

[267] Guidance Paper (n 45), para 64.

[268] Ibid, para 66.

(LRAIC)[269] are considered capable of foreclosing AECs from the market.[270] Failure to cover LRAIC indicates that the dominant undertaking is not recovering all the fixed costs of producing the good in question and that an AEC could be foreclosed.[271] However, this approach can result in under-enforcement where the rival that is most likely to emerge is less efficient than the dominant undertaking.[272] The Commission presumes that predatory pricing is unlikely to produce efficiencies.[273]

Lots of software products and internet services are provided for free by their suppliers. At first glance, it might seem that they engage in the worst form of predatory pricing. Yet this view would ignore the different business model employed in multi-sided markets, and it would be easily shown that these suppliers do not actually sacrifice their profits by this practice.

4.5.2 France Télécom

Perhaps the most significant ICT case of predatory pricing has been *France Télécom*. The Commission found that France Télécom's subsidiary Wanadoo Interactive held a dominant position in the French market for high-speed internet access for residential customers.[274]

In accordance with the established case law, the Commission examined whether Wanadoo's prices were below average variable costs or, alternatively, above average variable costs but below average total costs and part of a strategy to eliminate a competitor.[275] It was found that for a significant part of the examined period Wanadoo did not cover the variable

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[269] LRAIC is equal to average total cost in the case of single-product undertakings. Compared to average avoidable costs, LRAIC also includes product-specific fixed costs. See Guidance Paper (n 45), para 26.

[270] Ibid, para 67.

[271] Ibid, para 26.

[272] De la Mano, Nazzini, and Zenger (n 120) 390.

[273] Guidance Paper (n 45), para 74.

[274] *France Télécom* (Wanadoo Interactive) (Case COMP/38.233) Commission Decision of 16 July 2003, para 253.

[275] *AKZO* (n 100), paras 71-72.

or the full costs of its services while deliberately embarking upon a strategy which was unsustainable by its competitors.[276] Significantly, the Court of Justice confirmed the Commission's conclusion that it is not required to prove subsequent recoupment of the losses by the dominant undertaking to find predatory pricing abusive.[277]

4.6 Refusal to supply

4.6.1 General principles

As a general principle, a dominant undertaking has the right to choose its trading partners. However, competition concerns may arise when the undertaking enjoys a dominant position in the upstream market and competes in the downstream market at the same time. At that moment it could use its dominance in the upstream market to foreclose its competitors in the downstream market by refusing to supply them—either factually or practically, for instance by imposing unreasonable conditions—with input they need in order to manufacture their products or provide their services.[278] The concept covers a broad range of practices, including refusal to supply products to existing or new customers, refusal to license intellectual property, refusal to supply proprietary information, or refusal to grant access to an essential facility.[279]

The Commission lays out a three-step test to assess whether the refusal practice infringes Article 102. Firstly, the refusal has to relate to 'a product or service that is objectively necessary to be able to compete

[276] *France Télécom* (Commission Decision) (n 274), paras 109, 299.

[277] Case C-202/07 P *France Télécom v Commission* EU:C:2009:214, [2009] ECR I-2369, para 37; this decision raised controversies as it ignored the argument put forward by Advocate General Mazák who claimed that where the losses are not later recouped, consumers are not harmed. See Case C-202/07 P *France Télécom v Commission* EU:C:2008:520, [2009] ECR I-2369, Opinion of AG Mazák, para 74.

[278] Guidance Paper (n 45), paras 76, 79.

[279] Ibid, para 78.

effectively on a downstream market'. Secondly, the refusal has to likely 'lead to the elimination of effective competition on the downstream market', that is to vertical foreclosure. And, thirdly, the refusal has to likely lead to consumer harm.[280]

Objective justifications are also an important consideration in refusal to supply cases. The dominant undertaking may legally decide to refuse to supply its competitors to protect its incentives to invest and innovate and, thereby, prevent the competitors from a consumer-harming free riding on investments made by the dominant undertaking.[281]

4.6.2 Microsoft

The best-known refusal to supply case in the technology sector is surely *Microsoft*. Besides tying, which was discussed in chapter 4.4.2, Microsoft was also convicted of refusing to supply interoperability information to its competitors. The Commission concluded that Microsoft held a dominant position in the market for work group server operating systems.[282] It was found that this position enabled Microsoft to relatively independently determine the communication rules for interoperability in work group networks, and that interoperability with the Windows architecture was necessary for Microsoft's competitors to viably stay in this market.[283] Microsoft refused to disclose this information when requested by its competitors and the Commission found that this caused a swift increase in Microsoft's market share in the relevant market.[284] This practice had the consequence 'of stifling innovation in the impacted market and of

[280] Ibid, para 81. Similarly in *Microsoft* (General Court Decision) (n 66), para 332.

[281] Guidance Paper (n 45), paras 75, 89.

[282] *Microsoft* (Commission Decision) (n 110), para 541.

[283] Ibid, para 779.

[284] Ibid, paras 780-81.

diminishing consumers' choices by locking them into a homogeneous Microsoft solution'.[285]

Notably, the Commission and subsequently the General Court lowered the threshold for intervention when compared to previous refusal to supply cases. Firstly, by widening the notion of indispensability: elimination of an economically viable entry is now sufficient, rather than a proof of complete absence of potential or actual substitutes. And, secondly, by not requesting elimination of all, but only of effective, competition in the market.[286]

Microsoft claimed that its refusal to supply was justified by its intellectual property rights—that is, it protected its technologies and incentives to innovate—, but this defence was decidedly refused. According to the Commission, since the refused input is indispensable to carry out business in the downstream market, the 'refusal cannot be objectively justified merely by the fact that it constitutes a refusal to license intellectual property'.[287]

Except for the fine of € 497 million mentioned earlier, Microsoft was also ordered to disclose the interoperability information in question to its competitors.[288] However, in 2008, the Commission found that that Microsoft failed to 'comply with the obligation to make [the interoperability information] available to interested undertakings on reasonable and non-discriminatory terms' and imposed a periodic penalty payment of € 899 million on the company.[289] Microsoft lost its appeal at the General Court, but the fine was reduced to € 860 million.[290]

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[285] Ibid, para 782.

[286] Ezrachi (n 60) 264.

[287] *Microsoft* (Commission Decision) (n 110), paras 709-12; *Microsoft* (General Court Decision) (n 66), para 331.

[288] *Microsoft* (Commission Decision) (n 110), para 999.

[289] *Microsoft* (Case COMP/C-3/37.792) Commission Decision fixing the definitive amount of the periodic penalty payment of 27 February 2008, art 1.

[290] *Microsoft* (General Court Decision on Periodic Penalty Payment) (n 154), art 1.

4.6.3 Telecommunications

In most EU Member States, telecommunications network and services providers (telecoms) hold individually or collectively a dominant position for the creation and the operation of their network. As these networks are commonly considered essential facilities,[291] Article 102 assumes particular importance in this sector. Many of the leading cases concern the provision of wholesale services by incumbent telecoms to undertakings competing with them at the retail level. Besides margin squeeze which will be discussed in the following subchapter, these firms have also been found guilty of abusing their dominant position by refusing to supply their competitors in the downstream markets.

The highest fine of € 127.5 million was imposed in 2011 on Telekomunikacja Polska (TP), the monopolist in the wholesale markets for broadband access and network infrastructure access in Poland.[292] The Commission found that TP implemented a complex strategy—consisting of unreasonable contract conditions, delaying negotiation tactics, or refusal to provide network information—aimed at hindering alternative operators from efficiently accessing TP's network and using its wholesale broadband products.[293] Such a strategy of offering unacceptable terms or otherwise degrading the supply of the product, rather than outright refusing to deal, is an example of *constructive refusal*.[294]

Similarly, Slovak Telekom, the Slovak monopolist supplier of wholesale access to the telecommunications network infrastructure and the dominant provider of retail broadband services, and its parent company

[291] That is infrastructure, without access to which competitors cannot provide services to their customers. See also n 252.

[292] *Telekomunikacja Polska* (n 160), art 2, para 664; this case was selected by DG Competition as a representative case in the 2017 ex-post evaluation of its policy in the European telecom markets. The analysis concluded that both qualitative and quantitative evidence confirmed that TP's conduct had adverse effect on the Polish market and that the Commission's prohibition decision was appropriate. See Lear, DIW Berlin, and Analysys Mason, *Economic Impact of Competition Policy Enforcement on the Functioning of Telecoms Markets in the EU* (DG Competition 2017) 11.

[293] *Telekomunikacja Polska* (n 160), para 803.

[294] Guidance Paper (n 45), para 79.

Deutsche Telekom were fined € 70 million in 2014.[295] The Commission concluded that Slovak Telekom abused its position by withholding network information from alternative operators, refusing to provide them access to parts of the network, and imposing unfair terms and conditions on them.[296]

4.7 Margin squeeze

4.7.1 General principles

Margin squeeze is a practice relatively similar to constructive refusal to supply or predatory pricing. Typically in regulated industries, such as telecommunications, where vertically integrated dominant undertakings are often legally required to supply their upstream inputs to their downstream competitors, may these dominant firms attempt to foreclose their competitors by margin squeezing.[297] The margin squeeze strategy of an undertaking dominant in the upstream market lies in charging a price for the upstream product which, compared to the price it charges in the downstream market, does not allow the competitors to stay in the downstream market.[298] The Court of Justice first acknowledged margin squeeze as a distinct abuse in *Deutsche Telekom*.[299]

Once it is established that the undertaking in question operates in both the upstream and the downstream market and that it holds a dominant position in the upstream market, the Commission conducts an AEC test. The key indicator is the comparison of the prices charged by the dominant undertaking in the downstream market and the prices charged to its competitors for comparable products in the upstream market. When the

[295] *Slovak Telekom* (Case AT.39523) Commission Decision of 15 October 2014, art 2, on appeal to the General Court (Case T-851/14 *Slovak Telekom v Commission*), not yet decided.

[296] Ibid, para 820.

[297] De la Mano, Nazzini, and Zenger (n 120) 481.

[298] Guidance Paper (n 45), para 80.

[299] Case C-280/08 P *Deutsche Telekom v Commission* EU:C:2010:603, [2010] ECR I-9555, para 183.

downstream market prices of the dominant undertaking are lower—or higher if the difference is insufficient to cover the dominant undertaking's product-specific costs[300] in the downstream market—it is presumed that not even an AEC can trade in the downstream market profitably.[301]

Both the General Court and the Court of Justice rejected the Commission's form-based approach in *Deutsche Telekom* as insufficient.[302] The anti-competitive effects are assessed by reference to the AEC test. The proof of the effects does not need to be concrete, it is sufficient to demonstrate that the conduct may potentially exclude an AEC. Where access to the supply of the upstream product is indispensable for the sale of the downstream product, the potential anti-competitive effect is considered probable.[303] Where the upstream product is not indispensable but the margin is negative—i.e. the dominant undertaking's upstream price is higher than the downstream price—, an exclusionary effect is also considered probable.[304]

4.7.2 Telecommunications

As discussed in chapter 4.6.3, the specifics of the telecommunications sector make it a typical ground for margin squeeze. Besides numerous investigations at the national level, essentially all significant cases of the practice in the EU concerned margin squeezing of the undertakings competing in the downstream markets for retail telecommunications services by the incumbent vertically integrated telecoms.

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[300] The Commission's Guidance Paper proposes the LRAIC (long-run average incremental costs, see n 269) benchmark. See Guidance Paper (n 45), para 80.

[301] Established in *Deutsche Telekom* (Cases COMP/C-1/37.451, 37.578, and 37.579) Commission Decision of 21 May 2003, para 107; confirmed by the General Court and subsequently also by the Court of Justice in *Deutsche Telekom* (Court of Justice Decision) (n 299), para 183.

[302] *Deutsche Telekom* (Court of Justice Decision) (n 299), para 250.

[303] *TeliaSonera* (n 47), paras 64, 70, 71.

[304] Where the margin is positive, the anti-competitive effect needs to be concretely demonstrated by the Commission. Ibid, paras 72-74.

The first one was *Deutsche Telekom*, decided in 2003. The Commission fined the German operator for charging its competitors more for access to its network than it charged its subscribers for access at the retail level. The prices to be paid to Deutsche Telekom (DT) for upstream access were so high that competitors were forced to charge their end-users prices higher than the prices DT charged its own end-users for similar services.[305] Importantly, the Commission found that DT had abused its position although it was subject to price controls under national regulatory measures, since those controls left DT sufficient scope to modify its pricing practices so as to avoid such abuse.[306]

As there was no European case law on margin squeeze at the time, DT claimed that it could not be found guilty as it has not charged abusive retail prices—i.e. conducted price predation. The CJEU, however, rejected there is a need to establish that the retail prices are abusive, accepted the margin squeeze test conducted by the Commission, and thus acknowledged margin squeeze as a standalone abusive practice as described above. The Court of Justice subsequently confirmed and clarified the *Deutsche Telekom* framework in the preliminary ruling in *TeliaSonera* requested by a Swedish district court.[307]

In 2007, the Spanish operator Telefónica was similarly punished for an upstream pricing strategy that did not allow an AEC to replicate Telefónica's downstream prices while covering its costs, and received a € 152 million fine, the highest so far for the practice.[308] Finally, in 2013, Slovak Telekom was also found—besides refusing to supply as discussed in chapter 4.6.3—to have charged such upstream and downstream prices that an AEC in the downstream market would inevitably have incurred losses had it used Slovak Telekom's infrastructure.[309]

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[305] *Deutsche Telekom* (Commission Decision) (n 301), paras 160-62.

[306] Ibid, para 175; Rose and Bailey (n 54) 926.

[307] *TeliaSonera* (n 47).

[308] *Telefónica* (Commission Decision) (n 119), para 691, art 2.

[309] *Slovak Telekom* (n 295), paras 1043-44.

5 Case law trends in the 21st century

5.1 Assessment of dominance

5.1.1 Generally

Firstly, it was already shown in chapter 3.3.2 dealing with the indicators of dominance that market shares do not play such a central role to determining dominance as they did in the past. While the early case law associated some specific levels of market shares with certain conclusions on dominance and, for instance, presumed that a market share above 50 % constitutes dominance, the current policy leaves the door open for a more thorough consideration of the additional indicators. The Commission's Guidance Paper thus designates market shares only as 'a useful first indication' and the only threshold mentioned in the paper is the soft safe harbour of 40 % below which it is presumed for dominance to be unlikely.[310] However, market shares are still the most telling factor in establishing dominance and it is questionable whether the altered approach actually have produced or will produce a different outcome in any specific case.

Secondly, it is noteworthy that particularly the companies in the ICT industry are often endowed with very high market shares and protected by high barriers to entry and expansion. This has been the case especially in the proceedings against Microsoft, Google, and typically also the national telecommunications operators. Earlier cases where the concerned undertakings enjoyed such significant market power led some to identify these undertakings as having a *superdominant position* which would impose a particularly onerous duty on them not to allow their conduct to impair existing competition.[311] Even though the Commission has referred to the concept for instance in *Microsoft*, where it found the company to hold 'an

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[310] Guidance Paper (n 45), paras 13-14.

[311] The term was coined by Advocate General Fennelly in Joined cases C-395/96 P and C-396/96 P *Compagnie Maritime Belge v Commission* EU:C:1998:518, [2000] ECR I-1365, Opinion of AG Fennelly, para 137.

overwhelmingly dominant position',[312] it was not widely embraced in the decisional practice.[313] According to the current policy, established in *TeliaSonera*, the degree of market strength of a dominant undertaking is only relevant to the assessment of the effects of that undertaking's conduct rather than to the question of whether the abuse as such exists.[314]

5.1.2 ICT industry-specific developments

Competition law has been dealing with several new issues created by the specifics of the technology markets. Firstly, as these are commonly new economy markets, and thus the competition takes place for the market rather than in the market, difficulties arise when defining the relevant product market. Since 'the winner' often creates an entirely new market it naturally becomes the market's dominant firm. These markets are also usually more concentrated due to network effects and the possibility to easily expand the user base. This dominant position is, nevertheless, fragile, as the high market share does not properly reflect the competitive constraints that the undertaking faces from other markets. That the traditional analytical approach to market definition is not well suited to the new economy markets was claimed already by Microsoft[315] and similar defence has doubtlessly arisen in *Google Shopping* as well. Even though the Commission has been refining its methods case by case, it has so far been reluctant to adopt a more radically dynamic approach to the relevant market definition.

Secondly, as discussed chapter 3.2.2, difficulties have occurred in defining the relevant product market in multi-sided markets, where the

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[312] *Microsoft* (Commission Decision) (n 110), para 435.

[313] There would be several problems were the concept eventually accepted. Most importantly, it would be excessively difficult to determine whether an undertaking is superdominant, and it would significantly decrease legal certainty as the notion of abuse under each of the practices would require redefinition. Such an obligation would also put unreasonable pressure on undertakings in new economy markets. See O'Donoghue and Padilla (n 28) 206-07.

[314] *TeliaSonera* (n 47), para 81.

[315] *Microsoft* (Commission Decision) (n 110), paras 465-70.

undertakings sell different products to different groups of customers and where the demand for one product heavily depends on the demand for a second one and the other way around. There is a consensus in the literature that the multi-sided nature of the market should play a role when defining the relevant market.[316] The established SSNIP test cannot be applied to such cases in its traditional form as it would lead to the definition of a market that is too narrow.[317] Moreover, the traditionally used quantitative techniques for defining the market are quickly exhausted due to the lack of monetary consideration, typically for instance in *Google Shopping* where users of Google Search do not pay for the service.[318] As multi-sided platforms are becoming more prevalent in Article 102 proceedings, especially against computer software producers and internet services providers, sooner or later the Commission will need to adopt a common framework for defining the relevant product market in such market structures. The yet-to-be-published decision in *Google Shopping* and the upcoming *Google Android* decision will likely clarify the Commission's current approach.

The latest headache for the competition authorities has been the role of data in the assessment of both market power and certain exclusionary abuses. The digitalization of the economy has expanded the nature, sources, applications, and volume of data online companies have at their disposal.[319] Even though data is in general considered a non-rivalrous good, it has already been acknowledged as an essential input, limited access to which might pose a significant barrier to entry to a market. The markets where the collection and use of data is often seen as especially important, such as search engines or social networks, are often particularly concentrated.[320] As data basically

[316] Filistrucchi and others (n 79) 338.

[317] Ibid 339.

[318] Thomas Hoppner, 'Defining Markets for Multi-Sided Platforms: The Case of Search Engines' (2015) 38 World Competition 365.

[319] Autorité de la Concurrence and Bundeskartellamt, 'Competition Law and Data' (10 May 2016) <https://bit.ly/CompetData> accessed 15 November 2017, 52-53.

[320] Ibid 13.

constitutes an essential facility, it can be fittingly used to foreclose competition for instance by refusal to supply, exclusive dealing, or tying.[321]

Finally, it is even possible that a definition of a relevant market for data itself will be needed. Relevant markets for online platforms are currently defined around a specific service or functionality. Yet in some instances it may be necessary for competition authorities to address possible competition concerns beyond the relevant markets for the actual service and also analyse the situation in a potential market for data.[322]

5.2 Effects-based approach to abuse

The approaches to different anti-competitive practices have all been more or less significantly evolving in the previous years. Nevertheless, the unifying aspect of most of these developments, and arguably the most significant trend in the Article 102 decisional practice, has been the tendency to focus on the effects of the conduct on competition as a prerequisite to finding it abusive.

During the 20th century, the European Commission and the CJEU mostly applied a form-based approach to abuse which essentially meant that dominant undertakings were not allowed to engage in certain defined forms of behaviour. The CJEU repeatedly expressed that it is sufficient that the behaviour is 'liable' to restrict competition. This attitude was criticized for, at times, it punished even practices where a negative effect on competition or consumers was unlikely. Such a regulation necessarily had difficulties justifying its own existence.

The effects-based approach employs relatively complex economic methods and thus offers several advantages which make it a sounder policy than the formalistic approach. Firstly, it reduces the risk of false positives which may lead to undesirable effects on economic efficiency due to the

[321] Ibid 17-20.

[322] Inge Graef, 'Market Definition and Market Power in Data: The Case of Online Platforms' (2015) 38 World Competition 504.

undertakings' reluctance to compete vigorously. Secondly, it reduces the risk of false negatives as it allows the Commission to punish more flexibly new forms of abusive conduct when necessary. Thirdly, recognizing that some forms of conduct can have both anti-competitive and pro-competitive effects, it allows the dominant undertakings to prove that their behaviour was justified by efficiencies which outweigh any negative effects. On the other hand, it is sometimes argued that the effects-based approach can cause legal uncertainty as the undertakings must continually assess the legality of their conduct.[323]

The Commission began to apply the effects-based approach in some investigations, for instance in *Telefónica* or *Microsoft*, in the early 2000s. It fully acknowledged the new approach in 2009 in its Guidance Paper where it explicitly stated that its enforcement priority is behaviour that impairs effective competition and thereby harms consumers.[324] The Commission subsequently laid out the methods it will use in the assessment of anti-competitive effects of the individual practices. It also introduced an exception from the effect-based approach. In the case of naked restrictions, such as those described in *Intel*,[325] whose character can apparently only raise obstacles to competition, a detailed assessment of the effects on competition is not necessary.[326]

To assess the anti-competitive effects, the Commission has generally employed the Posner's as-efficient competitor test which is based on the presumption that a conduct is exclusionary only if it excludes an equally or more efficient rival.[327] The adoption of this test has mostly been well perceived, as it avoids sheltering inefficient competitors and is consistent with the paradigm of protecting competition on the merits.[328] On the other hand, the test does not take into account the fact that consumers can benefit even

[323] De la Mano, Nazzini, and Zenger (n 120) 349.

[324] Guidance Paper (n 45), para 19.

[325] *Intel* (Commission Decision) (n 102), paras 1678-81.

[326] Guidance Paper (n 45), para 22.

[327] Richard A. Posner, *Antitrust Law* (2nd edn, University of Chicago Press 2001) 194-95.

[328] See for instance De la Mano, Nazzini, and Zenger (n 120) 485.

from the presence of less efficient competitors, which might annoy some more interventionist policymakers.

The effects-based approach has also found increasing acceptance at the CJEU. For instance already in the earliest cases of margin squeeze, the Court of Justice did not hesitate to rule that 'in order to establish whether such a practice is abusive, that practice must have an anti-competitive effect on the market'.[329] In *Microsoft*, the General Court embraced the Commission's self-imposed obligation to prove competition foreclosure to find a tying practice and refusal to supply abusive.[330] In *Post Danmark I*, the Court of Justice endorsed the effects-based approach in the assessment of price predation.[331]

More complicated has been the story of exclusivity rebates which have traditionally been considered capable of restricting competition *per se*. In *Intel*, the Commission conducted an economic assessment of the effects of the rebates in question on competition. The General Court held that the effects analysis was unnecessary and refused to review it on appeal.[332] Nevertheless, the latest endorsement of the effects-based approach—as well as the latest sign of convergence of the CJEU's stance with the Commission's policy—came in September 2017 when the Court of Justice ruled that if such analysis was conducted and its result appealed, the General Court has to review it.[333] And since the Commission committed itself to assess the anti-competitive effects of exclusivity rebates, it is likely that the effects-based approach will be the standard in the forthcoming cases.

6 Conclusion

To introduce the reader to the topic, this thesis firstly clarified the economic background and the objectives of the EU competition regulation. It was concluded that the consumer is referred to as the ultimate benefactor of the

[329] *TeliaSonera* (n 47), para 64.

[330] *Microsoft* (General Court Decision) (n 66), paras 869, 563.

[331] *Post Danmark I* (n 166), paras 25, 40, 44.

[332] *Intel* (General Court Decision) (n 194), para 151.

[333] *Intel* (Court of Justice Decision) (n 215), para 141.

current competition policy. However, as there is no defined standard for consumer welfare in the decisional practice, it is simply considered a natural consequence of effectively functioning competition.

Next, the text provided a step-by-step overview of the process of determining the concerned undertaking's position in the market by the European Commission. Although this area has not brought as many novelties as the subsequent assessment of the anti-competitive practices, it was, for instance, shown that market shares do not play such a cardinal role to establishing dominance as they did in the past. Market shares above 50 % are no longer presumed to constitute dominant position. Even though it is still the most important factor, the current policy designates market shares only as 'a useful first indication', providing the opportunity for a more thorough consideration of the additional indicators.

The discussed cases from the ICT industry have been universally characterised by very strongly dominant positions of the investigated undertakings. As the technology markets are an example of new economy markets, especially software and online firms often create entirely new product markets which they come to dominate. Their position is further strengthened by network effects and possibly also by the access to large amounts of data, both of which create barriers to entry and expansion for their rivals. In the telecommunications sector, the incumbent operators usually enjoy near-monopoly positions as they often own the former state infrastructure and are thus sheltered by very high barriers to entry in the form of sunk costs of entry.

The new economy markets also often happen to be multi-sided markets where the firms sell different products to different groups of customers and where the demand for a product heavily depends on the demand for a different product. The established SSNIP test to determine the relevant product market cannot be satisfyingly applied to such cases. As multi-sided markets are becoming more prevalent in the digital economy, it was concluded that the Commission will eventually need to adopt a universal framework for defining the relevant market in such market structures.

The thesis subsequently examined the anti-competitive practices in the high-profile ICT cases. It is difficult to draw generalising conclusions specific to the whole sector since the term ICT industry covers a wide range of different markets today and since there are relatively few infringement cases which have reached the Courts. Nevertheless, it can be concluded that rather wide spread are exclusionary practices on related markets to which are the concerned undertakings trying to leverage their dominant position from the primary markets. For instance, abusive tying has been occurring in the different investigations of Microsoft and Google as they have been trying to integrate complementary products. The potentially newly defined practice of 'favouring own services' in the not yet published *Google Shopping* decision is similarly problematic. In the telecommunications sector, the vertically integrated incumbent operators have often misused their control of network infrastructure to protect their position in the market for retail services by refusing to provide their rivals access to the network or by using the newly established practice of margin squeeze. However, abuses in own markets occasionally occur as well. Google or Qualcomm are also currently investigated for exclusivity payments and Intel tried to strengthen its position by offering exclusivity rebates to its customers and using naked restrictions against its rival.

The most significant trend of the decisional practice has been the shift towards a more effects-based approach to abuse. The Commission now needs to prove likely anti-competitive effects of each conduct before it establishes the behaviour as abusive. The universal tool used by the Commission is the as-efficient competitor test which is based on the presumption that a conduct is anti-competitive only if it forecloses an equally or more efficient rival. This evolution, which effectively means employment of more advanced econometric methods, attempts to resolve the issues of the rigid form-based approach. Especially the increasing prominence of new economy markets makes this transition more necessary than ever as technological progress potentially breeds new anti-competitive practices. The new approach reduces risks of both false positives and false negatives as it allows the Commission to assess the practices more flexibly and focus on the most harmful types of conduct. This does not mean that there are no longer practices which are considered unlawful by their very nature. For instance, exclusivity rebates or predatory pricing are still presumed not to amount to competition on the merits. However, the European Commission committed itself to examine the effects on competition even of these practices and the Court of Justice has lately endorsed this view as well.

Bibliography

Primary resources

EU legislation

Treaty establishing the European Coal and Steel Community [1951]

Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty [2003] OJ L 1/1

Consolidated version of the Treaty on the Functioning of the European Union [2012] OJ C 326/47

Court of Justice decisions

48/69 Imperial Chemical Industries v Commission EU:C:1972:70

6/72 Europemballage and Continental Can v Commission EU:C:1973:22, [1973] ECR 215

40 to 48, 50, 54 to 56, 111, 113 and 114/73 Suiker Unie v Commission EU:C:1975:174, [1975] ECR 1663

27/76 United Brands v Commission EU:C:1978:22, [1978] ECR 207

85/76 Hoffmann-La Roche v Commission EU:C:1979:36, [1979] ECR 461

322/81 Michelin v Commission EU:C:1983:313, [1983] ECR 3461

311/84 CBEM v CLT and IPB EU:C:1985:394, [1985] ECR 3261

118/85 Commission v Italy EU:C:1987:283, [1987] ECR 2599

C-41/90 Höfner and Elser v Macrotron EU:C:1991:161, [1991] ECR I-1979

C-62/86 AKZO Chemie v Commission EU:C:1991:286, [1991] ECR I-3359

C-364/92 SAT Fluggesellschaft v Eurocontrol EU:C:1994:7, [1994] ECR I-43

C-250/92 Gøttrup-Klim v DLG EU:C:1994:413, [1994] ECR I-5641

C-395/96 P and C-396/96 P Compagnie Maritime Belge v Commission EU:C:2000:132, [2000] ECR I-1365

C-180/98 to C-184/98 Pavel Pavlov EU:C:2000:428, [2000] ECR I-6451

C-202/07 P France Télécom v Commission EU:C:2009:214, [2009] ECR I-2369

C-280/08 P Deutsche Telekom v Commission EU:C:2010:603, [2010] ECR I-9555

C-52/09 Konkurrensverket v TeliaSonera Sverige EU:C:2011:83, [2011] ECR I-527

C-209/10 Post Danmark v Konkurrencerådet EU:C:2012:172 (Post Danmark I)

C-549/10 P Tomra Systems v Commission EU:C:2012:221

C-295/12 P Telefónica v Commission EU:C:2014:2062

C-170/13 Huawei v ZTE EU:C:2015:477

C-413/14 P Intel v Commission EU:C:2017:632

General Court decisions

T-228/97 Irish Sugar v Commission EU:T:1999:246, [1999] ECR II-2969

T-219/99 British Airways v Commission EU:T:2003:343, [2003] ECR II-5917

T-340/03 France Télécom v Commission EU:T:2007:22, [2007] ECR II-107

T-201/04 Microsoft v Commission EU:T:2007:289, [2007] ECR II-3601

T-271/03 Deutsche Telekom v Commission EU:T:2008:101, [2008] ECR II-477

T-321/05 AstraZeneca v Commission EU:T:2010:266, [2010] ECR II-2805

T-336/07 Telefónica v Commission EU:T:2012:172

T-167/08 Microsoft v Commission EU:T:2012:323

T-286/09 Intel v Commission EU:T:2014:547

T-486/11 Telekomunikacja Polska v Commission EU:T:2015:1002

Opinions of Advocates General

C-395/96 P and C-396/96 P Compagnie Maritime Belge v Commission EU:C:1998:518, [2000] ECR I-1365, Opinion of AG Fennelly

C-53/03 Syfait v GlaxoSmithKline EU:C:2004:673, [2005] ECR I-4609, Opinion of AG Jacobs

C-202/07 P France Télécom v Commission EU:C:2008:520, [2009] ECR I-2369, Opinion of AG Mazák

European Commission decisions and investigation documents

Deutsche Telekom (Cases COMP/C-1/37.451, 37.578, and 37.579) Commission Decision of 21 May 2003

France Télécom (Wanadoo Interactive) (Case COMP/38.233) Commission Decision of 16 July 2003

Microsoft (Case COMP/C-3/37.792) Commission Decision of 24 March 2004

Telefónica (Case COMP/38.784) Commission Decision of 4 July 2007

MasterCard (Cases COMP/34.579, COMP/36.518, and COMP/38.580) Commission Decision of 19 December 2007

Microsoft (Case COMP/C-3/37.792) Commission Decision fixing the definitive amount of the periodic penalty payment of 27 February 2008

Intel (Case COMP/C-3/37.990) Commission Decision of 13 May 2009

Microsoft (Tying) (Case COMP/C-3/39.530) Commission Decision of 16 December 2009

Telekomunikacja Polska (Case COMP/39.525) Commission Decision of 22 June 2011

Microsoft (Tying) (Case COMP/C-3/39.530) Commission Decision on the imposition of a fine of 6 March 2013

Motorola (Case AT.39985) Commission Decision of 29 April 2014

Samsung (Case AT.39939) Commission Decision of 29 April 2014

Slovak Telekom (Case AT.39523) Commission Decision of 15 October 2014

Qualcomm (Cases AT.39711 and AT.40220) Commission Press Release IP/15/6271 of 8 December 2015

Google Android (Case AT.40099) Commission Fact Sheet MEMO/16/1484 of 20 April 2016

Google Shopping and AdSense (Cases AT.39740 and AT.40411) Commission Press Release IP/16/2532 of 14 July 2016

Google Shopping (Case AT.39740) Commission Fact Sheet MEMO/17/1785 of 27 June 2017

European Commission notices and papers

Commission notice on the definition of relevant market for the purposes of Community competition law [1997] OJ C 372/5

Commission notice - Guidelines on the effect on trade concept contained in Articles 81 and 82 of the Treaty [2004] OJ C 101/81

DG Competition discussion paper on the application of Article 82 of the Treaty to exclusionary abuses [2005]

Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings [2009] OJ C 45/7

U.S. legislation

Sherman Act, codified at 15 U.S. Code §§ 1-7 (1890)

U.S. case law

Standard Oil Co of New Jersey v United States, 221 U.S. 1 (1911)

Secondary resources

Books

Akman P, *The Concept of Abuse in EU Competition Law: Law and Economic Approaches* (Hart Publishing 2012)

Bishop S and Walker M, *The Economics of EC Competition Law: Concepts, Application and Measurement* (3rd edn, Sweet & Maxwell 2010)

Ezrachi D, *EU Competition Law: An Analytical Guide to the Leading Cases* (4th edn, Hart Publishing 2014)

Faull J and Nikpay A, *The EU Law of Competition* (3rd edn, OUP 2014)

Ilzkovitz F and Dierx A, *Ex-Post Economic Evaluation of Competition Policy Enforcement: A Review of the Literature* (DG Competition 2015)

John LE, *Bellamy and Child: European Union Law of Competition: Third Cumulative Supplement to the Seventh Edition* (OUP 2016)

Lear, DIW Berlin, and Analysys Mason, *Economic Impact of Competition Policy Enforcement on the Functioning of Telecoms Markets in the EU* (DG Competition 2017)

Mackenrodt M-O, Gallego BC, and Enchelmaier S, *Abuse of Dominant Position: New Interpretation, New Enforcement Mechanisms?* (Springer-Verlag Berlin Heidelberg 2008)

Niels G, Jenkins H, and Kavanagh J, *Economics for Competition Lawyers* (2nd edn, OUP 2016)

O'Donoghue R and Padilla J, *The Law and Economics of Article 102 TFEU* (2nd edn, Hart Publishing 2013)

Posner RA, *Antitrust Law* (2nd edn, University of Chicago Press 2001)

———, *Economic Analysis of Law* (9th edn, Wolters Kluwer Law & Business 2014)

Rose V and Bailey D, *Bellamy and Child: European Union Law of Competition* (7th edn, OUP 2013)

Whish R and Bailey D, *Competition Law* (8th edn, OUP 2015)

Journal articles

Akman P, 'Searching for the Long-Lost Soul of Article 82EC' (2009) 29 Oxford Journal of Legal Studies 267

———, 'The Theory of Abuse in Google Search: A Positive and Normative Assessment under EU Competition Law' (2017) Journal of Law, Technology and Policy (forthcoming)

Edelman B and Geradin D, 'Android and Competition Law: Exploring and Assessing Google’s Practices in Mobile' (2016) 12 European Competition Journal 159

Filistrucchi L and others, 'Market Definition in Two-Sided Markets: Theory and Practice' (2014) 10 Journal of Competition Law & Economics 293

Friederiszick HW and Gratz L, 'Hidden Efficiencies: On the Relevance of Business Justifications in Abuse of Dominance Cases' (2015) 11 Journal of Competition Law & Economics 671

Graef I, 'Market Definition and Market Power in Data: The Case of Online Platforms' (2015) 38 World Competition 473

Hoppner T, 'Defining Markets for Multi-Sided Platforms: The Case of Search Engines' (2015) 38 World Competition 349

Ibáñez Colomo P, 'Beyond the ‘More Economics-Based Approach’: A Legal Perspective on Article 102 TFEU Case Law' (2016) 53 Common Market Law Review 709

Kokkoris I, 'The Google Case in the EU: Is There a Case?' (2017) 62 The Antitrust Bulletin 313

Lowe P, 'Preserving and Promoting Competition: A European Response' (2006) 1 Competition Policy Newsletter 1

Rato M and Petit N, 'Abuse of Dominance in Technology-Enabled Markets: Established Standards Reconsidered?' (2013) 9 European Competition Journal 1

Stylianou K, 'Systemic Efficiencies in Competition Law: Evidence from the ICT Industry' (2016) 12 Journal of Competition Law & Economics 557

Todd PF, 'Out of the Box: Illegal Tying and Google's Suite of Apps for the Android OS' (2017) 13 European Competition Journal 62

Wiethaus L, 'Google's Favouring of Own Services: Comments from an Economic Perspective' (2015) 6 Journal of European Competition Law & Practice 506

Online resources

Autorité de la Concurrence and Bundeskartellamt, 'Competition Law and Data' (10 May 2016) <https://bit.ly/CompetData> accessed 15 November 2017

Daniels G, 'First the FTC, Now Apple: Is Qualcomm's Business Model Under Threat?' (*Telecom TV*, 23 January 2017) <http://bit.ly/qualcommapple> accessed 31 October 2017

Lamadrid de Pablo A, 'Google Shopping Decision - First Urgent Comments' (*Chillin'Competition*, 27 June 2017) <https://chillingcompetition.com/2017/06/27/google-shopping-decision-first-urgent-comments/> accessed 4 November 2017

Yun Chee F, 'Google Challenges Record EU Antitrust Fine in Court' (*Reuters*, 11 September 2017) <https://reut.rs/2vPO3lm> accessed 4 November 2017

———, 'Exclusive: EU Considers Record Fine As Panel Checks Google Android Case - Sources' (*Reuters*, 5 July 2017) <https://reut.rs/2upBFrT> accessed 10 October 2017

Abstract

The concept of abuse of dominant position refers to business practices in which a dominant market player may engage in order to maintain or strengthen its position in the market, and are prohibited under Article 102 of the Treaty on the Functioning of the European Union. This master's thesis provides insight into theory and decisional practice of abuse of dominant position within the EU with particular focus on the area of information and communication technologies (ICT).

The ICT industry belongs among the fastest developing, with many new powerful market players emerging, often creating entirely new markets for themselves. This is where a potential risk for an abuse of dominance occurs and why many of the breakthrough cases in the previous years have been related to this sector. Since not only their products but also their business models are innovative, the competition policy must advance accordingly.

This thesis firstly introduces the economic background and the policy objectives of contemporary EU competition rules. It is followed by a step-by-step examination of the assessment on the position of the investigated firm in the relevant market and the legality of the practice in question. Highlighted are the aspects which have been crucial for the assessment in the concerned technology sector cases as well as the challenges the regulation faces in the digital era. Particular attention is paid to the facts and controversies of the European Commission's recent and current investigations of Microsoft, Intel, Google, and the telecommunications operators.

Finally, the text identifies the latest developments in the decisional practice. Discussed are especially the challenges in defining the relevant market in multi-sided markets, and the recent approach to abuse which focuses more on the effects of the examined practices.

Keywords: abuse of dominant position, Article 102, information and communication technologies

Abstract (Czech)

Koncept zneužití dominantního postavení se vztahuje k obchodním praktikám, k nimž se může uchýlit dominantní hráč na trhu za účelem udržení nebo posílení své pozice, a jež jsou zakázané dle článku 102 Smlouvy o fungování Evropské unie. Tato diplomová práce se zabývá teorií a rozhodovací praxí v oblasti zneužití dominantního postavení v EU, a to se zvláštním zaměřením na sektor informačních a komunikačních technologií (ICT).

ICT průmysl je jedním z nejrychleji se rozvíjejících a na scéně se objevuje mnoho silných podniků, které pro sebe často vytvářejí zcela nové trhy. Za takových podmínek roste riziko zneužití dominance, což je ostatně důvodem proč mnoho přelomových rozhodnutí z posledních let bylo spojeno s tímto sektorem. Jelikož nejen produkty, ale i obchodní modely těchto podniků jsou vysoce inovativní, musí s nimi soutěžní politika přiměřeně držet krok.

Tato práce nejprve představuje ekonomická východiska a cíle současné regulace hospodářské soutěže v EU. Následuje rozbor jednotlivých kroků při posuzovaní pozice vyšetřovaného podniku na relevantním trhu a následně zákonnosti jeho jednání. Poukázáno je zejména na aspekty, které byly klíčové pro posouzení ve významných případech z technologického sektoru, jakož i na výzvy, kterým současná regulace čelí v digitální éře. Zvláštní pozornost je pak přikládána faktům, zvláštnostem a kontroverzím nedávných a současných vyšetřování Evropské komise v případech společností Microsoft, Intel, Google nebo různých telekomunikačních operátorů.

Práce nakonec identifikuje nejnovější trendy v rozhodovací praxi. Zabývá se zejména obtížností definice relevantního trhu na tzv. vícestranných trzích a také nedávným posunem v přístupu ke zneužití, který se více zaměřuje na analýzu dopadů vyšetřovaných praktik na hospodářskou soutěž.

Klíčová slova: zneužití dominantního postavení, článek 102, informační a komunikační technologie