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Summary

The 2004 Merger Regulation introduced a change to the substantive test for the Commission's intervention in mergers. The Commission is now able to block mergers which significantly impede effective competition in the EC. The purpose of the change was to guarantee that the Commission could deal with all harmful effects to competition resulting from a merger. More specifically, the purpose was to include unilateral effects in the merger test.

Unilateral effects can be described as an effect of the change in market structure following a merger, i.e. a removal of certain competitive restraints, which allows the companies remaining in the market to raise prices unilaterally. Unilateral effects can thus comfortably include the notion of dominance. However, there are unilateral effects, which reach beyond market dominance in that they can affect all companies in a market before the thresholds of dominance are reached. Importantly, these unilateral effects are generally restricted to oligopolistic markets.

Economic theory shows that these unilateral effects may be the result of mergers in both homogeneous product markets and differentiated, i.e. branded, product markets.

As regards homogeneous product markets, economic models make two predictions; first of all the more companies are in a market the lower the price is. Secondly, prices and profitability fall as total market output rises. Thus, a company's best response to an increase in output by a competitor is to reduce its own. Therefore, a consequence of a merger is that the merged company will reduce output after the merger. Some of this reduction will be offset by competitors with an increase in output, however, this offset is only

partial, since it will not be profitable for them to increase output to match the pre-merger level. This effect may be even more significant if the competitors face capacity constraints since they will be restricted in increasing their output.

In differentiated product markets economic theory assumes that consumers will not be indifferent in choosing between two products at equal prices, as they would be in a homogeneous market, since the products are, in their eyes, not perfect substitutes. The products may however represent close substitutes for one another. Thus, a price increase for one product, the consumers' first choice, will eventually push them to buy another product, their second choice. Assuming that these are two products which now, due to a merger, come under the same ownership, a loss of sale due to a price increase on one of the products is now likely to be captured by the same company in sales of the other product, thus giving the company incentive to unilaterally increase prices for both products.

The introduction of unilateral effects analysis in EC merger control is an important change to the merger test, which has consequences beyond a simple shift to potentially lower market share thresholds. The EC Horizontal Merger Guidelines are an important tool for practitioners. However, in light of the changes implemented and the missing case law these neglect to give realistic guidance, which is available in other jurisdictions, in order to provide for the necessary legal certainty.

Abbreviations

CFI	Court of First Instance
DOJ	US Department of Justice
EC	European Community
ECJ	European Court of Justice
FTC	US Federal Trade Commission
HHI	Herfindahl-Hirschman Index
OFT	UK Office of Fair Trading
SIEC	Significant Impediment to Competition test
SLC	Substantial Lessening of Competition test
SSNIP	Small but Significant Non-Transitory Increase in Price test
TEC	Treaty of European Communities
UK	United Kingdom
US	United States of America

1 Introduction

1.1 Initial comments

Merger control has been an important part of European Community (EC) competition law since 1989, when the first Council Regulation 4064/89 of 21st of December 1989 on the control of concentrations between undertakings¹ (the 1989 Merger Regulation) took effect. Earlier in 1973 the European Court of Justice (ECJ) had come to the conclusion in *Continental Can v Commission*,² that the Commission had powers under Article 82 Treaty Establishing the European Community³ (TEC) (then Article 86), which bans the abuse of a dominant position, to review concentrations.⁴ Then in 1988 the ECJ in *BAT v Commission*⁵ further concluded that Article 81(1) TEC (then Article 85(1)), which bans collusive behaviour between companies, might apply to concentrations.⁶ However, neither was to be considered an optimal tool for regulating mergers, there was general consensus that a separate tool was needed.⁷ In the resulting 1989 Merger Regulation the dominance test was to become the standard for when the Commission would have the power to intervene in a merger between companies.

On May 1st 2004 a new test for merger control in the EC came into force with Council Regulation No 139/2004 of 20th January 2004 on the control of concentrations between undertakings⁸ (the 2004 Merger Regulation). The new test gives the Commission the power to intervene in mergers, which Significantly Impede Effective

¹ OJ 1989/L 395/1.

² *Europemballage & Continental Can v Commission* 6/72 [1973].

³ Consolidated version of the Treaty Establishing the European Community, OJ 2002/C 325/33.

⁴ See paragraphs 25 and 26 of *Continental Can v Commission*.

⁵ *BAT and Reynolds v Commission* 142/84 and 156/84 [1988].

⁶ *Ibid*, paragraphs 37-39.

⁷ This will be considered in greater detail in chapter 2.

⁸ OJ 2004/L 24/1.

Competition (SIEC) in the common market. The purpose of the change is to allow the Commission to control mergers, which, despite not creating single or collective dominance in the common market, will have the effect of significantly impeding effective competition.⁹ According to the 2004 Merger Regulation this is especially important in oligopolistic markets.¹⁰

1.2 The problem

In economic terms mergers between companies can give rise to two types of negative effects in any market.¹¹ The first type is coordinated effects. Under EC competition law coordinated effects are equatable with the collective dominance test, i.e. that the structure of a market changes to such a degree after a merger that the companies remaining in the market can tacitly coordinate their behavior so as to harm effective competition in the market.

The second type type of negative effects are so called unilateral effects, for some reason referred to as non-coordinated effects by the Commission.¹² Unilateral effects result in the ability of the merged entity, or for that matter any company in the market, to raise prices post-merger. At first glance this seems to be the very definition of the traditional dominance test. However, unilateral effects are defined by the Commission as that part of the new test, which extends beyond the scope of dominance, essentially not requiring a dominant position for them to apply.¹³

⁹ Preamble of the 2004 Merger Regulation, paragraph 25.

¹⁰ Ibid.

¹¹ *Guidelines on the Assessment of Horizontal Mergers under the Council Regulation on the Control of Concentrations between Undertakings* (OJ 2004/C 31/03) (the EC Horizontal Merger Guidelines), paragraph 22.

¹² Preamble of the 2004 Merger Regulation, paragraph 25, see also the EC Horizontal Merger Guidelines, paragraph 24-38. Despite the Commission choosing a different word to describe the relevant effect the term 'unilateral effects' will be used throughout this paper to describe these effects since this seems to be a more generally used term.

¹³ EC Horizontal Merger Guidelines, paragraph 25: "[...] *The notion of 'significant impediment to effective competition' in Article 2(2) and (3) should be interpreted as extending, beyond the concept of dominance, only to the anti-competitive effects of a*

At this point the question becomes pertinent how mergers will lessen competition without creating some form of market dominance, even in an oligopolistic market? What are unilateral effects? Can a significant impediment to competition, including the scope of unilateral effects, not fit completely into the scope of the traditional dominance test? More importantly, is the legal delineation of unilateral effects clear enough and are these effects a useful and predictable tool for lawyers working with merger control? The aim of this paper is to attempt find answers to these questions.

1.3 Methodology

In order to first understand the limits of the established tools of EC merger control this paper will begin with describing the single company dominance test according to Article 2(3) of the 1989 Merger Regulation as applied by the Commission, the ECJ and Court of First Instance (CFI) in their case law. Discussing the dominance test when a new test has come into force with the 2004 Merger Regulation is not irrelevant since the notion of dominance is maintained in Article 2(3) of the regulation as an example of mergers which impede effective competition. This was done on purpose in order to maintain the ECJ case law on dominance.¹⁴

Secondly, since one of the reasons for changing the merger control test is claimed to be the existence of oligopolistic markets and the ensuing problems associated with those markets, this paper will also attempt to describe oligopolistic markets and the particular problems, which those markets pose for merger control.

concentration resulting from the [unilateral] behaviour of undertakings which would not have a dominant position on the market concerned.”

¹⁴ Preamble of the 2004 Merger Regulation, paragraph 26.

Thirdly, the concept of collective dominance, or coordinated effects, will be described and how this relates to a specific aspect of oligopolistic markets, that is to say tacit coordination.

Fourthly, this paper will examine the concept of unilateral effects under Article 2(3) of the 2004 Merger Regulation, namely the SIEC test. For this purpose a textual analysis of the EC Commissions Horizontal Merger Guidelines will be used. For comparative purposes the joint United States (US) Federal Trade Commission (FTC) and US Department of Justice (DOJ) Horizontal Merger Guidelines¹⁵ will be described as well as the Irish Competition Authority's Merger Guidelines.¹⁶ References will be made to some of the case law available to us, and articles on the matter.

Lastly, the dominance test will be contrasted with unilateral effects. Here an attempt will be made to discover whether or not a gap truly existed in merger control before the 2004 Merger Regulation between an effectively competitive market and dominance. If so, the extent of the gap will be discussed and whether or not the new test for unilateral effects closes this gap.

1.4 Delimitations

The subject of merger control is a broad one indeed if all aspects of it are considered. In order to limit the scope of this paper as much as possible to the new merger test and unilateral effects analysis this paper will attempt to avoid discussing the following:

- *Definitions of economic terms and economic models* – A substantial part of this paper is dedicated to explaining, in economic terms, the effects of mergers on market

¹⁵ Horizontal Merger Guidelines issued by the US DOJ and FTC on 2 of April 1992 (as amended on 8 April 1997) (US Horizontal Merger Guidelines).

¹⁶ Irish Competition Authority's Notice in respect of Guidelines for Merger Analysis, decision nr. N/02/004 (hereafter the Irish Merger Guidelines).

structures. An attempt has been made to use more common terms for these and to avoid the technical side of the economic analysis, for example the formulas and models used for calculating unilateral effects.

- *Demand side substitution and the closeness of competitors*
- Defining the relevant market is an important aspect of merger control. Indeed, after the new test has come into force it can be argued that this has become even more important since now product substitution is potentially analysed on two levels. First for product demand side substitution for the purpose of defining the market and second, if applicable, for the purposes of discovering the extent of unilateral effects in differentiated product markets. However, describing the difference in legal and economic terms would require much more space than could be dedicated to it in this paper.
- *Remedies* – Remedies offered by the merging companies can be an important part of merger control. As such, remedies may substantially alter the effects of a merger on the structure of a market. Again, this subject deserves more attention than can be given to it in this paper, especially the question what effect the new Article 2(3) will have for companies offering remedies in negotiations with the Commission.
- *Debate during the time leading up to the adoption of the 2004 Merger Regulation* – The debate leading up to the adoption of the 2004 Merger Regulation regarding the pros and cons of including a unilateral effects test in EC merger control and the political compromise, which lies at the heart of the new Article 2(3) test, are fascinating subjects. The intention here is, however, to focus on the legal consequences of the new test.

In some cases suggestions will be made to the reader regarding issues that border on the subject of this paper.

1.5 Points of departure

Competition law remains a popular subject with lawyers and the recent developments in merger control are no exception. There are many excellent articles to be found on the subject of unilateral effects. Early articles focused very much on whether or not there was a need to introduce a test in EC merger control which would focus more generally on adverse effects to competition following a merger, rather than just the creation or strengthening of a dominant position. Most of the recent literature, however, is descriptive and does not attempt to give a critical analysis of the new test found in the 2004 Merger Regulation. The fact that the European courts have not decided any cases purely on the basis of unilateral effects does of course limit the discussion to a theoretical debate as to the scope of the new test and its future application in EC merger control.

In this discussion the following Study, Articles and Guidelines will be used as points of departure:

- *Assessment criteria for distinguishing between competitive and dominant oligopolies in merger control*, by Europe Economics (the Europe Economics study)¹⁷
- EC Commission Horizontal Merger Guidelines
- US Horizontal Merger Guidelines
- *Mind The Gap: Unilateral Effects Analysis Arrives in EC Merger Control* by Sven B. Völcker¹⁸

¹⁷ Europe Economics, Assessment criteria for distinguishing between competitive and dominant oligopolies in merger control, a study commissioned by DG Enterprise (Enterprise paper #6), 2002, available at: <http://europa.eu.int/comm/enterprise/library/enterprise-papers/paper6.htm>, last visited on 17th of april 2006. This study is essentially a summary of the economic literature on the effects of mergers on market structures.

- *Mind the Gap: Reforming the EU Merger Regulation*, by John Fingleton and Dermot Nolan¹⁹

Before moving on to the substantive part of this paper, a brief overview of the development of EC and US merger control will be given.

¹⁸ Sven B. Völcker, *Mind The Gap: Unilateral Effects Analysis Arrives in EC Merger Control*, E.C.L.R. 2004, Issue 7, p. 395-409.

¹⁹ John Fingleton and Dermot Nolan, *Mind the Gap: Reforming the EU Merger Regulation*, Mercato, Concorrenza, Regole, May 2003.

2 A brief overview of merger control

2.1 EC merger control

When the Treaty of Rome was signed on the 25th of March 1957 it included the rules on anti-competitive collusion between companies, now Article 81(1) TEC, and abuse of a dominant position, now Article 82 TEC. However, the Treaty did not and still does not include any rules regarding concentrations. The Commission and the ECJ made some attempts from that time on to fill this lacuna in order to catch at least some anti-competitive concentrations.

In 1966 the Commission published a notice²⁰ stating that Article 81 would not be applicable to agreements "[...] whose purpose is the acquisition of total or partial ownership of enterprises." However, this would be developed in 1988 in *BAT v Reynolds*.²¹ In this case the issue arose what would happen in situations where one company buys shares in another without that purchase leading to legal or de facto control, but it none the less creates a risk of decreased competition between the the companies. The ECJ considered in its judgment that Article 81 could apply in such situations, where the two companies are competitors and the shareholding gives the buying company the possibility to influence the commercial behaviour of the other, or even where the investing company will have the possibility of strengthening its control at a later stage by acquiring a larger share.²²

²⁰ Commission Memorandum on the Concentration of Enterprises in the Common Market.

²¹ See *BAT v Commission*.

²² *Ibid*, paragraphs 37-39. For a more recent example of applying Article 81 to shareholding between competitors see the Commission's decision in *BT-MCI* (OJ 1994/L 223/36). In this case the Commission was concerned that the shareholding and the resulting seats of the board of directors would lead to access to confidential information and thus eventual coordination of the behaviour between the competitors.

Earlier, in 1973, the attention had focused on Article 82. In *Continental Can v Commission*²³ the ECJ had to consider whether Article 82 could be used to control concentrations having an effect in the EC. Essentially the ECJ came to the conclusion that Article 82 also regards indirect damage to consumers that is caused by changes in the effective competition structure of a market. The court came to the conclusion that it is not necessary for the dominant company to use its dominance to acquire another company, i.e. to threaten to harm a company unless it agrees to be taken over. It suffices that competition is further reduced on a market which is already dominated.²⁴

Although considered technically possible according to the above mentioned case law, Articles 81 & 82 were never considered adequate enough tools to handle such a complicated task as merger control.²⁵ Suffice to say that any control under those articles would obviously lack any time limits within which the Commission had to complete any investigation. This situation was considered to deprive the merging entities of the legal certainty required at such a delicate point in time.²⁶ Already in 1973 the Commission had proposed separate rules for merger control,²⁷ but due to differing opinions between Member States as to the scope of EC merger control the proposal, and many successive proposals,²⁸ were not finalized, leading some authors to likening the situation to Samuel Beckett's *Waiting for Godot*.²⁹ However, the aim of the Member States to complete the EC Single Market by 1992 put further pressure on them to conclude the negotiations.

²³ See *Continental Can v Commission*.

²⁴ *Ibid*, paragraphs 25 and 26.

²⁵ Paolo Mengozzi, *Il diritto Comunitario e dell'Unione Europea*, CEDAM, 1997, p. 349.

²⁶ *Ibid*.

²⁷ Commission Proposal for a Regulation of the Council of Ministers on the Control of Concentrations between Undertakings (OJ 1973/C 92/1).

²⁸ See OJ 1982/C 36/3; OJ 1984/C 51/8; OJ 1986/C 324/5 and OJ 1988/C 130/4.

²⁹ Paul Craig, Gráinne de Búrca, *EU Law* (3rd ed.), Oxford University Press, 2003, p. 1034.

Finally, with the 1989 Merger Regulation, which was subsequently amended in 1997,³⁰ the EC acquired its first purpose built system for regulating mergers. It placed the handling of merger cases at EC level with the Commission. This presented a specific system for notifying mergers above certain turnover thresholds to the Commission. More importantly, the 1989 Merger Regulation established a specific test for when the Commission could intervene in mergers: The dominance test. According to Article 2 (3) of the 1989 Merger Regulation this test essentially required the Commission to show that a merger would create or strengthen an already existing dominant position if it wanted to intervene.³¹

With the 2004 Merger Regulation, a change has been made to the substantive test which triggers the Commission's powers to intervene in mergers with an effect in the EC. Now, according to Article 2(3) of the 2004 Merger Regulation, mergers which Significantly Impede Effective Competition (SIEC) in the common market shall be declared incompatible with the common market. The creation or strengthening of a dominant position has moved into the background, but is maintained as an example of a merger which will significantly impede competition.³²

2.2 US merger control

In the US the rules governing merger control are found in Section 1 of the 1890 Sherman Act,³³ Section 7 of the 1914 Clayton Act,³⁴ and Section 5 of the 1914 Federal Trade Commission Act.³⁵ Two US agencies enforce competition law (referred to antitrust law in the US) at the federal level: the FTC, which enforces the Federal Trade

³⁰ Regulation 1310/97 (OJ 1997/L 180/1).

³¹ This test will be considered further in Chapter 3.

³² The new test contained in Article 2 of the 2004 Merger Regulation will be considered in detail in chapter 6.

³³ 15 USC §1.

³⁴ 15 USC §18.

³⁵ 15 USC §41 *et seq.*

Commission Act, and the Antitrust Division of the DOJ, which enforces the Sherman Act and the Clayton Act.³⁶

The most relevant rule for the purposes of this paper is Section 7 of the Clayton Act, which proscribes in the first paragraph that “*No person [...] shall acquire, directly or indirectly, the whole or any part of the stock or other share capital [...], where [...] the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly.*”³⁷ Such mergers may thus be subject to intervention on behalf of the US Agencies.

Despite the fact that the history of US merger control is by some authors³⁸ divided into three periods: almost no effective merger control at all from 1890 up to 1959, a period of vigorous merger control from 1950 up through 1973, and lax enforcement from 1974 to the present, US statutory law has not undergone development as seen in the EC. In the US the Substantial Lessening of Competition test (SLC) has been a part of merger review since its beginning in 1914. The US statutes on mergers have been amended twice,³⁹ but substantively the test has remained the same. However, application of the SLC test has developed with economic theories, most recently to include the theory of unilateral effects.

Having briefly reviewed the development of EC and US merger control law the next chapter will discuss the dominance test as it has been applied by the EC Commission and courts.

³⁶ Collectively the FTC and the Antitrust Division of the DOJ will be referred to as the US Agencies.

³⁷ Emphasis added.

³⁸ Dennis Müller, *Antimerger policy in the United States: History and lessons* in *Empirica* 23(3) 1996, p. 229-254.

³⁹ In 1933 the Glass-Steagall Act separated investment banking and commercial banking firms and prohibited banks from owning corporate stock and in 1976 the US merger rules were amended with the Hart-Scott-Rodino Antitrust Improvements Act, requiring prior notification of mergers to the US Agencies.

3 Market dominance

3.1 The economics of market power and market dominance

Economists refer to market power as a company's ability to profitably sustain prices above competitive levels or restrict output or quality below competitive levels.⁴⁰ An undertaking with market power may also have the ability and incentive to harm the process of competition in other ways; for example, by weakening existing competition, raising entry barriers or slowing innovation. Where market power is exercised with the effect that quality, service or innovation is reduced, customers can be thought of as deriving poorer value for money than if there was effective competition in the market. Market power is not an absolute term but a matter of degree, and the degree of market power will depend on the circumstances of each case. Dominance is considered to be a more extreme form of market power.⁴¹ Two factors contribute to dominance: a high market share and significant barriers to entry.⁴² Dominance also implies that a company has more market power than any of its competitors. In assessing whether an undertaking has substantial market power, it is necessary to consider to what extent an undertaking faces competitive constraints.

3.2 The legal test

3.2.1 Article 2(3) and United Brands

Article 2(3) of the 1989 Merger Regulation was phrased in the following manner: "*A concentration which creates or strengthens a*

⁴⁰ See for example, John Fingleton and Dermot Nolan, *Mind the Gap: Reforming the EU Merger Regulation* in Mercato, Concorrenza, Regole, May 2003, p. 3.

⁴¹ The United Kingdom Office of Fair Trading (OFT) refers to this as Substantial Market Power, OFT Guideline 415, *Assessment of Market Power* (2004), p. 6.

⁴² Richard Whish, *Competition Law* (5th ed.), Butterworths, 2003, p. 43-45.

dominant position as a result of which effective competition would be significantly impeded in the Common Market or in a substantial part of it shall be declared incompatible with the Common Market.”

But what is the legal test for dominance? The 1989 Merger Regulation did not offer any definition of what constitutes a dominant position.⁴³ In 1978 in *United Brands v Commission*,⁴⁴ a case dealing with the abuse of a dominant position under Article 82 TEC in the banana market, the ECJ had laid down the following test for finding dominance: *“The dominant position thus referred to [...] relates to a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers.”*⁴⁵ In using the concept of dominant position in the 1989 Merger Regulation the jurisprudence of the ECJ under Article 82 TEC could be applied to merger cases as well.⁴⁶

In finding whether a dominant position exists involves a three step procedure: First to define the relevant market. Secondly to analyse the market to discover if a company holds a dominant position, i.e. market power, on that market and the third step determines if other potential competitors in the market will exert competitive pressure and thus reduce the merged entity’s market power.⁴⁷ The first step will not be considered here.⁴⁸ There are two elements which need to be considered when analysing market power: market shares and

⁴³ Also, the Commission did not published a Notice on dominance to accompany its *Notice on the Definition of the Relevant Market for the Purposes of Community Competition Law* (Notice on Market Definition) (OJ 1997/C 372/5).

⁴⁴ *United Brands Company v Commission* 27/76 [1978].

⁴⁵ *Ibid*, paragraph 64.

⁴⁶ Richard Whish, *Competition Law*, p. 833.

⁴⁷ *Ibid*, p. 178. See also Alexander Riesenkampff, *The new EC merger control test under Article 2 of the Merger Control Regulation*, *Northwestern Journal of International Law & Business*, Spring 2004 (24/3), p. 719.

⁴⁸ For guidance on defining the relevant market in general see the Commission’s Notice on Market Definition and Richard Whish, *Competition Law*, p. 23-48.

countervailing buyer power. Lastly barriers to entry, i.e. potential competition, will be considered.

3.2.2 Market shares

Market shares are a very important tool for measuring market power.⁴⁹ Some caution must be advised, however, when discussing the value of market shares in establishing dominance. In the absence of statutory monopoly the ECJ in *Hoffmann-La Roche v Commission*⁵⁰ held that large market shares are in themselves evidence of the existence of a dominant position. This statement was however qualified in two ways. First of all, large market shares may in exceptional circumstances not lead to dominance and, secondly, the market share must exist 'for some time'.⁵¹ In *AKZO v Commission*⁵² the ECJ further developed the ruling in *Hoffmann-La Roche v Commission* by stating that a market share of 50% could be presumed to give a company a dominant position.⁵³ This is only a presumption and, as such, is rebuttable.

It is important to note, however, that despite the above presumption findings of dominance below the 50% threshold are possible. An example of this can be found in the CFI's judgment in *British Airways v Commission*,⁵⁴ where the British Airways was considered to control 'only' 39,7% of the market. The court emphasised the fact that British Airways held a large market share in relation to its main competitors, each having under 6% of the UK market,⁵⁵ which contributed to its finding of dominance.

⁴⁹ EC Horizontal Merger Guidelines, paragraph 14.

⁵⁰ *Hoffmann-La Roche & Co AG v Commission* 85/76 [1979].

⁵¹ *Ibid*, paragraph 41.

⁵² *AKZO Chemie BV v Commission* C-62/86 [1991].

⁵³ *Ibid*, paragraph 60.

⁵⁴ *British Airways plc v Commission* T-219/99 [2003].

⁵⁵ *Ibid*, paragraphs 210 and 211.

3.2.3 Countervailing buyer power

Even companies with high market shares post-merger may face difficulty in leveraging its position on the market against its customers in the market and behave independently on the market. This is the case if buyers possess enough bargaining strength vis-à-vis the merged company in commercial negotiations due to their size, their commercial significance to the merged company and their ability to switch to alternative suppliers.⁵⁶ Buyer power may therefore reduce the significance of a high market share.

3.2.4 Barriers to entry

Market shares cannot indicate what competitive pressure is exerted by other companies which may enter the relevant market. Thus, barriers which hinder new market entrants may reinforce an already strong market position.⁵⁷

In the case of *United Brands v Commission*⁵⁸ the ECJ clarified many of the factors which contribute to a finding of dominance. In the case it identified superior technology developed and used by a company⁵⁹ acts as a disadvantage to its competitors and as such is a barrier to entry. Also deep pockets,⁶⁰ i.e. access to the international capital markets, economies of scale,⁶¹ vertical integration⁶² and product differentiation,⁶³ i.e. a strong brand name and heavy advertising expenditure, could all be considered factors which indicate dominance.

⁵⁶ EC Horizontal Merger Guidelines, paragraph 64, and the OFT Assessment of Market Power, p. 24 and 25. Interestingly the US Horizontal Merger Guidelines seem not to mention countervailing buyer power.

⁵⁷ For a general overview see the EC Horizontal Merger Guidelines, paragraph 71.

⁵⁸ See *United Brands Company v Commission*.

⁵⁹ *Ibid*, paragraphs 82-84. This has been confirmed in later cases such as *Hoffmann-La Roche v Commission*, paragraph 48, and *Nederlandische Banden-Industrie Michelin v Commission* 322/81 [1985], paragraph 57.

⁶⁰ *Ibid*, paragraphs 121 and 122.

⁶¹ *Ibid*, paragraph 95.

⁶² *Ibid*, paragraph 70.

⁶³ *Ibid*, paragraphs 91-94.

In addition the court has identified provisions of national legal systems can act as barriers to entry. In *Hugin v Commission*⁶⁴ the ECJ accepted that other firms could not enter the spare parts market for Hugin cash registers since United Kingdom (UK) law offered Hugin design protection for the spare parts. Patent⁶⁵ and copyright⁶⁶ protection have been considered as constituting similar barriers.

The importance of company conduct seems to be increasing in establishing a dominant position.⁶⁷ In a number of cases the Commission has confirmed that previous behavior can be indicative of a company holding a dominant position, for example price discrimination, including discriminatory rebates,⁶⁸ a company's previous ability to behave independently⁶⁹ and to weaken or eliminate competitors.⁷⁰ The fact that a company has excess capacity has also been seen as a factor indicating dominance.⁷¹

The Commission has also considered other factors such as opportunity costs,⁷² overall strength and size⁷³ and the fact that a company may be an obligatory trading partner for others operating in the market.⁷⁴

⁶⁴ *Hugin Cash Registers Ltd v Commission* 22/78 [1979], paragraph 9.

⁶⁵ *Tetra Pak Rausing SA v Commission* T-51/89 [1991] paragraph 23.

⁶⁶ *RTE and ITP v Commission* joined cases C-241/91P and C-242/91P [1995] (*Magill TV listings*), paragraph 47.

⁶⁷ *OFT Guideline 415 Assessment of Market Power* (2004), p. 19 and 20.

⁶⁸ This was confirmed by the ECJ in *United Brands v Commission*, paragraphs 67 and 68. The ECJ's silence on this part of the Commission decision in *Michelin v Commission* is by some interpreted as tacit approval of this, see Richard Whish p. 187.

⁶⁹ *Eurofix-Bauco v Hilti* (Commission Decision) OJ 1998/L 65/19.

⁷⁰ *AKZO v Commission*, paragraph 61.

⁷¹ *Hoffmann-La Roche*, paragraph 48.

⁷² *British Midland v Aer Lingus* (Commission decision) OJ 1992/L 96/34.

⁷³ This was however rejected by the ECJ in *Hoffmann-La Roche v Commission*. It seems therefore that only the size of a company within the market is relevant.

⁷⁴ This notion was confirmed by the CFI in *Deutsche Bahn AG v Commission* T-229/94 [1997], paragraph 57.

Finally, an interesting factor the Commission is also prepared to look at is statements made by company managers. This became clear in *Boosey and Hawkes*,⁷⁵ a Commission decision for interim measures. In this case the managers of Boosey and Hawkes had made some hawkish remarks, stating that its instruments were 'automatically first choice' for top brass bands.⁷⁶ The Commission found this significant in finding Boosey and Hawkes dominant.

It is important to note that the dominance test in EC merger control is usually considered applicable to the merging companies, i.e. the Commission can only prohibit mergers which result in the creation or strengthening of a dominant position by the merging companies. The Commission has, however, in two cases at least considered that dominance could also be applied to companies not participating in the merger, i.e. that the merger of the second and third largest companies in a market actually strengthens the largest.⁷⁷ This theory, however, remains untested by the EC courts.

Having considered the dominance test it now time to look at the challenges which oligopolistic markets present to merger control and the dominance test.

⁷⁵ BBI/Boosey and Hawkes: Interim Measures (Commission Decision) OJ 1998/L 284/36.

⁷⁶ Ibid, paragraph 18.

⁷⁷ Exxon/Mobil (Commission Decision) COMP.M.1383 [1999], paragraphs 225-229, and RWE/Hidroeléctrica del Cantábrico (Commission Decision) COMP.M.2353 [2002], paragraph 10.

4 The oligopoly problem

4.1 Terminology

The term oligopoly, from the Greek words 'oligos' meaning few and 'polein' meaning to sell, in competition law usually implies that there are few competitors in a given market. The notion that there are few competitors in a market, or indeed as a result of a merger the number of competitors diminishes, is easily equated with little or lessening competition. The fact that there are few competitors a market does in economic terms, however, not equate with little or no competition, just as in some markets the competitive market mechanism may fail even with many competitors.⁷⁸

Oligopoly in factual terms, i.e. that there are few competitors, thus theoretically exists somewhere in the broad spectrum between perfect competition and monopoly.⁷⁹ For the purposes of the following discussion, despite its factual meaning, 'oligopolistic markets' will be used to refer to a market with few competitors in which there mechanism of competition has failed, i.e. the oligopoly problem.

4.2 The limits of the single company dominance test

The oligopoly problem refers to a structural problem in a given market, which leads to coordinated behavior of competitors. Essentially, the competitors, due to the way a market is organized, recognize a mutual benefit in aligning their commercial strategies, thus reducing competition. Coordination thus becomes rational behavior in that market. It is important to keep in mind that for the

⁷⁸ This is recognized by the Council of the European Union in the preamble of the 2004 Merger Regulation, paragraph 25. See also the Europe Economics study, p. 9 and 10.

⁷⁹ Richard Whish, *Competition Law*, p. 506.

purposes of the following discussion this alignment is not considered to be explicit, i.e. agreed, but tacit between the competitors. An explicit agreement to coordinate behavior on the market would bring the matter under the ambit of Article 81 TEC, i.e. collusive behavior.⁸⁰ The term 'tacit collusion' is, however, often used to describe what can happen in an oligopolistic market. This has attracted some criticism since the word 'collusion' implies that the companies' behavior, which under the market circumstances can be considered rational, is improper. The term 'tacit coordination' has been suggested⁸¹ in order to avoid any implications which can be deemed improper and this term will be used for the following discussion.

In terms of merger control, a situation which would typically be associated with an oligopolistic problem would be a merger between two of four companies in a market, reducing the number of competitors from four to three. Assuming that the companies have symmetric market shares after the merger, each controlling one-third of the market, it would be difficult for any competition authority to establish that the merger would lead to single company dominance as it was described in chapter 3. This would be due to the fact that the market shares would not be sufficiently high, i.e. in the range of 40-50% at least, and, even if a 33% market share could be said to confer market power in general, all the other competitors would have similar market shares, theoretically being just as powerful. Under the same test, i.e. single company dominance, it would also be difficult to bring evidence that the merger would remove incentives for competition in the market, leading to coordinated behavior of the companies in question. In economic terms this is referred to as

⁸⁰ For a general overview of the implications of collusion between companies under Article 81 TEC see Richard Whish, *Competition Law*, chapter 3.

⁸¹ *Ibid*, p. 508 and 509.

coordinated effects, in EC competition law, however the legal test is referred to as collective dominance.⁸²

4.3 The economics of oligopoly⁸³

4.3.1 Cournot and Bertrand models

The first economists to deal with pricing in oligopolistic markets were two Frenchmen, Cournot⁸⁴ and Bertrand.⁸⁵ They developed two basic models of non-cooperative oligopoly pricing. In the Cournot model, companies seek to maximize profit by setting output, taking their rivals' outputs as given. The predicted outcome of the model is a price between the competitive price and the monopoly price, with the equilibrium price approaching the competitive level as the number of firms increases towards infinity. Under the Cournot model there is a direct, but nonlinear, relationship between prices and concentration, i.e. the number of companies competing, in a market, assuming all else remains equal.

In the Bertrand model, companies compete on price rather than output, seeking to maximize profit by setting price. Assuming companies produce homogeneous products and are able to supply the entire market demand, the Bertrand model predicts an equilibrium price even in a duopoly equal to marginal cost if both companies are equally efficient. If one company's costs are lower than the other's, the model predicts that this one will supply the entire market at a price just below the higher cost company's costs. Under Bertrand, therefore, there is no relationship between price and the number of companies in the market, so long as there are at least two. This result, referred to as the Bertrand paradox, is no longer

⁸² The concept of collective dominance will be discussed in chapter 5.

⁸³ This chapter is to a large degree based on chapter 2 of the Europe Economics study.

⁸⁴ Antoine Augustin Cournot (born 28th August 1801, died 31st March, 1877), philosopher and mathematician.

⁸⁵ Joseph Louis François Bertrand (born 11th March, 1822, died 5th April, 1900), mathematician.

obtained, however, if the companies produce differentiated products, are capacity constrained or have increasing marginal costs so that they are not able to supply entire market.

The important point to note is that both models assume a static, one-period game (i.e. one round of competition), in which there is no possibility of coordination. Absent coordination both models predict prices, even in highly concentrated oligopoly markets, that are well below the profit-maximizing monopoly price. What this means is that companies will always be able to increase their profits if they can successfully coordinate to set output and price where a monopolist would.

4.3.2 The Nash equilibrium

The next step in oligopolistic economic theory came with John Nash.⁸⁶ His model, based on game theory and referred to as the Nash equilibrium, essentially provides that in any game a set of strategies can represent an equilibrium only if, holding the strategies of all other companies constant, no company can obtain a higher profit by choosing a different strategy.⁸⁷ Building on this model, economists showed that oligopoly behavior can be modeled on the standard prisoners' dilemma game,⁸⁸ where both players are better

⁸⁶ John Forbes Nash Jr. (born 13th June, 1928), American mathematician who works in game theory and differential geometry.

⁸⁷ For his theory Nash was awarded the Nobel prize.

⁸⁸ The prisoner's dilemma is typically presented in the following manner: Two suspects, A and B, are arrested by the police. The police have insufficient evidence for a conviction, and, having separated both prisoners, visit each of them to offer the same deal: if one testifies for the prosecution against the other and the other remains silent, the betrayer goes free and the silent accomplice receives the full 10-year sentence. If both stay silent, the police can sentence both prisoners to only six months in jail for a minor charge. If each betrays the other, each will receive a two-year sentence. Each prisoner must make the choice of whether to betray the other or to remain silent. However, neither prisoner knows for sure what choice the other prisoner will make. Prisoner A considers his best move. If his partner B stays quiet, his best move is to betray as he then walks free instead of receiving the minor sentence. If his partner betrays, his best move is still to betray, as by doing it he receives a relatively lesser sentence than staying silent. Considered collectively, the best choice for both would be to cooperate since this would offer both the minimum time spent in jail.

off if they cooperate, but each player is still better off if he defects and the other cooperate.

What makes coordination possible is that companies interact over a period of time, so that a player who is tempted to cheat knows that its gains may be short-lived if the other players detect and punish his defection.⁸⁹ One of the most important lessons learned from game theory, therefore, is that coordination can be a Nash equilibrium only in multi-period games⁹⁰ where there is repeated interaction between the players so that a player who cheats in one period risks punishment in later periods. And for a threat of punishment to be credible, a punishment strategy must itself represent a Nash equilibrium at the time it is undertaken. Game theorists showed that if the game continues forever, cooperation is always a Nash equilibrium strategy. They also showed, however, that if the game has a certain endpoint, no matter how far out, a kind of daisy-chain reaction sets in, again making cheating in every period the only Nash equilibrium strategy. Their models showed, however, that once you introduce uncertainty as to the number of periods, coordination can again become the Nash equilibrium strategy.

4.3.3 Modern Oligopoly Theory

George Stigler⁹¹ provided the next major contribution by investigating market conditions that would be conducive to coordinated pricing.⁹² He focused on what prevents companies from coordinating, given that it would be profitable to do so. He concluded that the major

⁸⁹ Again the prisoner's dilemma can be used to describe this: Assume that the prisoners engage in multiple rounds of the game, i.e. they must repeatedly make the choice of betraying or cooperating, and that they retain memory of the other prisoner's choice. During repeated interaction each prisoner thus has an opportunity to "punish" the other player for previous non-cooperative play. Cooperation may then arise as an equilibrium outcome. The incentive to defect may then be overcome by the threat of punishment, leading to the possibility of a cooperative outcome.

⁹⁰ Referred to as supergames if the number of periods is infinite.

⁹¹ George Joseph Stigler (born 17th January, 1911, died 1st December, 1991), American economist.

⁹² For his theories he also was awarded a Nobel prize.

obstacle to coordination is the cost of information and of coordinating. Stigler considered the Cournot and Bertrand models as very unsatisfactory theories because they assumed rather than deduced behavior. Stigler pointed out that the extant models failed to offer a robust answer to the relationship between prices and the number of competitors. To correct this problem, Stigler focused attention on the key question of what prevents companies from coordinating in numerous settings, pointing out that information is not a free good: it takes buyers and sellers real resources to find out information about prices, qualities, demands, etc. The main implication of this is that rational buyers and sellers will, in equilibrium, demand information only up to the point where marginal benefits equal marginal costs. Essentially this leads to companies being incompletely informed when they act on a market. Stigler's research led to him identifying three critical elements necessary for coordination in an oligopolistic market: the ability to reach agreement, to detect cheating, and to punish deviations. This focused attention away from market concentration alone and toward other market factors that served to facilitate coordination in a market. He came also to the conclusion that coordination can take many forms and that the cost of coordination may vary widely across them.

Obviously, many other economists have advanced the studies of oligopolistic markets. It should be mentioned, however, that the recent focus of economists has shifted to what they refer to as a 'maverick', i.e. a company that declines to follow the oligopolistic market consensus and thereby reduces the effectiveness of any coordination.⁹³ Essentially, the theory argues that the loss of a

⁹³ William J. Kolasky (deputy assistant attorney general, US DOJ antitrust division), *Coordinated effects in merger review: From dead frenchmen to beautiful minds and mavericks*, (speech) DOJ, 2002.

maverick is likely to facilitate coordination, unless another company is positioned to assume the role of maverick after a merger.⁹⁴

Having reviewed the basic economic theories on oligopolistic markets the next chapter will look at collective dominance and coordinated effects.

⁹⁴ Application of the 'maverick' theory is mentioned on numerous occasions in the Irish Merger Guidelines, mainly paragraphs 4.14 (e) and 4.24, and the EC Horizontal Merger Guidelines, paragraphs 20 (d) and 41.

5 Collective Dominance

5.1 Origin of collective dominance

Chapter 4 above described in economic terms why oligopolistic markets can have harmful effects on the competitive process and represent a challenge for competition authorities when conducting merger control. This chapter will describe how the collective dominance test has developed under EC merger control to cover those difficult situations.

Just as with the single dominance test under merger control, collective dominance in merger control has its 'origin' under the dominance concept of Article 82 TEC. In recalling the substantive provision of Article 82 TEC, it says that “*Any abuse by one or more undertakings of a dominant position within the common market [...] shall be prohibited [...]*”⁹⁵ At first there was doubt whether the phrase ‘one or more undertakings’ referred to one or more companies within the same corporate group, as seen in the *Continental Can* case,⁹⁶ i.e. a narrow view, or if it referred that more economically independent companies could be held to hold a collective dominant position, i.e. a wide view.

In the *Italian Flat Glass*⁹⁷ case the Commission had claimed that a number of Italian flat glass producers held a collectively dominant position in that market and that they had abused their position. Although the CFI rejected that the companies held a collectively dominant position in that particular case, it nevertheless confirmed

⁹⁵ Emphasis added.

⁹⁶ *Europemballage & Continental Can v Commission* 6/72 [1973]. In this case three different companies were involved, Continental Can (a US company), SLW (its German subsidiary) and Europemballage (also a subsidiary). This group acquired a fourth company, TDV. The overall position of these companies on the market led the Commission to the finding of dominance.

⁹⁷ *Società Italiana Vetro SpA v Commission* T-68/89 [1992].

that theoretically the wide view applied, i.e. that the companies could be economically independent from each other and yet hold a collectively dominant position.⁹⁸ The CFI did not lay out a test for collective dominance, but in quoting the single dominance test in *Hoffmann-La Roche* case,⁹⁹ mentioned 'links' such as joint agreements, licenses and a technical lead which could allow companies to behave independently of their competitors, customers and ultimately of their consumers.¹⁰⁰

5.2 Towards a test of collective dominance

Two years after *Italian Flat Glass* the judgment in the *Almelo* case¹⁰¹ also gave a hint of what conditions had to be fulfilled in the eyes of the European courts for companies to be considered collectively dominant. Again 'links' were mentioned and that these links would have to lead to the companies adopting the same conduct on the market.¹⁰²

The next important development under Article 82 TEC came six years later with the ECJ's judgment in *Compagnie Maritime Belge v Commission*.¹⁰³ In this case the Commission had found that a group of shipping lines, that were members of a liner conference, had abused their collectively dominant position. The ECJ concurred, stating that a collectively dominant position implies that the position may be held by two or more economic entities legally independent of each other, provided that from an economic point of view "[...] *they present themselves or act together on a particular market as a*

⁹⁸ Ibid, paragraph 358.

⁹⁹ *Hoffmann-La Roche & Co AG v Commission* 85/76 [1979].

¹⁰⁰ Ibid, paragraph 38 and 42.

¹⁰¹ *Almelo v NV Energiebedrijf Ijsselmij* C-393/92 [1994].

¹⁰² Ibid, paragraph 42. In paragraph 43 the ECJ left it to the national court to consider whether these links existed in the case.

¹⁰³ *Compagnie Maritime Belge Transports SA v Commission* 395/96 P [2000].

collective entity."¹⁰⁴ Next, the court stated that in order to establish collective dominance it is necessary to examine "[...] *the economic links or factors which give rise to a connection between the undertakings concerned [...]*" and whether these links enable the companies to behave independently of their competitors.¹⁰⁵ Furthermore, the ECJ stated that agreements, between the companies thought to hold a dominant position, do not in themselves mean that they are dominant, but they might if the agreements cause the companies to appear as a collective entity.¹⁰⁶ Lastly it added that the existence of an agreement should not be seen as "[...] *indispensable to a finding of collective dominant position; such a finding may be based on other connecting factors and would depend on an economic assessment [...], in particular, [...] of the structure of the market in question.*"¹⁰⁷ This was a very important judgment regarding collective dominance. Further development of the legal test, however, proceeded under the 1989 Merger Regulation, including the *Kali & Salz* judgment, considered below.

5.3 Collective dominance under the 1989 Merger Regulation

5.3.1 France v Commission

Before the judgment in *Compagnie Maritime Belge* the 1989 Merger Regulation had come into effect. Since the wording of Article 2(3) of the 1989 Merger Regulation did not mention dominance by 'one or more' companies one initial issue was whether or not collective dominance came under the scope of the regulation. In *France v Commission* (often referred to as *Kali & Salz*),¹⁰⁸ a case regarding a merger between two German companies in the potash sector, the ECJ had an opportunity to decide on the matter. The Commission

¹⁰⁴ Ibid, paragraph 36.

¹⁰⁵ Ibid, paragraphs 41 and 42.

¹⁰⁶ Ibid, paragraphs 43 and 44.

¹⁰⁷ Ibid, paragraph 45.

¹⁰⁸ France, SCPA and EMC v Commission C-68/94 and C-30/95 [1998].

had concluded that the merged company would obtain a collectively dominant position with another company. It based its finding mainly on structural links between the companies, among these a joint venture in Canada and an export cartel which they operated. The ECJ quashed the Commission's decision, but firmly rejected any arguments that the 1989 Merger Regulation did not apply to collectively dominant positions.¹⁰⁹

Some interesting remarks were made by the ECJ regarding collective dominance, among these that the presumption of dominance once companies reach 50% market share only applies to single company dominance and not collective dominance.¹¹⁰ Also, the court emphasised that the Commission had a duty to show that the companies, because of factors which give rise to a connection between them, could significantly impede competition by adapting a common policy on the market and thus act independently of their competitors, customers and consumers.¹¹¹

The next significant development came in *Gencor Ltd v Commission*.

5.3.2 Gencor v Commission

In *Gencor Ltd v Commission*¹¹² the Commission had prohibited a merger between two South African companies in the platinum group metals sector, Gencor Ltd. and Lonrho Ltd. The Commission considered that the merger, which created Implats Ltd., a company jointly owned by Gencor and Lonrho, would create a collectively dominant position for Implats and Amplats Ltd., a separate South African company selling platinum metals, on the common market. On appeal the CFI upheld the Commission's decision.

¹⁰⁹ Ibid, paragraphs 169-172.

¹¹⁰ Ibid, paragraph 226.

¹¹¹ Ibid, paragraph 221.

¹¹² *Gencor Ltd v Commission* T-102/96 [1999].

The court commented among other things on the structural links, stating that in *Italian Flat Glass* it had not required that the Commission show structural links between the companies holding the collective dominant position. Structural links should be seen as an example of factors which could lead to collective dominance.¹¹³ Furthermore, the economic links that need to be considered should not be limited to structural links.¹¹⁴ The court did not explain what structural and economic links are, neither did it explain what the difference between the two is. However, it did explain the market conditions necessary for tacit coordination, namely that market concentration, transparency and product homogeneity can put companies in a “[...] *position to anticipate on another’s behavior* [...]” and encourage them to align their conduct on the market, so “[...] *as to maximise their joint profits by restricting production with a view to increasing prices.*”¹¹⁵ It went on to explain that “[i]n such a context, *each trader is aware that highly competitive action on its part designed to increase its market share (for example a price cut) would provoke identical action by the others, so that it would derive no benefit from its initiative.*”¹¹⁶

In *Gencor v Commission* the CFI identified some of the key economic effects which give rise to coordinated effects as described by Stigler,¹¹⁷ namely few competitors, a transparent market and a credible possibility for retaliatory action on behalf of others in the oligopoly. In *Airtours plc v Commission* the CFI clarified this further.

5.3.3 Airtours v Commission

In *Airtours plc v Commission*¹¹⁸ the Commission had prohibited a merger between Airtours and First Choice, both operating in the

¹¹³ Ibid, paragraph 273.

¹¹⁴ Ibid, paragraph 275.

¹¹⁵ Ibid, paragraph 276.

¹¹⁶ Ibid.

¹¹⁷ See chapter 4.3.3.

¹¹⁸ *Airtours plc v Commission* T-342/99 [2002].

package holiday sector. The Commission argued that Airtours' takeover of First Choice would create a collectively dominant position between the merged company and two other companies, Thomas Cook and Thompson Travel Group, on the market for short-haul package holidays from the UK. Together these firms would control 80% of the market.

The CFI annulled the Commission's decision. In the judgment the court gave a clear formulation of collective dominance as regards merger control. It stated that a merger creates a collectively dominant position where it "[...] *would make each member of the dominant oligopoly, as it becomes aware of common interests, consider it possible, economically rational, and hence preferable, to adopt on a lasting basis a common policy on the market with the aim of selling at above competitive prices, without having to enter into an agreement or resort to a concerted practice within the meaning of Article 81 [T]EC [...] and without any actual or potential competitors, let alone customers or consumers, being able to react effectively.*"¹¹⁹ This is a clear description of tacit coordination.¹²⁰

More importantly the CFI laid down three conditions for a finding of collective dominance:¹²¹ First of all, the market in question must be transparent. The market structure must allow each member of the oligopoly to observe and know how the other members will behave in the market. Importantly, the members must be able to detect if other members deviate from the common policy. Secondly, the coordination must be sustainable over time. This requires incentives to keep the members from deviating. An important element of this requirement is that any deviation, for example a drop in prices, will be met with retaliatory actions, essentially cancelling out any potential gain of the deviation. Thirdly, it must be established that current and

¹¹⁹ Ibid, paragraph 61.

¹²⁰ See chapter 4.2.

¹²¹ Airtours v Commission, paragraph 62.

future competitors, as well as consumers, will not endanger the coordination. All of these criteria must be fulfilled and proven with 'convincing evidence'.¹²² The court stated that the Commission had not succeeded in this, its main criticism being that the assessment of evidence in the decision had been flawed.

Some authors claim that one of the reasons for the Commission's failure in the case was that it had attempted to stretch the concept of collective dominance, beyond the scope envisaged by the European courts, to include unilateral effects.¹²³

An important thing also to note from the judgments discussed in this chapter is that the CFI does not seem to differentiate between the test for collective dominance under Article 82 TEC and collective dominance under Article 2(3) under the 1989 Merger Regulation.

5.4 Collective dominance under the 2004 Merger Regulation: Coordinated effects

Under the 2004 Merger Regulation the Commission now refers to coordinated effects as one of two ways in which a merger may significantly impede effective competition in a market "[...] by *changing the nature of competition in such a way that firms that previously were not coordinating their behaviour, are now significantly more likely to coordinate and raise prices or otherwise harm effective competition.*" Also a "[...] merger may also make *coordination easier, more stable or more effective for firms which were coordinating prior to the merger.*"¹²⁴ In describing coordinated effects in its merger guidelines, the Commission essentially repeats the conditions set out by the CFI in *Airtours v Commission* for a

¹²² *Airtours v Commission*, paragraph 63.

¹²³ Richard Whish, *Competition Law*, p. 537. This will be considered further in chapter 6.3.4.3.

¹²⁴ EC Horizontal Merger Guidelines, paragraph 22.

finding of collective dominance,¹²⁵ i.e. market transparency,¹²⁶ sustainability of the coordination through deterrence¹²⁷ and no possibility of outside intervention.¹²⁸ The commission then analyses each further, giving its interpretation of the law as it stands and how it intends to apply the test. The conclusion can be drawn from this is that the collective dominance test covers the coordinated effects of mergers.¹²⁹

Having looked at how EC merger control has reacted to the challenge posed by coordinated behavior post-merger in oligopolistic markets the last chapter will look at the possibilities for unilateral behavior in oligopolistic markets after a merger.

¹²⁵ Ibid, paragraph 41.

¹²⁶ Ibid, paragraphs 45-51.

¹²⁷ Ibid, paragraphs 52-55.

¹²⁸ Ibid, paragraphs 56 and 57.

¹²⁹ Riesenkampf, *The new EC merger control test under Article 2 of the Merger Control Regulation*, p. 721.

6 Unilateral effects

6.1 Introduction

As we have seen in the preceding chapters, mergers can substantially change the structure of a market. This is especially true in oligopolistic markets where the disappearance of one or more competitors through a merger can remove competitive restraints, making it easier for the remaining companies to tacitly coordinate their behavior and raise prices by restricting output and/or reducing quality.

Additionally, an effect of a merger in an oligopolistic market is said to be, that the merged company has the ability to unilaterally raise profits by raising prices, reduce quality or output, i.e. without the need for tacit coordination. In the preamble to the 2004 Merger Regulation is says that “[...] *under certain circumstances, concentrations involving the elimination of important competitive constraints that the merging parties had exerted upon each other, as well as a reduction of competitive pressure on the remaining competitors, may, even in the absence of a likelihood of coordination between the members of the oligopoly, result in a significant impediment to effective competition.*”¹³⁰

It could be argued that semantically this description is close to the definition of single company dominance given by the ECJ in *United Brands v Commission* in that it affords the company “[...] *the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers*”¹³¹ once the competitive restraints have been removed through the merger. The EC

¹³⁰ Preamble to the 2004 Merger Regulation, paragraph 25.

¹³¹ *United Brands Company v Commission*, paragraph 64. The term ‘unilateral effects’ also conveys the same idea.

Horizontal Merger Guidelines specifically mention that unilateral effects involve an increase in market power.¹³² The interesting point to note is that the preamble to the 2004 Merger Regulation specifically mentions that unilateral effects can involve both the merged company and any or all of the remaining companies in the market, i.e. those companies that did not merge, in a similar way to collective dominance, i.e. coordinated effects.

The scope of dominance is clearly included within unilateral effects and is, perhaps obviously, considered as a significant impediment to effective competition.¹³³ However, some of the scope of unilateral effects seem to go beyond dominance in the sense that a merger, which does neither lead to single nor collective dominance, as the legal term has developed in the EC, can non the less give rise to unilateral effects in a market. Unilateral effects also go beyond single company dominance in that they can involve the companies remaining in the market and not participating in the merger.

In light of the partially shared scope of dominance and unilateral effects and the immediate similarities between the two it is first necessary to look at the economic theory on unilateral effects.

6.2 The economics of unilateral effects: beyond dominance¹³⁴

As we have seen above unilateral effects and dominance are based upon the same notion, i.e. that companies can unilaterally increase profits by reducing output or quality. A dominant position, and thus unilateral effects, can be created, in principle, in any market. Those unilateral effects which go beyond dominance, however, are

¹³² EC Horizontal Merger Guidelines, paragraph 22.

¹³³ Preamble to the 2004 Merger Regulation, paragraph 24. See also John Fingleton & Dermot Nolan, *Mind the Gap: Reforming the EU Merger Regulation* in Mercato Concorrenza, Regole, May 2003, p. 20.

¹³⁴ This chapter is to a large degree based on chapter 3 of the Europe Economics study.

associated with oligopolistic markets only, the merger creating 'more tightly knit oligopolies'.¹³⁵ The important difference between coordinated effects, i.e. collective dominance which allows companies in oligopolistic markets to more easily tacitly coordinate their behavior, and unilateral effects is thus that there is no need for market conditions which allow for the sustainability of the coordination. In other words, there is no necessity for a retaliatory mechanism in the market which maintains the coordination of the behavior of the members of the oligopoly,¹³⁶ since there is no incentive to deviate from the new market equilibrium. In economic terms unilateral effects can be defined as the shift from one market equilibrium to another, following a merger, which does not lead to collusion in the market but which nevertheless results in higher prices.

The Cournot model, which predicts behavior in homogeneous product markets with companies competing on quantity, the Bertrand model, which predicts behavior in differentiated product markets with companies competing on price and the Nash equilibrium may be used to explain unilateral effects in oligopolistic markets.

6.2.1 Cournot and homogeneous markets

Under the Cournot model a market in which a single company operates, i.e. a monopoly market, that company can charge monopoly prices. As the number of companies is increased the prices in the market lower, i.e. the more companies are in a market the closer the price comes to prices in perfect competition. Another prediction the model makes is that prices and profitability fall as total market output rises. Thus, a company's best response to an increase in output by a competitor is to reduce its own output. Therefore, a natural consequence of a merger could be that the merged company

¹³⁵ Europé Economics study, p. 50.

¹³⁶ See chapter 5.3.3 and *Airtours v Commission*, paragraph 62.

will reduce output after the merger. Some of this reduction will be offset by the remaining competitors by an increase in output, however, this offset is only partial, since it will not be profitable for them to increase output to match the pre-merger level. However, although in general the assumption can be made that mergers in homogeneous product markets will always lead to less competition and a reduction in general consumer welfare, this presumption can sometimes be misleading. The overall effect depends on the cost structures of both the merging and non-merging companies. In the Cournot model larger companies have lower marginal costs, so if output is shifted to these companies after a merger general welfare may increase, even if prices are raised.¹³⁷

To sum up, those factors that lead to unilateral effects according to the Cournot model are markets in which companies have a choice of output and produce homogeneous products. The extent of the unilateral effects is decided by level of concentration in the market, the ability to raise prices, different cost functions and efficiency gains. Each will be considered in turn.

6.2.1.1 Level of concentration

This has already been discussed above. In the Cournot model the extent of unilateral effects is increased as the number of competitors in a market decreases.

6.2.1.2 Ability to raise prices

The ability of the companies remaining in a market after a merger depends mainly on four factors. First of all, if the price elasticity of demand is low, i.e. high switching costs, consumers will face difficulty in substituting with other products, thus giving the remaining companies the opportunity to raise prices. Secondly, if consumers do not possess buyer power, for example because they themselves are not concentrated, there will not be a perceivable threat of consumers

¹³⁷ Europé Economics study, p. 53.

switching to other buyers if prices are raised. Thirdly, the less likely it is that a new company enters the market following a merger, for example due to high sunk costs incurred in market entry, the easier it will be to raise prices. Fourthly, it is necessary to consider the increase in marginal costs, required for increasing output. If marginal costs are high, competitors to the merged company will have less opportunities for increasing their output following a merger, in turn allowing the merged company to increase prices. This then has the effect of allowing for an overall increase in price in the market as the other firms follow the market leader.

6.2.1.3 Different cost functions

The extent of unilateral effects may also depend on the difference in the cost structures of competitors after a merger. As was discussed earlier, consumer welfare will according to the Cournot model always decrease after a merger in a homogeneous product market.

However, general welfare may increase, even if prices on the market rise, if production is switched from high cost producers to low cost producers after a merger. This is however unlikely to happen if the remaining competitors have similar cost structures. The merger would then result in both a detriment to consumers and general welfare.¹³⁸

6.2.1.4 Efficiency gains

Gains in company efficiency, essentially learning and achieving economies of scale,¹³⁹ after a merger may offset some or all of the increase in market power or loss in competition resulting from a merger. Efficiency gains reduce the cost of producing each 'unit' of product sold and thus it may be profitable for the merged company to

¹³⁸ The Europé Economics study (p. 56) states that the implication for merger control is essentially a question of preference for the competition authority controlling the merger. If the focus is on consumer welfare then all horizontal mergers in homogeneous product markets, which do not produce sufficient efficiency gains (see chapter 6.2.1.4) can be considered problematic, depending of course on the extent of unilateral effects.

¹³⁹ Note that this does not include the gains in a switch from high cost production to low cost production.

reduce prices and attract new customers.¹⁴⁰ It follows that the less the efficiency gain is from a merger the less the likelihood of lower prices after a merger.

6.2.2 Bertrand and differentiated markets

The Bertrand model may be a more relevant model to base predictions of merger outcomes since most markets are arguably differentiated, i.e. the products offered on the market by companies are not perfect substitutes in a strict sense, for example due to different branding. In a differentiated market the Bertrand model assumes that consumers will not be indifferent in choosing between two products at equal prices, as they would be in a homogeneous market, since the products are, in their eyes, not perfect substitutes. In such a market companies base their pricing structures on trying to maximise profits given the prices charged by their competitors. The model foresees that an increase in price by one company will influence the others to also increase price. Essentially a merger in a differentiated market eliminates some competition, just as under Cournot, and increases the market power of the merging company and perhaps also of its competitors.

While the products in a differentiated market are not considered perfect substitutes by consumers, they do represent close substitutes for one another. Thus, a price increase for one product, i.e. their first choice, will eventually push consumers to another product, i.e. their second choice. Assuming that these are two differentiated products which now, due to a merger, come under the same ownership, a loss of sale due to a price increase on one of the products is now likely to be captured by the same company, thus giving the company incentive to unilaterally increase prices for both products. This holds especially true if the products are considered close substitutes by

¹⁴⁰ The European Economics study (p. 56) emphasises however that it is necessary to differentiate between savings in variable costs and fixed costs, since only savings in variable costs will directly affect the cost of producing the unit of good.

consumers, i.e. their first and second choice for purchasing products in that market.¹⁴¹ Companies that do not merge, which products also represent close substitutes, therefore may also have an incentive to increase prices.

The above scenario of unilateral effects in a differentiated product market can be influenced by competitors choosing a strategy of repositioning their brand closer to the brands of the merging companies after the merger.¹⁴² Also, likelihood of new market entry may dampen unilateral effects in this type of market. Efficiency gains must also be considered as under Cournot.

6.2.3 Nash equilibrium and unilateral effects

The Nash equilibrium can also be used to explain unilateral behavior in oligopolistic markets. Each firm chooses its price, or other variable in which competition occurs,¹⁴³ given the prices of its rivals. In other words, each firm's price is a best reaction to the prices that the others are setting. This creates a new equilibrium in the market after a merger. When two firms merge, their best response reaction function shifts upward. In other words, even if rivals did not change their prices, the merged firm would still find it profitable to set a higher price. The size of this price rise will depend upon a variety of factors, including the number of firms in the market, i.e. concentration of the market, the substitutability of the products, etc. However, non-merging rivals will react to the raised prices, and this process of reaction and counterreaction by the merged firm will result in a new equilibrium, simply due to a change in the competitive equilibrium after a merger.

¹⁴¹ The ratio at which the company can in this manner 'recapture' lost sales after a merger is referred to as the Diversion Ratio. The closer substitutes the products are, i.e. consumers consider them their first and second choice, the higher the ratio. The Diversion Ratio can be used to predict price rises after a merger in differentiated product markets.

¹⁴² This choice is considered unlikely since it is much easier and more profitable to just increase prices (Europé Economis study, p. 62)

¹⁴³ For example quality, output etc.

6.2.4 Comparing dominance and unilateral effects: Similarities and beyond

In comparing single company dominance and unilateral effects in economic terms, the similarities become immediately apparent. Both economic notions identify many, if not most, of the same parameters. The central notion, after all, is the same; after a merger it becomes easier for the merged company to unilaterally raise prices since its market power increases. A strong market share, is also of importance in both economic notions. Generally, market power increases with increased concentration and thus the possibility for unilateral price increases. Factors such as likelihood of entry, price elasticity and buyer power therefore are important when considering a merger under both tests. The dominance test can thus be said to fall within the scope of unilateral effects.

Some differences are also apparent. First of all unilateral effects can in theory apply both to the merging companies and those not participating in the merger. The single company dominance test is generally only applied to the merging companies.¹⁴⁴ Efficiency gains have not featured prominently in the dominance test as applied by the Commission, but these play an important role in unilateral effects analysis, since essentially the existence of efficiency gains, if significant, will reduce the incentive of the merged company to raise prices. Essentially, as each 'unit' is produced at a cheaper price the incentive may shift from raising prices to increasing output in order to capture a larger share of the market. Also, in a situation involving a horizontal merger in a differentiated product market, arguably the most common situation in mergers, it will be important to consider if consumers consider the products of the merging companies as close substitutes. The most significant theoretical difference is, however, twofold. First of all significant unilateral effects may result after

¹⁴⁴ This is considered a significant difference by some authors. See Marc Ivaldi et al., *The Economics of Unilateral Effects*, Interim Report for DG Competition, 2003, p. 55.

mergers which create lower market shares than associated with single company dominance.¹⁴⁵ Also, mergers between non-dominant companies may create substantial unilateral effects if another company can be considered dominant.¹⁴⁶ Theoretically, unilateral effects analysis takes into account a 'greater range of anti-competitive outcomes' than the dominance test.¹⁴⁷ If applied in this way, the introduction of unilateral effects analysis to EC merger control may have significant consequences for companies considering mergers.

To summarise; unilateral effects essentially occur in all markets after a horizontal merger. Companies in a market in which a horizontal merger takes place will, according to economic theory, always be able to raise prices. The question is how extensive these unilateral effects will be following a merger, i.e. to what degree the companies in a market can raise prices after the merger. A negligible raise will in effect not change much for consumers in the market. But, at which point is the extent of unilateral effects sufficient for being considered a significant impediment to competition, i.e. how much must companies be able to raise prices following a merger for this to be considered 'substantial' enough to fall under Article 2(3) of the 2004 Merger Regulation? It is this question of degrees, essentially a question of quantifying unilateral effects, especially those which go beyond dominance, which makes unilateral effects complicated for application in merger control. What seems to be clear from economic theory, is that those unilateral effects, which go beyond dominance in particular, only apply to oligopolistic markets.

¹⁴⁵ Ibid, p. 56. The model employed by the authors predicts an increase in price up to 5,2% under specific conditions in a market with four competitors post-merger having symmetric market shares, i.e. 25% each.

¹⁴⁶ Ibid, p. 57. The authors take the example of two companies with 20% market shares merging. Another company has 60% and would be considered dominant. The merger thus does neither create nor strengthen a dominant position of the merging companies. Theoretically, however, the merger would increase the dominant company's market power significantly under certain conditions, giving it the ability to raise prices by up to 6,75%.

¹⁴⁷ Ibid.

The next section will attempt to discover if the EC legal test, and the guidelines, offer any clarity as to when this level is reached.

6.3 Is there a legal test for those unilateral effects that go beyond dominance?

6.3.1 The substantive provisions in EC law

Article 2(3) of the 2004 Merger Regulation reads: "*A concentration which would significantly impede effective competition, in the common market or in a substantial part of it, in particular as a result of the creation or strengthening of a dominant position, shall be declared incompatible with the common market.*"

The reason given for the change in Article 2(3) is that it is to ensure that those unilateral effects, which go beyond dominance, are covered by the rule in 2(3). As stated in the preamble to the 2004 Merger Regulation: "*The Community courts have [...] not to date expressly interpreted [the 1989 Merger Regulation] as requiring concentrations giving rise to [...] [unilateral] effects to be declared incompatible with the common market. Therefore, in the interests of legal certainty, it should be made clear that this Regulation permits effective control of all such concentrations by providing that any concentration which would significantly impede effective competition, in the common market or in a substantial part of it, should be declared incompatible with the common market. The notion of 'significant impediment to effective competition' in Article 2(2) and (3) should be interpreted as extending, beyond the concept of dominance, only to the anti-competitive effects of a concentration resulting from the [unilateral] behaviour of undertakings which would not have a dominant position on the market concerned.*"¹⁴⁸ From this text it is clear that the only purpose of the change is to extend the Commission's powers to control mergers beyond dominance to those

¹⁴⁸ Preamble to the 2004 Merger Regulation, paragraph 25, emphasis added.

unilateral effects which involve non-dominant companies, whether they are a part of the merger or not.¹⁴⁹ Leaving coordinated effects, i.e. collective dominance, aside what also seems clear is that it implies a two pronged test, or combined test for mergers, one comprises of the dominance test and the other tests those unilateral effects which go beyond dominance,¹⁵⁰ presumably if dominance is not found.

In light of the above it can be said that the substantive provisions of the 2004 Merger Regulation do not provide an answer to the question posed above regarding the extent, or quantity, of unilateral effects necessary for a merger to be considered a substantial impediment to competition if the merger does not result in a dominant position.

6.3.2 EC Horizontal Merger Guidelines

The EC Horizontal Merger Guidelines consider unilateral effects in paragraphs 24-38. Essentially the guidelines list all of the factors mentioned above,¹⁵¹ emphasizing that now the effect on non-merging firms, especially in oligopolistic markets, will also be considered.¹⁵² They also confirm in a general manner that unilateral effects are not dependent on particularly large market shares, as is the case with dominance.¹⁵³ As these factors are explained by the Commission, it quotes a rather extensive body of its own case law. This implies that the Commission already has experience in analysing unilateral effects, but an analysis of the cases reveals a more 'sobering'

¹⁴⁹ See chapter 6.2.

¹⁵⁰ Jean-Cyril Bermond, *Test de dominance et effets unilatéraux* in *Revue de Droit des Affaires Internationales* (International Business Law Journal), 1/2004, p. 77.

¹⁵¹ See chapter 6.2. Essentially the guidelines refer to large market shares, that the merging companies are close competitors, limited possibilities for consumers to switch suppliers, unlikely that competitors will increase supply if prices rise, the merged company could hinder competitors in increasing supplies and that the merger eliminates an important factor that contributes to competition.

¹⁵² EC Horizontal Merger Guidelines, paragraph 25.

¹⁵³ *Ibid*, paragraph 37.

picture,¹⁵⁴ with most of the cases involving market shares in excess of 60% following the merger, i.e. fairly clear cases of dominance. One case featured a resulting market share of 40%, but this still would have left the merged company with a market share more than twice the size of its closest competitor.¹⁵⁵ Some of the cases do, however, show that the Commission has undertaken analysis of how close substitutes consumers consider the merging products in order to reinforce its decision to prohibit the merger in light of the resulting high market shares.¹⁵⁶ In other cases the Commission has cleared mergers which resulted in high market shares, but justified its decision by showing that consumers considered the merging products not to be close substitutes, i.e. not being their first and second choice.¹⁵⁷

The guidelines, furthermore give some indication as to at which concentration levels the Commission is likely to be concerned. Using the Herfindahl-Hirschmann Index (HHI)¹⁵⁸ the Commission considers that it is unlikely to identify horizontal competition concerns in a market with a post-merger HHI below 1.000.¹⁵⁹ If certain conditions are met the Commission also considers itself unlikely to be concerned in a merger with a post-merger HHI between 1.000 and 2.000 and a change below 250, or a merger with a post-merger HHI above 2.000 and a change below 150.¹⁶⁰

¹⁵⁴ See Sven B. Völcker, *Mind The Gap: Unilateral Effects Analysis Arrives in EC Merger Control* in European Competition Law Reveiw, 7/2004, p. 398

¹⁵⁵ *Dupont/ICI* (Commission Decision) IV/M.984 [1992].

¹⁵⁶ See in particular *Siemens/Drägerwerk/JV* (Commission Decision) COMP.M.2861 [2003] and *GE/Instrumentarium* (Commission Decision) COMP.M.3083 [2003].

¹⁵⁷ See in particular *Volvo/Renault* (Commission Decision) COMP.M.1980 [2000] and *Philips/Agilent Health Care Solutions* (Commission Decision) COMP.M.2256 [2001].

¹⁵⁸ HHI is calculated by summing the squares of the individual market shares of all the firms in the market. The HHI gives proportionately greater weight to the market shares of larger companies. Very small firms thus have very little impact on the HHI. The level of the HHI can give an initial indication of the competitive pressure in the market. The change in the HHI, i.e. difference in HHI before and after the merger, (referred to as the 'delta') can be a useful proxy for the change in concentration after the merger.

¹⁵⁹ EC Horizontal Merger Guidelines, paragraph 19.

¹⁶⁰ *Ibid*, paragraph 20.

Although the Article 2(3) of the 2004 Merger Regulation and the EC Horizontal Merger Guidelines taken together seem to give unilateral effects analysis in EC merger control a clear legal basis,¹⁶¹ neither give any indication of to what extent these effects must be present post-merger for the merger to be considered a significant impediment to competition. For example, at which level of market shares the Commission will begin considering that unilateral effects will have a significant impact or to what extent the merging companies, not to mention those not participating in the merger, must be able to raise prices unilaterally for this to be considered significant.¹⁶²

Seeing as the EC substantive provision and the guidelines do not give satisfactory answers regarding the quantification of those unilateral effects which go beyond dominance, it seems pertinent to seek answers in material from two other jurisdictions, with experience in applying the unilateral effects theory, the US and Ireland, which has recently adopted a SLC type test for merger control.

6.3.3 Other jurisdictions

6.3.3.1 US Horizontal Merger Guidelines

The US merger guidelines give some guidance regarding unilateral effects similar to those found in the EC guidelines.¹⁶³ Essentially the US guidelines consider unilateral effects in two types of merger situations. The first is when the merger is between two companies that produce relatively homogeneous products. Interestingly, and beyond what can be found in the EC guidelines, the US Agencies consider that unilateral effects in this type of market are likely when the combined market share of the merged companies reaches 35%

¹⁶¹ Völcker, *Mind The Gap: Unilateral Effects Analysis Arrives in EC Merger Control*, p. 403.

¹⁶² Some authors consider that the Commission, by choosing the HHI thresholds set out in paragraph 20 of the EC Horizontal Merger Guidelines, has effectively put the market share threshold for possible intervention at a little over 25%. This level is considered unrealistic. See Sylvie Madhuit and Trevor Soames, *Changes in EU Merger Control: Part 2* in *European Competition Law Review*, 2/2005, p. 78.

¹⁶³ US Horizontal Merger Guidelines, chapter 2.2.

and certain conditions are met.¹⁶⁴ Essentially, higher prices can be maintained since the merged company has a “[...] *larger base of sales on which to enjoy the resulting price rise and also eliminates a competitor to which the customers otherwise would have diverted their sales.*” The US guidelines go on to state that “*this unilateral effect is unlikely unless a sufficiently large number of the merged firm’s customers would not be able to find economical alternative sources of supply, i.e., competitors of the merged firm likely would not respond to the price increase and output reduction by the merged firm with increases in their own outputs sufficient in the aggregate to make the unilateral action of the merged firm unprofitable. Such non party expansion is unlikely if those firms face binding capacity constraints that could not be economically relaxed within two years or if existing excess capacity is significantly more costly to operate than capacity currently in use.*”¹⁶⁵

The second merger situation which gives rise to unilateral effects is according to the US guidelines in markets with differentiated products.¹⁶⁶ The criteria given here are similar to those found in the EC guidelines, i.e. the closeness of the products of the merging firms and the possibility of remaining competitors to bring their products closer to the merging companies’ products are central consideration in this situation. Also here, the US Agencies will consider that unilateral effects in this type of market are likely when the combined market share of the merged companies reaches 35% and certain conditions are met.¹⁶⁷ Essentially, “[...] *the market share is reflective of not only its relative appeal as a first choice to consumers of the merging firms’ products but also its relative appeal as a second choice, and hence as a competitive constraint of the first choice.*” Where the 35% market share level is met by the merging companies

¹⁶⁴ Ibid, p. 25.

¹⁶⁵ Ibid.

¹⁶⁶ Ibid, p. 22-25.

¹⁶⁷ Ibid, p. 24.

“[...] and where data on product attributes and relative product appeal show that a significant share of purchasers of one merging firm’s product regard the other as their second choice, then market share data may be relied upon to demonstrate that there is a significant share of sales in the market accounted for by consumers who would be adversely affected by the merger.”

6.3.3.2 Irish merger guidelines

In a similar vein the Irish Merger Guidelines also discuss unilateral effects. The approach differs slightly, however. First of all, paragraph 4.6. of the Irish Merger Guidelines states that when assessing unilateral effects the authority may use the Diversion Ratio.¹⁶⁸ The guidelines then state that *“[...] the ability to internalise sales that would be lost absent the merger would make it profitable for the merged firm to increase the price. This would happen for substitutability within the market involves a lower threshold than the test for substitutability at the market definition level, with a 3% price increase being typically used.”*

Secondly, the Irish Competition Authority will examine the reactions of existing competitors. In paragraph 4.7 the guidelines state that *“[o]f central importance here is whether capacity or other constraints limit the ability of competitors to win sales if the merged firm increases its price. If competitors were not able to increase output to satisfy customers who switch, market power would result.”* Also the *“[...] ability of other firms to reposition existing products or brands or otherwise develop substitutes of sufficient homogeneity, substitutability, quality and status to overcome consumer stasis [...]”* is relevant.

In paragraph 4.14 the Irish Merger Guidelines then, quite helpfully, list circumstances in which mergers, which do not create or

¹⁶⁸ Discussed above in chapter 6.2.2. This is referred to as the ‘displacement concept’ by the Irish Competition Authority.

strengthen dominance, may despite this create unilateral effects. The circumstances mentioned are situations where the merging products are particularly close, markets in which there are capacity constraints, markets where the number of competitors is particularly important¹⁶⁹ and whether or not one of the merging companies is a 'maverick'. Interestingly, markets where competition is based on output, i.e. the Cournot model, are also mentioned: "*If one firm reduces its output, it pushes up the market price and benefits from the price increase in proportion to its market share. A merger that increases market share would increase the incentive to cut output, as the price increase would be obtained over a larger range.*"¹⁷⁰

As a final note the Irish Competition Authority asks that mergers be notified "[...] *if the post merger market share is above 40% on any reasonable definition of the relevant market [...]*"¹⁷¹ since these may clearly raise concerns about competition.

The above guidelines seemingly give greater clarity than the Commission's attempt. In particular, the US Horizontal Merger Guidelines mentioning of the 35% market share threshold for unilateral effects¹⁷² and the Irish Merger Guidelines mentioning of the 3% price rise for purposes of assessing the Diversion Ratio¹⁷³ and the 40% market share threshold should both give the practitioner some points of reference at the outset of analysing a merger.

¹⁶⁹ For example in auction markets, since the increased number of bidders may increase the intensity of bidding.

¹⁷⁰ Irish Merger Guidelines, paragraph 4.14.

¹⁷¹ Ibid, paragraph 7.3 (a).

¹⁷² This is by some authors considered a much more realist threshold than can be extrapolated from the HHI thresholds set out by the Commission in the EC Horizontal Merger Guidelines, paragraph 20. See Sylvie Madhuit and Trevor Soames, *Changes in EU Merger Control: Part 2*, p. 78.

¹⁷³ As opposed to the 5-10% test typically employed in the market definition stage of merger analysis, referred to as the Small but Significant Non-transitory Increase in Price (SSNIP) test. See the Commission's Notice on Market Definition, paragraph 14, and Whish, *Competition Law*, p. 30.

Having seen how competition authorities explain their approach to unilateral effects analysis it is time to look at the available case law.

6.3.4 Case law

It is worth mentioning that case law, that discusses specifically those unilateral effects which occur after a merger even if a dominant position is not created, is not frequent. Below are the cases which are most frequently cited in discussions about unilateral effects.

6.3.4.1 *Airtours v Commission (EC)*¹⁷⁴

The case of *Airtours v Commission* is by some cited as an attempt by the Commission to introduce unilateral effects analysis into merger control under the dominance test.¹⁷⁵ In paragraph 54 of the Commission decision in *Airtours/First Choice*¹⁷⁶ it stated that “[...] *it is not a necessary condition of collective dominance for the oligopolists always to behave as if there were one or more explicit agreements (eg to fix prices or capacity, or share the market) between them. It is sufficient that the merger makes it rational for the oligopolists, in adapting themselves to market conditions to act individually in ways which will substantially reduce competition between them, and as a result of which they may act, on an appreciable extent, independently of competitor, customers and consumers.*”¹⁷⁷ Although the CFI did not address this paragraph specifically, its judgment clearly describes the conditions which must be met by the Commission to prove a case of collective dominance. It is clear from this description, that absent a material risk of tacit coordination in light of market characteristics, the concept of collective dominance cannot be invoked. Thus the CFI did not allow the concept of collective dominance to be stretched to cover unilateral effects as well.

¹⁷⁴ This case was previously discussed in chapter 5.3.3.

¹⁷⁵ Bermond, *Test de dominance et effets unilatéraux*, p. 80 and 81 and Whish, *Competition Law*, p. 537.

¹⁷⁶ *Airtours/First Choice* (Commission decision) OJ 2000/L 93/1 [2000].

¹⁷⁷ Emphasis added.

Airtours v Commission has been seen by some authors as confirmation of the existing gap, prior to the 2004 Merger Regulation, between the dominance test and those unilateral effects which go beyond dominance.¹⁷⁸

6.3.4.2 FTC v Heinz and Milnot (US)¹⁷⁹

In this case the FTC opposed a merger between H.J. Heinz Company and Milnot Holding Corporation, which owned Beech-Nut Nutrition Corporation. Heinz and Beech-Nut were competitors on the baby food market, each controlling 14% of the market before the merger. One competitor, Gerber, held 70%. The merging companies thus ranked two and three in the market and would clearly not enjoy a dominant position after the merger with a market share of 'only' 28% and one competitor controlling the remaining market share. Conditions for collective dominance, coordinated effects under US law, were not considered to exist either. Almost all retailers stocked Gerber baby food and only one other brand. Heinz and Beech-Nut were thus each other's main rivals to be selected as retailers' 'second shelf' position alongside Gerber, i.e. they were close substitutes for retailers being the retailers first and second choices for the 'second shelf' position. In this case, the merging firms remained smaller than the existing market leader, yet the FTC found that the merger raised serious competition issues as a result of a loss of competition.

The US federal Court of Appeal agreed, stating that the merging companies had consistently competed for the 'second shelf' beside Gerber. The loss of one of these competitors would remove an important competitive constraint on the market, and would thus lead to higher prices, irrespective of Gerber's pricing decisions on the market.

¹⁷⁸ Niel Horner, *Unilateral Effects and the EC Merger Regulation: How the Commission had its Cake and Ate it Too* in *Hanse Law Review* 2(1) 2006, p. 30.

¹⁷⁹ *FTC v H.J. Heinz Company* 246 F.3d 708,720 District of Columbia Circuit [2001], often referred to as the 'Baby Food' case.

In this case it seems clear that the dominance test, applied to the merging companies, would not have allowed for intervention in the merger since it did not result single company dominance. Arguably the FTC could have proceeded on the grounds of coordinated effects, i.e. collective dominance, however this would not have expressed the concern by the FTC, which was the elimination of the rivalry for the 'second shelf' at retailers.

6.3.4.3 Lloyds TSB/Abbey National (UK)¹⁸⁰

Another case popularly cited as a case that would have fallen outside the scope of dominance is the merger between Lloyds TSB Bank plc and Abbey National plc in the UK banking market, mainly for current accounts. In its report, the UK Competition Commissioner recommended that the merger be blocked even if it would have resulted in a post-merger market share of 'only' 27% in the market for current accounts. Three principal rivals controlled a further 50% of the market. One of the main arguments brought forward by the Competition Commissioner was that Abbey National, and one other bank, was essentially a 'maverick' in the current account market and a potential competitor in the market for banking services for small and medium companies. The removal of Abbey National would eliminate an important competitive force in the market and thus strengthen the market power of the largest current account provider in the UK market.¹⁸¹

Again it could be argued that applying the collective dominance test under the 1989 Merger Regulation could have blocked the merger. Many of the factors focused on by the UK Competition Commissioner are traditionally associated with a coordinated effects analysis, such as homogeneity, stability and transparency. Theoretically the

¹⁸⁰ Lloyds TSB Group Plc/Abbey National Plc: Report on the proposed merger, UK Competition Commissioner [2001].

¹⁸¹ The merger was abandoned after the UK Competition Commissioner suggested that the UK Competition Commission scrutinize the case.

Commissioner could have concluded that the market is vulnerable to tacit collusion in pricing, but again this would not have faithfully represented the Commissioner's concerns regarding the merger that an important competitive restraint would be removed by the transaction.

6.3.4.4 US v Oracle (US)¹⁸²

In *US v Oracle*, a recent case involving Oracle's hostile takeover of PeopleSoft, the US Agencies attempted to block the transaction on the grounds that it would create substantial unilateral effects. Both companies produced software systems for human relations and financial management. The US Agencies considered that products from Oracle, PeopleSoft and SAP, a German competitor, to form a separate market since only these firms could produce 'high function' software of this type to large, complex companies or agencies. In addition the US Agencies claimed that Oracle and PeopleSoft were particularly close competitors, constituting the first and second choice for a large part of the consumers.

The US District Court for the Northern District of California, however, refused to block the merger, its main criticism levelled at the US Agencies' market definition. The court ruled that the market was broader in scope and that some of what the US Agencies referred to as 'mid market' producers were clearly competing with Oracle and PeopleSoft,¹⁸³ or at the very least were well placed to reposition their products closer to Oracle and PeopleSoft on the market. Furthermore, potential and 'easy' entry from Microsoft Corporation to the market was considered a further indication of the limited unilateral effects created by the court. The only argument lost by Oracle, it seems, were its efficiency claims, which the court considered speculative.

¹⁸² *United States, et al. v Oracle Corporation*, case nr. C 04-0807, Northern District of California [2004].

¹⁸³ The Court was happy to point out that the DOJ itself had purchased software for \$24 million two weeks after filing the case from a mid market company.

The case perhaps illustrates best how a narrow market definition is difficult to sustain in some unilateral effects cases.

Having reviewed the new substantive provision in Article 2(3) of the 2004 Merger Regulation, the guidelines and case law on unilateral effects, the last chapter will contrast the dominance test and the SIEC test in an attempt to identify the key differences for the purposes of EC merger control.

7 Conclusions

7.1 A hypothetical example

The following is an attempt to illustrate a hypothetical merger situation between two firms out of four in the 'widget' market, i.e. a 'four to three' merger.¹⁸⁴ This hypothetical merger is intended to illustrate, using the concepts explained in this paper, how unilateral effects analysis comes into play in mergers, which first of all take place in oligopolistic markets and secondly that do not lead to the creation or strengthening of a dominant position, whether single or collective. The purpose of this is to show how unilateral effects analysis differs from the analysis that takes place under the dominance test.

7.1.1 Market

The market is an oligopolistic market with four competitors; A, B, C and D. All sell widgets, which perform the same basic function. However, due to certain technical qualities and heavy advertising expenditure on behalf of the companies, the products are clearly differentiated. In light of this the companies compete on price and attempt to maximise revenue. The companies have the following market shares: A has 40%, B 20%, C 15% and D has 25%.

Customers in the widget market are very heterogeneous. Some only buy A widgets, unless the price becomes unrealistically high. Other are willing to consider widgets from B and C, the two being the closest substitutes in the minds of the customers. This same group would never buy A or D widgets. A third group would buy any widget, depending on the price.

¹⁸⁴ The following example is inspired by Völcker, *Mind The Gap: Unilateral Effects Analysis Arrives in EC Merger Control*, p. 395-397.

7.1.2 Merger

The assumption is that B and C decide to merge. Their combined market share reaches 35%. After the merger the resulting company does a market study to discover if higher prices could be sustained after the merger. The study finds that a 10% raise in widget B prices would lead to substantial losses in customers, half of which would switch to C. Also a 10% price raise in C widgets would result in losses of customers, however, 40% of those would then switch to B. The merged company does neither expect market conditions to change substantially or A and D to change their commercial strategies. This situation would give the B and D a certain incentive to raise prices, since a large portion of lost sales would be recaptured by the merged company.

7.1.3 Unilateral effects and dominance compared

A number of aspects of unilateral effects analysis can be described based on the above example.

First of all, raising prices is a rational choice for B and C in this situation, regardless of how A and D react. This removes the necessity to show tacit coordination, i.e. collective dominance.

Secondly, after the merger B and C would 'only' control 35% of the market. Furthermore A would still control 40% of the market, making a finding of dominance impossible. What however becomes important in a unilateral effects analysis is the proportion of customers that view B and C widgets as their first and second choices, making it less likely that these customers would switch to A or D widgets in light of a price raise for B and C widgets. If this is a significant proportion of the customers then the fact that B and C have less market share than A is not important.

Thirdly, if the data on customer preferences in the market is available then the market definition becomes less important. If this data would essentially show that a large part of the customer base consider B and C widgets as their first and second choice it becomes more difficult for B and C to argue that a wider market definition applies, for example to include blodgets. Artificially narrow market definitions, to capture the 'localized' competition between B and C, therefore become unnecessary.

Fourthly, the likelihood of market entry after the merger of course dampens possible unilateral effects just as under the dominance test. However, since this is a differentiated market the possibility exists that A and D would decide to bring their widgets' perceived image, i.e. brand, closer to B and C after the merger, assuming that the sunk cost would not be prohibitive. If this is likely then it may also 'cool' any unilateral effects.

Lastly, consideration must be given to the likelihood of efficiency gains under unilateral effects analysis. Showing efficiency gains becomes first of all necessary since the thresholds for possible intervention are lowered under unilateral effects analysis. Secondly, since the focus under unilateral effects is whether the merged company will have an incentive to raise prices, it also becomes less risky than under the dominance test. Under the dominance test showing efficiency gains, especially for a company that has a market share in excess of 40% may be risky, as this can be seen to 'entrench' any dominant position. Dominance seems also to be more focused on the competitors ability to compete after the merger.

7.2 Semantics

The difference between the US SLC test and the dominance test, as it was applied by the Commission under the 1989 Merger Regulation,

has by some authors been considered slight.¹⁸⁵ Most, however, agree that the change to Article 2(3) of the 2004 Merger Regulation brought EC merger control closer to its US counterpart.¹⁸⁶ The purpose of the changes were to ensure that all situations, which threaten competition would be covered by the test, ending the debate about the ultimate scope of the dominance test and allowing the Commission to intervene against all anti-competitive mergers.¹⁸⁷

Semantically, this seems to be true. The words ‘market dominance’ seem to imply a very specific situation in which one company dominates a market so as to dictate, to an appreciable extent, the conditions of competition in that market. Furthermore it implies that the dominant company has greater market power than other companies in the market. A ‘substantial lessening of competition’ or ‘significant impediment to effective competition’, on the other hand, describes in a general and unspecific manner any situation that may impede competition. In other words the phrasing is broader in scope, capturing, theoretically, all situations with adverse consequences for competition that can arise in a market.

7.3 Consequences

One consequence of this change, should be that as new economic theories become available, which show detrimental effects of mergers on competition, the SLC and the new SIEC test, can encompass these, while the ‘old’ dominance test will not.¹⁸⁸

¹⁸⁵ Nicholas Levy, *EU Merger Control: From Birth to Adolescence* in *World Competition* 26(2) 2003, p. 200.

¹⁸⁶ See for example Nicholas Levy, *EU Merger Control: From Birth to Adolescence*, p. 214. See also Bermond, *Test de dominance et effets unilatéraux*, p. 78, and Riesenkauff, *The new EC merger control test under Article 2 of the Merger Control Regulation*, p. 724-726.

¹⁸⁷ *Merger review package in a nutshell*, p.1, available at the EC Commission’s homepage: http://europa.eu.int/comm/competition/index_en.html, last visited 23rd April 2006. The benefit of the new test, according to the Commission, is that it “[...]focuses unambiguously on the impact of a merger on competition.”

¹⁸⁸ This may also help explain why there has never been a need to change the substantive provision in Section 7 of the 1914 Clayton Act. See chapter 2.2.

The scope of dominance in the 1989 Merger Regulation, semantically speaking was, of course, 'extended' in *Italian Flat Glass*, in line with the dominance test in Article 82 TEC to also cover collective dominance.¹⁸⁹ Thus the only negative effects on competition not covered by the old test were certain unilateral effects in oligopolistic markets, which can occur before the dominance thresholds are met, i.e. at lower market share thresholds than 40-50%.

It is important to remember that dominance is maintained as an example of unilateral effects in the new 2004 Merger Regulation. Some refer to the new test as a 'curious form of co-habitation'.¹⁹⁰ The Commission on the other hand refers to this as "[...] *a truly 'European' solution, combining the best of the substantive standards in our various jurisdictions, and preserving existing precedent, in the form of past Commission decisions and past judgments of the European Courts.*" Furthermore the Commission states that the SIEC test "[...] *does not alter the Commission's approach to the analysis of the competitive impact of mergers [...]*".¹⁹¹

This paper has sought to describe those unilateral effects which the Commission and Council have attempted to catch with the 2004 Merger Regulation. To summarize; these unilateral effects occur after mergers in oligopolistic markets, essentially removing certain competitive restraints after the merger. These unilateral effects allow potentially all competitors in the market to raise prices. In differentiated markets on the one hand, a company (A) which merges with a close competitor (B), will be able to recapture some sales which would otherwise have been lost to this competitor (B) should the company (A) now raise prices. Although some sales may be lost

¹⁸⁹ See chapter 5.1.

¹⁹⁰ Völcker, *Mind the Gap: Unilateral Effects Analysis Arrives in EC Merger Control*, p. 403.

¹⁹¹ *Merger review package in a nutshell*, p.1.

competitors outside the group, those recaptured make up for that loss. In homogeneous markets on the other hand, unilateral effects may come into play where competitors to the merged company face capacity restraints. Thus the merged company can restrict output and raise prices without the competitors being able to increase their output to match pre-merger levels.

Some authors argue that the new test will mean lower thresholds for the Commission to intervene and that obviously this new test widens the scope of control carried out by the Commission in the field of merger control.¹⁹² However, it must be noted that this reinforcement of power does have a counterpart. The views expressed by the Commission in its guidelines regarding efficiency gains as a result of mergers seem to be intended to alleviate some of the worries that come with potentially lower thresholds for intervention. Efficiency gains can however be notoriously difficult to show,¹⁹³ and will perhaps not provide the counterweight initially intended.

Others have argued that in practice those unilateral effects which go beyond dominance are a rarity indeed and that very few cases analysed in the US under the SLC test have market shares of under 40% and did not contain elements of coordinated effects, i.e. collective dominance.¹⁹⁴ In such a situation a finding of dominance may be likely at any rate and, if any fate can be put in to the Commission's remarks that the dominance test will remain the main test used by it, then most mergers will continue to be on the basis of the dominance test.

What should be kept in mind however, is that the Commission has obtained a new test with which to control mergers and it will attempt,

¹⁹² Niel Horner, *Unilateral Effects and the EC Merger Regulation: How the Commission had its Cake and Ate it Too*, p. 37-39.

¹⁹³ See for example *US v Oracle*, chapter 6.3.4.4.

¹⁹⁴ Völcker, *Mind The Gap: Unilateral Effects Analysis Arrives in EC Merger Control*, p. 409.

or indeed it has the duty, to explore the limits of this new test. It will of course ultimately fall to the CFI and ECJ to clarify the new SIEC test and set the limits for its application. These facts perhaps explain commissions hesitation in giving further guidance in its guidelines.¹⁹⁵ In not including further guidance, however, the Commission is missing an important point; legal certainty. It is necessary for companies considering mergers to see at least at which point the Commission realistically will consider looking at those unilateral effects which go beyond dominance, and thus at which point to begin worrying about the fate of a merger transaction.

¹⁹⁵ This was considered scant even in the draft guidelines, see Riesenkampff, *The new EC merger control test under Article 2 of the Merger Control Regulation*, p. 723.

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