ICN Merger Working Group: Investigation and Analysis Subgroup

ICN MERGER GUIDELINES WORKBOOK

Prepared for the Fifth Annual ICN Conference in Cape Town

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PREFACE

This Workbook is designed to represent a useful sourcebook on a framework for analysing the competition effects of mergers. This first edition of the Workbook, prepared for delivery at the fifth ICN conference in Cape Town, is built upon discussions and feedback on a preliminary draft presented at the fourth annual ICN conference in Bonn and on previous ICN work.

The feedback during the Bonn conference has formed part of the Subgroup's wider programme of encouraging input into and feedback on its contents from jurisdictions for whom this Workbook is primarily intended. Such 'user involvement' is critical to the success of this project. Moreover, it is intended that this Workbook will be put to the test by various ICN members, and, as appropriate, revised in future in a second edition. In particular, the Subgroup intends to schedule a workshop involving hypothetical cases to combine both theory and practice; and the annual conference in Cape Town could be the appropriate occasion to discuss this with ICN members.

This guide has been put together under the Chairmanship of the Irish Competition Authority and the UK Office of Fair Trading and with key contributions from Australia, Canada, the European Commission, Germany, Mexico, South Africa, the UK Competition Commission, the US Federal Trade Commission and Department of Justice. Helpful comments were also received by non-governmental advisors (NGAs) from Australia, Belgium, Canada, Japan, South Africa and US.

As chairs of this project under the auspices of the ICN's Mergers Investigation and Analysis Subgroup, we are most grateful to all who have contributed their time and expertise to this report. Our particular thanks go to the teams at the OFT and Irish Competition Authority that have worked on this project.

Irish Competition Authority
UK Office of Fair Trading

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CHAPTER I – INTRODUCTION

Objectives

1.1. The aim of this Workbook is to be a user-friendly, practical manual to help assess mergers by posing key questions the investigating authority will wish to address when considering a merger's potential effect on competition.[1]

1.2. We hope that this Workbook will become a 'well-thumbed' tool for jurisdictions new to or in the early years of merger control as well as a useful guide for companies and their advisers on criteria applied by authorities in the competition assessment of mergers. Accordingly, everyday language is used whenever possible to make the Workbook widely accessible. Where technical terms are used, explanations or references are given.

Content

1.3. This Workbook follows on from the 'ICN Project on Merger Guidelines', a comparative study of merger guidelines discussed at the ICN's second annual conference in Merida in 2003 and finalised for the 2004 conference in Seoul.[2] The study concluded that – notwithstanding differences in the precise wording of various substantive merger test – there are relatively few fundamental differences among the available merger guidelines and they have a great deal in common.[3]

1.4. This project seeks to build on the findings of the ICN project on merger guidelines, drawing together common approaches to problems and seeking to elicit best practice

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[1] The discussion of the purpose of a merger policy and its interrelation with other broader public policy issues is beyond the scope of this work. This discussion was addressed at the first ICN annual conference in Naples in 2002. See chapter 5 for references.
[2] See chapter 5 for references.
[3] The Seoul paper concentrated its review on 12 sets of guidelines/guidance published around the world. More generally, the project identified 26 jurisdictions that publish guidelines on the substantive analysis of mergers under their laws. Some jurisdictions, such as the United States of America, have more than one agency that can carry out merger reviews, and in some of these jurisdictions, each agency publishes its own guidelines/guidance.

in formulating an analytical framework for the competition assessment of mergers. This continues the Subgroup's focus of inquiry on merger guidelines since the inaugural ICN conference in Naples in 2002.

1.5. Chapter 2 defines and discusses some of the key concepts used in the competition assessment of mergers, and Chapter 3 places some of this in context by considering the different types of mergers that may arise. The eight worksheets in Chapter 4 are the core of this Workbook, providing detailed guidance on how to examine the different elements of merger assessment. Chapter 5 provides a link to an OECD glossary of industrial organization economics and competition law, suggestions for further sources, including ICN-related material, and links to the case studies used to illustrate the different elements of merger assessment. The Annex contains additional case studies grouped by topic.

1.6. The vast majority of significant competition issues associated with mergers arises in horizontal mergers. However, the worksheets in Chapter 4 also cover assessment in those rare instances in which competition issues are raised in vertical and conglomerate mergers. Within each of these segments, we have endeavoured to address each of the key topics for merger assessment. However, we have been conscious of the underlying objectives of this Workbook: it is not intended to be a textbook on merger assessment, nor a global review of the various approaches to topics in merger review. A guide to the range of techniques, tools and evidence which can be used in merger review is available in the ICN Investigative Techniques Handbook for Merger Review.[4]

1.7. The focus of each worksheet is on first principles, their rationale and practical application. A sample of three case studies is also provided at the end of each worksheet in the 'box' section. Other case studies can be found in the Annex. In the assessment of any merger, it is possible that competition issues will arise that are not clearly envisaged by this Workbook. In such cases, it is intended that this guidance be used as a framework for competition assessment and that it be interpreted in a flexible but principled manner. The guidance reflects current common legal and economic thinking which, by its nature, is continuously evolving. As case law and economic techniques of competition assessment develop, this Workbook could be revised to reflect such developments.

[4] See reference in Chapter 5.

CHAPTER 2 – CONCEPTS AND CORE PRINCIPLES

Introduction

2.1. The two basic questions in merger review are:

(a) which transactions are subject to review under merger control laws;[5] and

(b) how should the substantive legal test - against which mergers should be assessed - translate into a competition test?

2.2. This Workbook addresses question (b). The focus here is on substantive assessment of actual transactions. For further guidance on other issues, see the ICN 'Guiding Principles' and 'Recommended Practices' for merger notification and review procedures.[6]

How should the substantive legal test translate into a competition test?

2.3. A key starting point for any set of guidelines is to explain how the relevant national law translates into a **competition test**.[7] In particular, it is important to explain how a competition authority expects to identify those situations where a merger will not pass the relevant competition test.

2.4. Commonly, competition is seen as a process of rivalry. That process is regarded as valuable not for the sake of rivalry itself, but for the benefits that it brings to customers and, in turn, consumers. When effective, the competitive process compels firms to win customers by offering a better deal than their rivals, which enhances consumer welfare. Consumer welfare depends on a range of factors,

[5] Whether joint ventures are reviewed as mergers and/or agreements depends upon national law. Where they are treated as mergers, the analysis in the Workbook will apply. Clearly it is desirable for the national jurisdictional threshold for joint ventures to be as clear as possible to minimise uncertainty.
[6] See references in chapter 5. The document is also available in French and Spanish.
[7] See OECD Roundtable on Substantive Criteria used for Assessment of Mergers (2003).

including price, output, quality, variety and innovation. In most jurisdictions, the core purpose of merger review is to protect competition, so that mergers do not lead to harm to consumers (or customers, where products or services are not directly sold to end-consumers).

2.5. Most mergers do not harm competition. Indeed, some may be pro-competitive because they benefit consumers by lowering costs (through the achievement of efficiencies such as economies of scale) and/or increasing innovation. Many others are competitively neutral, for example because post-merger competition will remain and continue to discipline the merged firm and its rivals.

Theories of consumer (or competitive) harm

2.6. However, in some situations, mergers can have an anticompetitive effect on the market, enhancing the market power of the merging parties and thus harming consumers (or customers). Several **theories of consumer (or competitive) harm** have been developed within the context of mergers. Unilateral effects and coordinated effects theories are the two mainstream theories of competitive harm. These theories – which are discussed in chapter 4 - envisage various ways in which a merger may result in consumer harm (e.g., higher prices and/or lower output, quality, variety or innovation) and the reference in this Workbook to the price dimension is a shorthand for the several ways in which competitive harm can take form.

2.7. A central question in merger assessment is how the relevance of economic theories should be evaluated in the practical application of competition rules. Assessing the relevance of a theory to the actual transaction is critical because with the selected assumptions it is possible to build a theoretical model to support almost any view of the world. It is therefore important that any model used to assess the likely competitive effects of a merger fits the industry to which it is applied.[8] This implies that competition authorities need to conduct substantial factual analysis in support of their assessment. The increasing importance of detailed factual analysis in merger

[8] Generally, there are three ways in which a model and its relevance to a case might be tested. First, one can test the internal logic of the model itself. Second, the assumptions of the model must be tested. Third, the model must capture important aspects of an industry, such as whether products are differentiated.

review is clearly demonstrated in the 'ICN Investigative Techniques Handbook for Merger Review'.

2.8. Competition authorities generally have the responsibility to intervene when they expect a merger to have an anti-competitive outcome: in these situations, the merger could either be prohibited or the adverse effects resolved by remedies. A practical guide to merger remedies is provided by the ICN Merger Remedies Review Project which was reported to the 2005 ICN annual conference in Bonn.[9]

Counterfactual

2.9. It is implicit in the description above that basic merger analysis relies on understanding the effects that a merger may have on the expected state of competition in a market.[10] A central concept of any competition test is therefore a comparison of competition with and without the merger. The competitive situation without the merger is sometimes referred to as the **counterfactual**.

2.10. In most cases, the best starting point for the counterfactual is prevailing conditions of competition, i.e., the conditions of competition existing before the merger. It is necessary, however, in most instances to take into account likely and imminent changes in the nature of competition in order to reflect, as accurately as possible, the nature of rivalry without the merger. Examples of such circumstances may include:

- Expected near-term entry or exit from the market or committed expansion plans by existing competitors.

- There are committed expansion plans in place by one or both of the merging firms absent the merger.

- Where one of the parties to a merger is a failing firm or a merger involves the acquisition of a failing division, pre-merger conditions of competition might not prevail even if the merger were prohibited (see Worksheet G on failing firm argument).

[9] See references in chapter 5.
[10] Guidance on the application of economics to each component of merger assessment is discussed in Chapter 4 of this Workbook.

- There may be changes to the regulatory structure of the market such as liberalisation or tighter environmental constraints that will change the nature of competition.

- There may be other changes in the market that have implications for the assessment of the competition. It is critical to keep in mind that markets are dynamic rather than static.

CHAPTER 3 – TYPES OF MERGER

Introduction

3.1. Before considering the core topics that should be assessed in a merger review, it is important to understand the types of merger that may arise. Absent this, it is difficult to provide a coherent framework to explain how they will be analysed. This chapter therefore sets the scene for the more detailed consideration of core topics provided in chapter 4.

3.2. The majority of the issues discussed in the worksheets in chapter 4 relate to horizontal mergers because these are the most common type of merger where competition issues arise. Other types of merger where competition issues are less likely to arise are non-horizontal, i.e., vertical and conglomerate. An individual merger may, of course, involve more than one of these types – for example, a predominantly vertical merger with some horizontal aspects. Indeed, in some of the most complex transactions, competition authorities need to address multiple theories of harm in the same case.

3.3. Whichever type or combination of types of merger, the analysis compares the anticipated state of competition with the merger with the counterfactual (i.e., the likely competitive situation in the foreseeable future if the merger did not take place) as described in chapter 2.

Horizontal mergers

3.4. A horizontal merger is one between parties that are competitors at the same level of production and/or distribution of a good or service, i.e., in the same relevant market as described in Worksheet A - for example, two suppliers of sugar in the same geographical area. It is the elimination of rivalry between the overlapping activities of the merging parties that may directly lead to harm to – or loss of – competition.

3.5. The focus of analysis is on evaluating how the competitive incentives of the merging parties and their rivals might change as a result of the merger. The merging parties may realise efficiency gains and in some circumstances this may intensify rivalry and be beneficial for consumers. It is the competition authorities' task to ensure that the merger is not likely to enable firms to harm consumers or customers (where products or services are not sold directly to final consumers), e.g., by profitably raising prices, reducing quality or restricting innovation.

3.6. As anticipated in the chapter 2, there are two conceptually distinct means by which a horizontal merger might affect competition (although a merger may raise both types of concerns). These two mainstream theories of competitive harm are set out below:

- **Unilateral effects** – also known as **non-coordinated effects** – arise where, as a result of the merger, competition between the products of the merging firms is eliminated, allowing the merged entity to *unilaterally* exercise market power, for instance by profitably raising the price of one or both merging parties' products, thus harming consumers. In theory, all horizontal mergers involve firms active in the same relevant market and therefore remove some competitive constraint: the critical issue is how to distinguish economically 'important' competitive constraints from 'unimportant' ones.

- **Coordinated effects** arise where, under certain market conditions (e.g., market transparency, product homogeneity etc.), the merger increases the probability that, post merger, merging parties and their competitors will successfully be able to coordinate their behaviour in an anti-competitive way, for example, by raising prices. The main issue, here, is not the market power of the merging parties resulting from the merger, but, instead, whether the merger will create or strengthen certain market conditions which allow firms in the market (not only the merged entity) to successfully coordinate their actions to the disadvantage of consumers (or customers).

Non-horizontal mergers

3.7. There are two basic forms of non-horizontal mergers: vertical and conglomerate. Vertical mergers are mergers between firms that operate at different but

complementary levels in the chain of production (e.g., manufacturing and an upstream market for an input) and/or distribution (e.g., manufacturing and a downstream market for re-sale to retailers) of the same final product. In purely vertical mergers there is no direct loss in competition as in horizontal mergers because the parties' products did not compete in the same relevant market. As such, there is no change in the level of concentration in either relevant market.

3.8. Vertical mergers have significant potential to create efficiencies largely because the upstream and downstream products or services complement each other. Even so, vertical integration may sometimes give rise to competition concerns. A key question is whether the vertical merger is expected to force rivals from the market, raise their costs levels or raise barriers to entry in a manner that lessens competition. In some jurisdictions, such effects are usually broadly referred to as 'market foreclosure effects'.

3.9. In addition, vertical mergers could possibly raise competition concerns similar to those predicted in the context of horizontal mergers. As a result of the merger, the merger may increase the ability and incentive of firms to coordinate their behaviour in a market in a harmful way for consumers (or customers).

3.10. However, it should be noted that in general vertical merger concerns are likely to arise only if market power already exists in one or more markets along the supply chain.

3.11. In sum, when assessing vertical mergers it is fundamental to consider (i) whether or not there is pre-existing market power at one or more levels of the supply chain; (ii) which theory of competitive harm is likely to be relevant in a specific case, (iii) and whether or not the parties' economic incentives to engage in anticompetitive behaviour materially change as a result of the merger according to the predictions of the underlying theory.

3.12. Conglomerate mergers involve firms that operate in different product markets, without a vertical relationship. They may be product extension mergers, i.e., mergers between firms that produce different but related products or pure conglomerate mergers, i.e., mergers between firms operating in entirely different markets. In practice, the focus is on mergers between companies that are active in related or

neighbouring markets, e.g., mergers involving suppliers of complementary products or of products belonging to a range of products that is generally sold to the same set of customers.

3.13. Unlike horizontal mergers, conglomerate mergers do not entail the loss of direct competition between the merging firms in the same relevant market. A further characteristic of conglomerate mergers is that there is often a potential for efficiency gains when the products of the companies involved are complementary to each other.

3.14. Merger review in this area is controversial, as commentators and enforcement agencies disagree on the extent to which one can predict competitive harm resulting from such mergers. Proponents of conglomerate theories of harm argue that in a small number of cases, where the parties to the merger have strong market positions in their respective markets, potential harm may arise when the merging group is likely to foreclose other rivals from the market in a way similar to vertical mergers. When as a result of foreclosure rival companies become less effective competitors, consumer harm may result.

3.15. However, it should be stressed that in these cases there is a real risk of foregoing efficiency gains that benefits consumer welfare and thus the theory of competitive harm needs to be supported by substantial evidence.

CHAPTER 4 – MERGER GUIDELINES WORKSHEETS

4.1. This chapter contains the following merger guideline worksheets:

A. Market definition
B. Market structure and concentration
C. Unilateral effects
D. Coordinated effects
E. Market entry and expansion
F. Efficiencies
G. Failing firm
H. Non-horizontal mergers

4.2 Each of the worksheets is organised in the same way. They begin with a brief discussion of the place of the topic in merger control, followed by a summary of the relevant economic principles that underpin that part of the competition assessment. They end with a 'box section' where some actual merger cases drawn from various jurisdictions are illustrated (the Annex of the Workbook contain additional case studies). The core purpose of each worksheet is to provide analytical guidance on what questions an authority might ask itself at that stage of the assessment, and how information and evidence that it has collected might be interpreted. Where appropriate, guidance is also provided on how to avoid common pitfalls.

CHAPTER 4: WORKSHEET A – MARKET DEFINITION

Introduction

A.1. Proper examination of the competitive effects of a merger rests on a sound understanding of the competitive constraints under which the merged firm will operate. The starting position for identifying the scope of competition involves identifying products which are substitutable from the point of view of customers. This is the purpose of market definition. A market generally includes a group of products which compete with one another within a geographic area. When conducting market definition analysis, it is generally practical to describe the relevant product market first, and then to define the relevant geographic market.

A.2. It is essential to note that market definition is not an end in itself, but rather a step which helps in the process of determining whether the merged entity possesses, or will, post-merger, possess market power.

A.3. In some cases it may be clear that on any sensible market definition the merged firm will not possess any market power or that the merger will not enhance its market power. In either case it may not be necessary to establish which of the candidate market definitions is correct. Indeed, decisions published by established merger regimes commonly comment that it is not necessary to come to a firm conclusion on the scope of the relevant market since the merger does not appear to harm competition on any reasonable definition, including the narrowest possible definition. Alternatively, the competitive harm may be the same in more than one possible market definition. If, for example, two companies have equal market shares of the product A market and product B market (and so do all the other suppliers), then it might make no difference whether the authority considers a market for A and a market for B or a market for A and B. In such circumstances, some competition authorities may not need to come to a firm conclusion on the scope of the relevant market.

Economic rationale and principles

A.4. Market definition is important for two main reasons:

- First, the exercise of defining markets provides a useful analytical framework in which to organise the analysis of the effects of the merger on competition. Firms in the relevant market offer the most immediate and direct competition to the merged entity. In this sense, market definition sets the stage on which competition takes place. For example, it enables us to assess the respective positions of the merged entity's rivals and, when considering the possibility that new competitors might enter the market, it is of course necessary to identify the market being entered.

- Second, market shares[11] - the most widely used proxy for the determination of the absence or possible existence of market power - can be calculated only after the scope of the market has been defined. As an *initial* indicator, when the combined post-merger market share of the merged entity is expected to be high, competition concerns might arise. Conversely, when market shares are low (especially if they are low under all reasonable alternative definitions of the relevant market), then, as mentioned, it is often possible to dismiss any concerns or the need for substantial further investigation.

A.5. The market definition includes considering whether products can technically serve the same purpose, and whether they will do so in a way that is cost-effective enough for sufficient customers to consider them realistic economic alternatives. As an extreme example, passengers could rent a helicopter rather than take an inter-city bus, but this will not be an economic substitute to bus travel.

A.6. The scope of the market is often not always obvious. Does a manufacturer of colas compete in the market for branded cola-flavoured drinks, the market for all cola-flavoured drinks, the market for ‘fizzy’ or ‘soft’ drinks, the market for non-alcoholic beverages or some other collection of products? Its market share could vary significantly depending on which definition is used and so too may the authority’s

[11] Market shares may be based on the total sales (or output or some other measure) of the product, in a defined area, to be held by the merging firms and each of their rivals in the relevant market. This is discussed in further detail in Worksheet B.

view on the effects of the merger. But neither market shares can be measured nor the competitive effects analysed until the question is resolved.

A.7. In this context, it is important to realise that not all customers are alike. One has to bear in mind that there is a distinction between the ‘average customer’ and what is called the ‘marginal customer’. The fact that many customers are 'captive' and will not switch to other products does not indicate whether there are sufficient marginal customers that are price-sensitive and would switch to another substitute. It is the latter question that is the more important for market definition (see also below).

A.8. It should be emphasised that defining a market with mathematical precision is rarely possible. The relevant market is in practice no more than an appropriate frame of reference for analysis of the competitive effects. It is essential to have constant awareness of this throughout the merger assessment process. It is important to recognize that competing products generally should not be viewed as either

- in the market, and therefore a perfect 100% substitute for any other product in that market or
- out of the market, and therefore offering zero substitutability or constraint on products in the market.

This false dichotomy is often referred to as the 0 - 1 fallacy, that is one of the most serious pitfalls of market definition, especially in differentiated product markets (products differentiated by brand, quality, etc.). In reality, a spectrum of constraints may exist which need to be built into the analysis. Nevertheless, the conceptual framework of market definition is important as it provides an intellectually disciplined tool with which to gather and assess evidence on the sources of competitive constraints that face the merged entity and its rivals.

A.9. When markets contain differentiated products, it may be difficult to define the market exactly. Moreover, some products may be in the same market yet may be much closer substitutes for each other than other products also in the market. In differentiated product markets, therefore, market definition will need to be supported by rigorous analysis of competitive effects.

The use of precedents

A.10. In many cases a market may have already been investigated and defined in previous investigations. Additionally, the same merger may be being examined by other jurisdictions. Sometimes earlier definitions or approaches of other competition authorities can be informative when considering the appropriate product or area although care should be taken as the conclusions on these cases may not always be applicable to the merger in question.

- First, competitive conditions change over time. In particular, innovation may make substitutability between products easier or more difficult and so change the market definition. (For instance, because of innovation and technological progress, telecommunications and broadcasting markets are converging.) It must be kept in mind that markets are dynamic rather than static, and may change over time.

- Second, a product market definition that concerns an area outside a particular country may not necessarily apply to an area within that country if the purchasing behaviour of customers differs significantly between those two areas.

- Third, behaviour of an undertaking with market power can affect market definition. For example, suppose an earlier investigation had defined a market to be relatively wide because of the scope for both demand-side and supply-side substitutability (see following sections). An undertaking with market power in that market might raise customer switching costs or foreclose some possibilities of supply-side switching. If so, this might affect the appropriate definition of the relevant market.

- Fourth, as noted in paragraph A.9, when markets contain products differentiated, for instance, by brand or quality, it may be difficult to define the market exactly. Given that the degree of product differentiation may vary over time and from one jurisdiction to another, caution is needed in the use of precedent in these cases.

The product market

A.11. As mentioned in paragraph A.1, market definition focuses on the empirical question of substitutability of products and services from the point of view of customers. When assessing product market scope, substitutability from both demand- and supply-side is commonly considered.

A.12. Demand-side substitutability assesses the extent to which customers could and would switch among substitute products in response to a change in relative prices or quality or availability or other features. When considering demand-side substitutability, it is generally useful to find out from the competitors which products they see as substitutes – as well as from customers where products are not sold directly to end-consumers.

A.13. Supply-side substitutability examines the extent to which suppliers of alternative products could and would switch their existing production facilities to make alternative products in response to a change in relative prices, demand or other market conditions. Some jurisdictions account for supply-side substitutability in the identification of competitors in the relevant market on the basis of the demand-side substitutability alone.

Analytical framework for assessing demand side substitutability

A.14. The market definition process starts by considering the narrowest candidate market definition. This is normally a product or service which one (or both) of the merging parties supply.

A.15. Conceptually, one approach that can be taken to analyse the degree to which customers could and would switch is by applying the so-called **hypothetical monopolist test**. Consider a hypothetical firm that is the only supplier of the product or group of products. The question to be answered is whether a monopoly supplier (the hypothetical monopolist) of these products would maximise its profits by consistently charging higher prices.

A.16. This test is also commonly referred to as the **SSNIP test** where 'SSNIP' stands for '**s**mall, but **s**ignificant **n**on-transitory **i**ncrease in **p**rice', i.e., a significant price

increase maintained over time. If the hypothetical monopolist would be prevented from imposing at least a small, but significant non-transitory increase in price because of substitution by customers to other products, the candidate market is not a relevant market by itself. The next closest product should be added to the scope of the candidate market and the test applied again. By repeating the process, a point can eventually be reached where a hypothetical monopolist supplying the products or services in question would achieve market power, i.e., the hypothetical monopolist would maximize profits by maintaining prices above prevailing levels. This point is (usually) the relevant product market. With regard to the size of price increase, the common benchmark used is between 5 and 10 per cent.

A.17. In practice, in many cases, there may be insufficient available data to conduct a full SSNIP test: in such cases, application of the SSNIP test is more likely to be conceptual rather than literal. In other words, the application of the test may be only a framework for analysis.[12] Further information on the hypothetical monopolist test can be found in the ICN 'Investigative Techniques Handbook for Merger Review'.

Investigative techniques used in assessing demand-side substitutability

A.18. In order to conduct the hypothetical monopolist test and be clear about the scope of the market, it is necessary to obtain evidence on possible substitution by customers between the parties' product (or service) and competing products (or services). Information required will vary from case to case. The following sources may be of help during the process:[13]

- Evidence on **characteristics and usage of products and consumer preferences** may provide useful information. Where the objective characteristics of products are very similar and their intended uses the same, this suggests that the products are close substitutes. However, the following caveats should be

[12] Apart from the issue of which prices must be used as the basis for the test, there are other issues arising from the strict implementation of the SSNIP test. One is whether the prevailing level of prices is already well above competitive levels (the so-called *Cellophane fallacy*). Another is that customers may take time to respond to a sustained rise in the price of the focal product. As a rough rule of thumb, it is generally accepted that if it takes longer than one year to substitute, the products to which customers eventually switched would not be included in the same market as the focal product. However, the one-year benchmark may not apply to certain markets and a case by case analysis of switching is therefore recommended.

[13] See the ICN Investigative Techniques Handbook for Merger Review (2005) for a comprehensive guide to techniques, tools and evidence used in merger review.

noted. First, even where products apparently have very similar characteristics and intended use, switching costs and brand loyalty may affect how substitutable they are in practice. For instance, in some markets, private-label (non-'brand name') products[14] might have a similar – or even identical – mix of ingredients to other products with a strong brand image, but not be in the same market. In other words, loyalty of consumers to branded goods might reduce the willingness of a sufficient number of them to switch to private-label products if the prices of branded products increased significantly. In other industries involving both branded and private-label goods, there may be sufficient switching at the margins to lead to the conclusion that they are in the same market. Evidence on the relevant consumer preferences in the market in question will provide the answer. Second, just because products display similar physical characteristics, this does not necessarily mean that customers would view them to be close substitutes. For example, customers may not view commuter rail travel during off-peak times to be a close substitute for rail travel at peak times. Third, products with very different physical characteristics may be close substitutes if, from a customer's point of view, they have a very similar use. For instance, disposable lighters and matches might be in the same market.

- It may be helpful to request from undertakings involved in the merger (or indeed other firms active in the market) their commercial strategies and other internal **documents** such as internal communications, public statements, and studies on consumer preferences, market research, advertising plans, general marketing plans or business plans. These may indicate which products the undertakings believe to be the closest substitute to their own products and may also provide information on which companies they consider to be their competitors.

- Customers and competitors can be interviewed. In particular, customers can be asked directly about their historical **buying patterns**, how they have responded to previous price rises and how they are likely to react to a hypothetical price rise. However, because of the hypothetical nature of this last question, answers may need to be treated with a degree of caution. Survey evidence might also provide information on customer preferences that would help to assess substitutability: for example, evidence on how customers rank particular products, whether and to

[14] These are goods that carry the brand of the retailer (e.g., a supermarket chain's 'own brand') but are often manufactured by a third party.

what extent brand loyalty exists, and which characteristics of products are the most important to their decision to purchase. Some care is needed here to ensure that responses are obtained from a truly representative sample. For example, it is useful to obtain evidence from customers of the merging parties and customers of competitors. Real care is needed in asking questions and analysing the views of competitors, since their self-interest may lie in promoting or undermining a merger that may decrease or increase the level of competition that they face.

- A significant factor in determining whether substitution is likely to take place is whether customers would incur costs in substituting products. High **switching costs** relative to the value of the product will make substitution less likely. The cost of switching may be established by questioning customers on any past experiences of switching.

- **Patterns in price changes,** for reasons not connected to costs, can be informative. For example, two products showing the same pattern of price changes, for reasons not connected to costs or general price inflation, would be consistent with (although not proof of) these two products being close substitutes. Pricing data may be obtained from the merging parties and from competitors. However, price correlations may be high for other reasons, and accordingly should be used with some care.

- Evidence of **product switching** by a relatively large proportion of customers to a rival product in response to a relatively small price rise in the product in question would indicate that these two goods are close substitutes. Equally, **price divergence over time**, without significant levels of substitution, would be consistent with the two products being in separate markets. One way to monitor this would be to look at pricing data over time and see whether the volumes of the respective products diverge in response to a price shock in one of the goods.

- Evidence on **own or cross price elasticities** of demand may also be examined if it is available. The own price elasticity of demand measures the rate at which the quantity of a product sold changes when its price goes up or down (the sensitivity of demand to changes in price). The cross price elasticity of demand measures the rate at which the quantity of a product sold changes when the price

of another product goes up or down. In reality it is generally difficult to find such information. It may be calculated by obtaining pricing and sales data from the parties and competitors. Alternatively, companies may have conducted their own internal research on such matters which may be requested.

- Evidence on the **price-concentration relationship** may also be informative. Price-concentration studies examine how the price of a product in a distinct area varies according to the number (or share of supply) of other products sold in the same area. These studies are useful where data are available for several distinct areas with varying degrees of concentration. For example, if observations of prices in several geographic areas suggest that when two products are sold in the same area, prices are significantly lower than when they are not, this might suggest that the two products are close substitutes (provided that it is possible to distinguish this from the effect of other factors which might explain the price differences). It should be noted that obtaining reliable pricing and sales information for such studies may be difficult and it may be difficult to account properly for differences in demand and supply conditions across different areas.

Analytical framework for assessing supply-side substitutability

A.19. If prices of product A rise, undertakings that do not currently supply that product might be able, at short notice and without incurring significant sunk costs[15], to switch from production of product B to supplying product A. This form of substitutability occurs in the production process of incumbent suppliers and hence is known as **supply-side substitutability**. It addresses the questions of whether, to what extent, and how quickly, undertakings would start supplying a market in response to a price increase in that market.

A.20. Supply-side substitutability can be thought of as a special case of entry. Indeed, a number of jurisdictions conduct supply-side analysis as an integral part of the entry assessment rather than as part of defining the market. Whichever approach is taken should not affect the overall analysis of the impact of the merger on competition. In the case of supply-side substitutability, 'entry' occurs quickly, effectively (on a scale large enough to affect prices), and without the need for significant sunk investments;

[15] See 'sunk cost' in the OECD Glossary of Industrial Organization and Competition Law (1993).

this type of entry is often called 'uncommitted entry' as opposed to 'committed entry'. The latter type of entry is discussed in Worksheet E.

A.21. Moreover, the mere fact that some firms producing a product B are able to quickly switch (or extend) supply to product A does not necessarily mean that (i) they can switch (or extend) supply entirely, (ii) they have incentive to do so and (iii) all firms producing B would do so. When considering the product market on the basis of supply-side substitutability, the competition authorities will require that most of the suppliers of product B will be able to offer and sell the various qualities of product A under conditions of immediacy (with the capacity that can be economically reallocated to product A) and in the absence of significant increase in costs before they conclude that product A and B are in the same market.

Investigative techniques used in assessing supply-side substitutability

A.22. As with assessing demand-side substitutability, establishing whether supply side switching is likely to occur requires evidence on possible substitution by suppliers. The following sources may be of assistance in compiling this evidence[16]:

- During the investigation process, undertakings that may have been identified by the parties or by the case team as potential suppliers might be asked whether substitution is technically possible, about the costs of switching production between products, and the time it would take to switch production. The key question to ask potential suppliers, however, is whether it would be *profitable* to switch production, given a small (e.g., 5 to 10 per cent) price increase.

- Potential suppliers might also be asked whether they have spare capacity or are free or willing to switch production. Undertakings may be prevented from switching because all their existing capacity is tied up, for example they may be committed to long term contracts. There might also be difficulties obtaining necessary inputs or finding distribution outlets. Undertakings may be unwilling to switch production from an existing product to a new one, if producing the former product is more profitable than the latter.

[16] See ICN Investigative Techniques Handbook for Merger Review (2005).

- Although potential suppliers may be able to supply the market, there may be reasons why customers would not use their products (for example, quality and reliability of supply), so the views of customers might also be sought. In this regard, the points made above regarding caution when sampling the views of customers are equally applicable here.

A.23. Competition authorities will almost certainly need to address the point that supply-side substitutability in the context of market definition relies on strict criteria. Candidate suppliers that do not meet these criteria should not be ignored. Enforcement authorities should sensibly note that such suppliers may well merit further attention as part of the consideration of new competitors entering the market (see Worksheet E).

BOX 1 – Product Market Definition: Case Studies

Dairy Farmers / SODIAAL (2000)

The US Department of Justice (DOJ) challenged the proposed acquisition by Dairy Farmers of America, Inc. of SODIAAL North America Corp. on the basis of likely anticompetitive effects in the sale of 'branded stick and whipped butter in the Philadelphia and New York metropolitan areas.' The Department concluded that consumers of branded butter in these metropolitan areas so preferred it over private-label (store brand) butter, as well as margarine and other substitutes, that a hypothetical monopolist over just branded butter in each of those areas would raise price significantly. This conclusion was supported by econometric evidence, derived from data collected from supermarkets, on the elasticity of demand for branded butter in Philadelphia and New York.

Pierre & Vacances / Maeva (2001)

In the case Pierre & Vacances / Maeva, the French Minister for the Economy adopted a conditional clearance decision in respect of the transaction involving Pierre & Vacances' acquisition of a competitor, Maeva. The Minister defined the relevant product market as the market for homogenous furnished residences ('résidences meublées homogènes'), both parties' principal line of business. Demand-side substitution was analysed utilising a SSNIP-test in order to assess whether customers could and would switch to other products (in particular hotels) in response to a price increase. In response to a request for information from the DGCCRF, Pierre & Vacances, as well as one of its competitors, had submitted surveys containing SSNIP-studies.
In the first survey, conducted on behalf of Pierre & Vacances, consumers had been asked what their reaction would be in the event of a 10% increase of Pierre & Vacances' residences prices: 45% of the respondents replied that they would then give up Pierre & Vacances' residences. This ratio was rather high, but according to the Minister the result should be viewed cautiously, since the clients could have had incentives to reply that they would leave when asked by Pierre & Vacances how they would react in the event of a price increase. The second survey, submitted by a competitor, suggested that a 10% price increase in the homogenous furnished residences sector would indeed be profitable. Having considered the reliability of the two surveys, as well as other evidence, the Minister concluded that homogenous furnished residences constituted a distinct relevant product market.

Quay Cruises Pty / Matilda Cruises (2005)

The Australian Competition and Consumer Commission (ACCC) cleared the proposed acquisition by Quay Cruises of Matilda's scheduled cruise and charter services businesses. This transaction was found to involve three candidate product markets: the markets for ferry services, charter services and scheduled cruises on Syd ney Harbour. The market definitions adopted for the charter services market and scheduled cruise market are an example of 'asymmetric' market definition.

Having concluded that a distinct market existed for ferry services in Sydney Harbour, the ACCC noted that cruises attracted different classes of customers: market inquiries suggested that scheduled cruises primarily attracted tourists while chartered cruises were used for various occasions including birthdays, weddings and corporate events.

The ACCC found that operators of scheduled cruises were likely to be able to launch charter services with minimal, if any, additional investment in response to any exercise of market power by charter service operators. On this basis, the ACCC considered that the charter services market included scheduled cruises.

In contrast, the ACCC considered that the market for scheduled cruises did not include charter services on the basis of limitations in both supply and demand side substitutability. In particular, charter service operators would incur significant investments in switching to scheduled cruises, for example, to obtain time slots for regular departures, ticketing outlet space and the commitment of tour operators.

The geographic market

A.24. The geographic market is an area within which reasonable substitution for the merging parties' products can occur, i.e. to which customers can look for supply. One approach to defining the geographic market is to conceptually consider the smallest area where a hypothetical monopolist would maximize its profits by imposing at least a small but significant and non-transitory increase in price. Geographic markets are defined using the same processes as those used to define product markets. The geographic market may be local or regional, national, continent wide or worldwide.

A.25. As with the product market, in assessing the appropriate geographic market, the objective is to identify substitutes which are sufficiently close that they would prevent a hypothetical monopolist of the product or service in one area from sustaining price increase of at least 5 to 10 per cent. The process starts by looking at the narrowest area. The hypothetical monopolist test is applied to this area and repeated over wider geographic areas until the hypothetical monopolist would sustain price rises of at least 5 to 10 per cent.

Imports

A.26. When considering whether the geographic market should be defined more widely than national, data on imports may be informative. Imports can exercise a competitive constraint such that the market may be defined wider than national. Thus, in most jurisdictions, imports are taken into account at the stage of geographical market definition. However, in some jurisdictions the geographic scope of markets is legally defined at national level and, consequently, imports are assessed at a later stage of the competition analysis when competitive constraints are analysed. Thus, in these cases, imports are seen more as a potential competitive constraint on the ability of merging parties of excising market power rather than as a factor relevant for the geographic market definition, and they are often considered in the context of entry (see Worksheet E).

A.27. Significant imports of a product may indicate that the market is wider than national. However, the presence of imports in a territory will not always mean that the market is international. In order to import on a larger scale and hence provide a sufficient constraint on domestic suppliers, international suppliers may require a presence in the country or substantial investments in establishing distribution networks or branding their products in the destination country.

A.28. Conversely, a lack of imports does not necessarily mean that the market cannot be international. If prices are the same and there are some (even very small) transportation costs, one would not observe any delivery from one region to another, even though they produce exactly the same good and the regions are next to or near one another. For market definition purposes, the key question is whether the potential for importers to supply a country constrains the pricing of domestic suppliers, e.g., by constituting a competitive threat which would make price increases unprofitable.

A.29. Additionally the following questions may be relevant to the assessment:

- Are transport costs in relation to the value of the product an important factor? The higher the value of a product relative to its transportation costs, the more likely customers are to travel further in search of cheaper supplies and the more likely suppliers located in other areas are willing to start supplying into the area.

- Do consumers require a local presence in order for the supplier to be able to provide the services?

- Are there any import duties or anti-dumping quotas that may limit the geographical scope of a relevant market by raising the costs of suppliers from outside of a particular jurisdiction?

- Are consumers constrained by the distance they are able or willing to travel? Geographic markets are often very narrow for retail consumer products. For wholesaling and manufacturing markets, customers may be in a better position to switch between suppliers in different regions providing transport costs are not too high.

- Are there any language barriers that may prevent cross-border trade?

- Is it necessary for a company to have a presence in the country where its customers are located to have a full understanding of national legal or regulatory requirements? This may particularly be the case where financial products and services are involved.

- Is it necessary for a company to have a presence in the country where its customers are located to provide adequate after-sales services?

- Is there a requirement for national or regional regulatory authorizations? For example, this may be relevant in the case of chemical products (such as pharmaceuticals or insecticides). The need to obtain regulatory approval may prevent easy importation and exportation of products and hence the geographic scope would be national.

- Why is the geographic supply of the current participants limited to its current scope (e.g., distribution network may be a barrier)? Is there potential for them to expand easily?

BOX 2 – Geographic Market Definition: Case Studies

Compañia Industrial de Parras, S.A. de C.V., with Textiles Kamel Nacif S.A.de C.V., and Inmuebles Kamel, S.A. de C.V. (1994)

In 1994, the Federal Competition Commission of Mexico (FCC) analysed the acquisition by Grupo Parras, a company which had a major share in national denim production, of one of its strongest competitors.
To identify the relevant market affected by the merger, the Federal Competition Commission (FCC) of Mexico analysed the wide variety of weights and qualities of denim. The Commission concluded that the concentration would affect the market of high quality denim, in which the buyer would account for 100% of total domestic production.
The FCC studied import conditions, concluding that Argentina, Colombia, the United States of America, Hong Kong and Uruguay supplied denim to Mexico, and could all be regarded as feasible alternative sources of supply, for several reasons. First, denim import duties were relatively low; in the case of the United States of America, they were reduced to zero as a result of the North American Free Trade Agreement. Second, these countries had an abundant supply of denim for export, as they all had major export producers. Third, prices offered by these countries were below those offered by domestic producers. Finally, transport costs were relatively low, at less than 3%r of the aggregate product value.
The foregoing arguments prompted the Commission to consider both present and potential imports as elements which would limit substantially the likelihood that the merger, though resulting in high market concentration, would give the resulting company substantial power in the high quality denim market. This did not eliminate the possibility of merger induced price increases, but it did imply that these changes would be small and transitory, most likely for less than one year.

Granarolo / Centrale del latte di Vicenza (2001)

The Italian Antitrust Authority prohibited a concentration affecting the dairy sector in its *Granarolo / Centrale del latte di Vicenza* decision. The Authority found that the transaction would have given rise to anticompetitive coordinated effects on the market for the sale of fresh milk in the Veneto region in Italy.
The Authority defined the relevant product market with reference to differences in perishability rates, taste and nutritional qualities between fresh and long-life ('UHT') milk. These product characteristics also influenced the definition of the relevant geographic markets. In order to ensure an adequate shelf-life of the product, producers distributed the milk within a few hours of bottling. Moreover, the legislative framework mandated a sell-by date of no more than four days from the date of bottling. These factors placed constraints upon producers to disperse fresh milk within a radius of a few hundred kilometres from the different production sites. The geographic markets were found to be regional in scope. The Authority found that the need for companies to rely on an established local presence, in particular by owning trademarks which were renowned locally, contributed to this finding. The Authority found that this was confirmed by the largest competitors' strategies: producers operating on a national basis preferred to acquire local producers (and to adopt a co-branding strategy, using their own brand in combination with the local one) rather than competing against them using their own, nationwide, trademarks.

Hospital merger (2005)

In March 2005, the Bundeskartellamt prohibited Rhön-Klinikum AG (Rhön) from acquiring the two local hospitals. Rhön was one of the leading private hospital groups in Germany operating 30 clinics in Germany. The product market defined was the market for acute hospitals. In geographic terms, the Bundeskartellamt defined two local relevant markets. The geographic market definition was based on a very comprehensive survey of patient flows within a greater area of about 100 x 120 kilometres. The investigations showed that the vast majority of patients only chose hospitals located within a relatively short distance to their home. Thus only hospitals nearby could act as a competitive constraint on the

merging parties. However, in order to take account of the real hospital choice decisions by patients, the local markets defined were not confined to the hospitals *located* within the district. Rather the Bundeskartellamt defined the local markets according to the hospital services demanded by patients *residing* in the district, so that hospitals in vicinity to the district were also taken into account. In the Bad Neustadt / Bad Kissingen market, an area in which Rhön already owned five clinics (as well as a further three clinics in the surrounding area), its market shares would have increased by approx. 25 per cent to approx. 65 per cent, and in Meiningen to approx. 60 per cent according to this market definition.

CHAPTER 4: WORKSHEET B – MARKET STRUCTURE AND CONCENTRATION

Introduction

B.1. After defining a relevant product and geographic market, it is possible and usually appropriate to consider its structure and how it will change as a result of the transaction under review.

B.2. Key aggregation indicators used in assessing market structure and concentration include market shares, concentration ratios and the Herfindahl-Hirschman Index (HHI). Each of these is discussed below. It is essential to note that each of these measures may be used as an *initial* indicator or screen of *potential* competition concerns[17], but will not be determinative in itself. An investigation beyond these quantitative indicators, including a detailed analysis of other market features as well as unilateral and/or coordinated effects, is always required before conclusions can be drawn regarding the competitive effects of a merger.

B.3. This worksheet explains the most commonly used measures of market concentration and gives guidance on how to interpret them. Subsequent worksheets explain how to complete the assessment of possible issues arising from mergers in more concentrated markets.

Economic rationale

B.4. If, in the case of a horizontal merger (see chapter 3), A and B merge, the market shares of A, B and each of their rivals can give an initial indication of whether the loss of competition between A and B is important or, conversely, whether the remaining competitors can be expected to constrain the merged entity so much that this 'loss' is not relatively important. Generally, the higher the combined market shares of the merging firms, the more likely that the loss of competition will be important. Other

[17] In jurisdictions where an agency must challenge a merger in a judicial court, this may take the form of a rebuttable presumption.

concentration data can be an indicator of competitive pressure within the market. Broadly speaking, the fewer the number of firms in a market, the more likely the removal of an independent firm will present a loss of an important competitive constraint on the remaining firms (absent the other factors considered in later worksheets below). However, as said, concentration measures are only an initial screen in assessing the competitive effects of a merger.

Use of concentration measures

B.5. There are several measures of market concentration. These concentration measures may be used to set thresholds to identify those mergers that are more likely to raise competition concerns and therefore require investigation. Data on market shares may be collected from a number of sources including trade associations, customers or suppliers and market research reports.

B.6. It is of critical importance that the gathered data give a good indication of how competition works in a given market. Production volumes and sales volumes are most widely used. Sales volumes may be more useful in differentiated goods markets as sales better reflect differences in product value. Capacity or reserves may also be used (for example where the product concerned is a trade commodity and production capacity therefore represents the best indication of competition strength). In bidding markets - where customers periodically invite suppliers to tender for a significant proportion of their respective demand - the number of credible bidders may be used. Before the effects of the merger can be assessed, it may be necessary to adjust current market shares to reflect expected or reasonably certain future changes, such as firms likely to exit from the market or the introduction of additional capacity – see the section of chapter 2 on the counterfactual.

B.7. It may be difficult to obtain figures on which to conduct concentration calculations based on the defined economic market. It is likely that available statistics are not normally collected on this basis. Figures available by product may, for example, have to be aggregated to the relevant product market and many statistics are collected on a national basis whereas this may not be the geographic market identified.

B.8. It may be useful to ask parties to compile and provide estimates of market shares. If this is done, it is essential to ask the parties how the data have been compiled, what sources have been used and what assumptions have been made in doing so. It is helpful to test the accuracy of these estimates with customers and competitors when conducting third party questioning.

Measures of concentration

Market shares

B.9. Market shares indicate the percentage of total sales (or some other measure) of the product to be held by the merging firms and each of their rivals in the relevant market. Thus, they are indicative of the past market success of each firm in the relevant market. For most competition authorities, market shares are the starting point of the merger review.

B.10. An important indicator is the combined share of the merging parties, i.e, the sum of their pre-merger shares. The combined share of the merging parties and the increment in market share resulting from the merger are typically considered as useful screens for possible unilateral effects scenarios. It is also helpful to compare the combined market share with those of other market players.

B.11. Mergers creating a high market share for the merging firms are those that are most likely to raise competition issues. It is generally the case that mergers with an insignificant combined market share may be cleared fairly quickly. Some caution is needed in markets of differentiated products, as market definition itself is more complex in these cases.

B.12. Market shares provide only a snapshot of the structure of the relevant market at a point in time. However, in some markets, e.g., those characterised by large and infrequent orders made by a small number of customers, it might be useful to analyse market shares over a period longer than one year using historic data, and investigate any variance in market shares over time. Also, changes in historic market shares may provide useful information on the competitive process and its dynamic evolution: for instance, a distribution of market shares among the market participants that varies

considerably over a relatively short time period might be suggestive of a competitive situation where no firm has market power; conversely, the persistence of a more rigid pattern (e.g., a firm's market share is consistently above, say, 50 per cent over a long time horizon) may be indicative of a situation of market power.

Concentration ratios

B.13. Concentration ratios measure the aggregate market share of a small number of the leading firms in a market. Concentration ratios of the first three (CR3) or four (CR4) or five (CR5) firms are usually considered. They are absolute measures of concentration and take no account of differences in the relative size of the firms that make up the leading group. By way of example, the CR3 ratio in a market where the three largest firms within that market each have shares of 15 per cent would be 45 per cent.

Herfindahl-Hirschman Index (HHI)

B.14. The HHI is calculated by summing the squares of the market shares of all the firms active in the market. The HHI potentially reflects both the number of firms in the market and their relative size.[18] Both the absolute level of the HHI and the change in the HHI as a result of the merger can provide an indication of whether a merger is likely to raise competition concerns. The increase in HHI (or delta) can be calculated by subtracting the market's pre-transaction HHI from the post-transaction HHI.[19] For example:

> In a given market, there are six firms. Firm A (with 20 per cent market share) merges with firm B (with 5 per cent share). Three of the other four firms each have 20 per cent shares and one has 15 per cent. The post-merger HHI is:

$$25^2 + 20^2 + 20^2 + 20^2 + 15^2 = 2,050$$

[18] The HHI index can vary between 0, when the market is entirely fragmented, and 10,000, where there is only one firm in the market which has 100 per cent of the market share.

[19] The expected post-transaction HHI is calculated on the basis of the combined pre-merger market shares of the merging parties, provided that the merger does not alter market shares. Thus, a market comprising firms a, b, c and d will have an HHI of $a^2+b^2+c^2+d^2$. The delta in this market resulting from a merger between firms a and b can be calculated as $((a+b)^2 + c^2+d^2) - (a^2+b^2+c^2+d^2)$. Hence, = 2ab.

The pre-merger HHI is:

$$20^2 + 20^2 + 20^2 + 20^2 + 15^2 + 5^2 = 1,850$$

The increase in HHI (or delta) = 200.

B.15. Other things being equal, competition authorities should worry more about a merger in a market which is highly concentrated than about one which occurs in a fragmented market. For the same reason, and whatever the existing *level* of concentration, competition authorities should pay more attention to a merger which increases in a significant way industry concentration than to one which increases it only marginally.

B.16. It is frequently not possible to calculate the HHI for the entire market because not all participants' shares are known. In such cases it may be considered more appropriate to use another concentration measure or calculate and evaluate only the increased HHI or delta (i.e., twice the product of the market shares of the parties – see footnote 19). Alternatively, provided that shares accounting for the majority of the market are known, the HHI can be approximated even if share data for the smaller firms are not known.

B.17. Although it is difficult to generalise as to whether one measure of concentration is superior to another, the HHI arguably provides richer and less arbitrary information than concentration ratios such as CR3 and CR4 as it provides information relating to the whole of the market rather than some of the firms (usually the largest firms). It takes account of the relative sizes of the larger firms and avoids arbitrariness. If, for example, CR4 is used then a merger between the fifth and sixth largest firms might show no change in the concentration ratio, whereas a merger between the fourth and tenth largest would.

Interpreting market shares and concentration data

B.18. There is no simple answer as to how high (or low) concentration measures need to be to prompt (or dismiss) concerns about the impact of a merger on competition. The same applies to the combined market share of the merged entity. The project

conducted by the Analytical Framework subgroup in 2005 comparing merger guidelines across a number of countries found that some jurisdictions do include 'safe harbours' (a market share and/or concentration level below which a merger will not be challenged) when assessing mergers. Safe harbours can be useful, for instance, since they may increase the predictability of merger control and allow competition authorities to allocate investigation resources to cases which are more likely to result in consumer harm.

B.19. Even where the merging parties' combined market shares appear reasonably low, for example below 25 per cent, a merger may still raise a competition issue. For example, supplier A (14 per cent share) merges with supplier B (10 per cent), leaving only two suppliers, the merged entity AB (24 per cent) and C (76 per cent). The post-merger HHI is 6,352 and the delta is 280. In this example the high value of the HHI statistics may indicate the possibility that the impact of this merger on a market that is already highly concentrated can raise some competition issues.[20] By contrast, competition concerns may arise even with a relatively low post-merger HHI, for example, where the merging firms (say, with 20 per cent and 15 per cent shares) are the two largest in a fragmented market (say, all other suppliers are 3 per cent or less) or where they have some characteristic that is not enjoyed by the other players in the market. These examples show that market shares and HHI measures provide only an initial indicator of potential competition concerns.

B.20. Apart from this, these measures may themselves be rather inaccurate in some markets. For instance, in 'bidding markets' contracts may be awarded infrequently and a one-year snapshot of supply may not reflect the true position of companies within that market. In such cases, as noted in paragraph B.12 for market shares, it is important to analyse market concentration data based on supply over several years. It is helpful and telling to assess variations in the market over time not least because volatile shares may reflect lumpy demand in bidding markets or be suggestive of effective innovation competition by firms periodically launching new products or product iterations.

B.21. With regard to the HHI level, in some jurisdictions competition authorities state they are unlikely to identify competition concerns where: (i) the post-merger HHI is below

[20] However, in the absence of any collusion, AB might be a more effective competitor to C than A and B individually.

1000; (ii) the post-merger HHI falls between 1000 and 1800-2000, and the change, or delta, is below a range of 100-250; and (iii) the post –merger HHI is above 1800-2000, and the delta is below 50-150.

B.22. In these jurisdictions, the HHI levels act as 'safe harbours' for merger review. However, they may be less indicative in certain circumstances, e.g., when one of the merging parties, despite its small market share, has a competitive advantage (e.g., as an innovator) or when there are significant cross-shareholdings across the firms in the relevant market.

B.23. It should also be noted that these HHI indicators, though used by some agencies, are not used by all, and that, also among agencies that use them, the probative significance attached to them may vary.

B.24. Jurisdictions that utilise market shares as a screen similarly set out 'safe harbours'. For instance in the EU, mergers are unlikely to raise competition concerns if the combined market share is below 25%. By contrast, large market shares - 50% or more - may be in themselves evidence of the existence of a dominant market position. In Germany, a market share of more than 33% may be indicative of single-firm dominance. Also the US Guidelines set out that where market shares exceed 35%, competition concerns may arise in the context of unilateral effects.

BOX 3 – Use of Concentration Measures – Cases Studies

Interstate Bakeries / Continental (1995)

The US Department of Justice challenged Interstate Bakeries Corp.'s purchase of Continental Baking Co., alleging that the purchase likely would have produced significant price increases for white pan bread in five major metropolitan areas. The Department considers several alternative bases for assigning market shares and measuring concentration. The Department did not assign shares on the basis of productive capacity because white pan bread was a highly differentiated product and therefore the ability to sell the product was not congruent with the ability to produce it. The Department therefore concluded that a measure of actual retail sales was the proper basis for assigning shares. Assigning shares on the basis of the number of loaves sold was problematic because several different sizes of loaves were sold. Ultimately, the Department assigned shares both on the basis of pounds of bread sold and dollars of retail sales thereby generated. The merging firm's shares were significantly larger when assigned on the basis of revenue rather than weight, but they were substantial either way.

Gencor / Lonrho (1996)

This case concerned the proposed merger of the platinum activities of Gencor and Lonrho and the main issue analysed by the European Commission was the likelihood of coordinated effects. However this merger is also interesting because it involved a market where production is limited by a crucial input and thus existing reserves are more informative than market shares. In fact, for the purpose of competition analysis, it would be meaningless to report that a certain firm has (or had), say, a 20% market share if its reserves will be completely exhausted in a short time period: since the future market share of the firm is going to be nil, this firm will not exercise any competitive constraints on its rivals.

In the merger in question, the EC considered the market shares based not only on the actual production of platinum but also on the reserves. In 1995, the main suppliers in the relevant world-wide market of platinum were three companies (Gencor, Lenrho and Amplats) and Russia. The estimated combined market share of the parties was less than 35%. However, the merger would have reduced the number of companies controlling platinum reserves in South Africa (accounting for about 90% of world reserves at the time) from three to two. Together these two firms would have accounted for about 70% of world supply. Supply from other sources, including Russia, was fragmented.

De Persgroep and Rossel / Uitgeversbedrijf Tijd and Editeco (2005)

In 2005, the Belgian Competition Council approved with conditions two concentrations in the media sector. The transactions involved the subsequent acquisitions by two media and publishing groups, De Persgroep and Rossel, of the publishers of the two financial newspapers in Belgium, respectively De Tijd (Dutch-language) and L'Echo (French-language).

The Council found that the overlap between Rossel (with a share of the relevant market exceeding 50%) and Editeco (having a market share of around 5%) might be considered de minimis on the basis of the increment in market share alone. However, the Council considered that the overall market concentration levels called for a detailed competition analysis: the pre-merger HHI for the relevant market (commercial advertisements) of 4,109 would increase by a delta of 665. The parties proposed, and the Council accepted, commitments which removed unilateral effects-type competition concerns arising from the transaction. The Council abstained from opening a second phase review.

CHAPTER 4: WORKSHEET C – UNILATERAL EFFECTS

Introduction

C.1. The previous worksheet considered ways to measure the impact of mergers on the level of concentration in a particular market. This worksheet explains some possible anti-competitive effects arising from mergers. The focus of competition analysis is on evaluating how the competitive incentives of the merging parties and their rivals might change as a result of the merger.

C.2. Key to the assessment of mergers is the comparison of prospects for competition in a market with and without the merger, as explained in the section of chapter 2 on the counterfactual.

C.3. There are two mainstream theories of harm by which a horizontal merger might be expected to be detrimental to consumer welfare: unilateral effects and coordinated effects. Unilateral effects are the subject of this Worksheet. Coordinated effects are discussed in Worksheet D.

Economic rationale

C.4. Unilateral effects, also known as 'non-coordinated effects', refer to the situation where the anti-competitive effects of the merger flow from non-coordinated action by market participants. In particular, unilateral effects arise where, as a result of the merger, the merging firms are able to exercise market power, for example, by profitably raising price, or reducing output or quality or variety (or changing any other competitive parameter) as a result of the elimination of competition between the merging parties themselves.

C.5. The most common unilateral effects scenario involves a merger of sellers of differentiated products competing on the basis of price. For instance, a firm producing product A merges with a firm supplying B. A pre-merger price increase of

product A would result in customers diverting their purchasing to product B (and other rival products). Post merger, profits on sales lost to B will no longer be lost, but be kept or 'internalised' by the merged group producing A and B. It therefore has an incentive to raise the price of A. In addition, the firm may find it profitable to raise also the price of the acquired products, since it will recapture some of the lost sales through higher sales of its original products (in other words, retain business that pre-merger would have diverted from B to A).

C.6. Other firms in the market may also find it profitable to raise their prices – to continue the same example - because the higher prices of the merged firms' products will cause some customers to switch to rival's products. In other words, even if rival firms pursue the same competitive strategies as they did prior to the merger, this can result in their increasing prices following a merger. In such cases, the firms in the marketplace are not coordinating their competitive behaviour; they are simply reacting to changes in each other's behaviour. Such instances of anti-competitive effects are still termed 'unilateral' (sometimes called 'multi-lateral') by merger analysts since they are based on non-coordinated actions of firms.

C.7. The central economic question when assessing the foregoing unilateral effects scenario is whether, after the merger, sufficient customers switch to products of the merged firms' competitors so that in the event of a price increase the merged firm would lose sufficient sales to make a significant price increase unprofitable. Put differently, the critical issue for the investigating authorities is the assessment of the extent to which the merging parties' products are close substitutes (the diversion effects from A to B).

C.8. Unilateral effects can also arise in other contexts, including bidding or auction markets, where different firms compete to win orders. The specific model used will vary depending upon the circumstances of the market, but should have a common thread of attempting to assess whether there is any increase in market power as a result of the merger, for example, by combining the two lowest-cost bidders and thus allowing the merged firm to win with a higher bid.

C.9. The anti-competitive effects of a merger may not be limited to price increases. Indeed, when a company faces less competition it may have less incentive to produce products of such high quality or may reduce the range of products that it

offers. Additionally, without competition firms may have less incentive to invest in improving their products and hence innovation may be dampened. All these factors should be considered in assessing unilateral effects.

C.10. Assessing in practice the closeness of the merging parties' products can be a very difficult task. Sources of information that might be checked against each other are:

- the parties' internal documents – such as (a) business plans, marketing plans, and similar documents which are usually prepared in the ordinary course of business and which will often identify a firm's principal competitors; and (b) documents relating to board or other senior management approval to proceed with the merger;

- customers' views in markets where the products are not sold directly to end-consumers.

- third party documents such as market intelligence reports, analysts reports, and so on.

- documents provided to other competition authorities (assuming confidentiality rules can be addressed).

C.11. Further information on evidence-gathering and quantitative techniques can be found in the ICN's Investigative Techniques Handbook.

Factors in understanding broader competitive constraints

C.12. When examining whether there will be non-coordinated effects arising from the merger, the following may be considered relevant factors:

- **Low barriers to entry or expansion** – Entry by new competitors or expansion by existing competitors may be sufficient in time, scope and likelihood to deter or defeat any attempt by the merging parties to exploit the reduction in rivalry following the merger. This aspect is discussed in detail in Worksheet E below.

- **Buyer power** - The competitive pressure on a supplier is not only exercised by competitors but can also come from its customers. Even firms with very high market shares may not be in a position, post-merger, to exercise market power if customers possess countervailing buyer power. In this context countervailing buyer power means the bargaining strength that the buyer has vis-à-vis the seller in commercial negotiations due to its size, its commercial significance to the seller and its ability to switch to alternative suppliers. Countervailing power may also exist where a buyer is capable of producing the supplied product itself (through vertically integrating) or alternatively, directly importing the product. The factors to consider in making an assessment of buyer power would be (i) whether or not the customer can credibly threaten to resort, within a reasonable timeframe, to alternative sources of supply; and (ii) whether or not the buyer is able to refuse to buy products produced by the supplier or (in the case of durable goods) delay purchases. It is more likely that large and sophisticated customers will possess this type of countervailing buyer power than smaller firms in a fragmented market. Furthermore, buyer power cannot sufficiently offset the adverse effects of a merger if it only applies in relation to certain categories of customers. Finally, it is not sufficient that buyer power exists prior to a merger, it must also exist and remain effective following the merger.

- **The nature of competition within the market** – Sometimes buyers choose their suppliers through a bidding or auction process for example through procurement auctions or tenders. In some circumstances, even if there are only a few suppliers, competition might be intense. This is more likely to be the case where tenders are large and infrequent (so that suppliers are more likely to bid), where suppliers are not subject to capacity constraints (so that all suppliers are likely to place competitive bids), and where suppliers are not significantly differentiated (so that for any particular bid, all suppliers are equally placed to win the contract). Under these circumstances, a merger would not produce significant unilateral anticompetitive effects even if the merged entity had a high market share.

- **The merging parties may not be close competitors** – In this case pre-merger market shares may not be a good indicator of levels of rivalry between the merging parties, for example their products may be differentiated such that they are not close competitors (while still forming part of the same relevant market).

- **Responsiveness of competitors** – In some cases, competitors can react by either increasing output (if spare capacity is available) or repositioning in order to place a constraint on the parties post merger.

- **Alternative suppliers exist to whom customers are willing to switch** – If there is a number of alternative suppliers to whom a significant number of customers are willing to turn, the threat of losing these customers may be enough to place a constraint on the merging parties. However, in product markets differentiated by brand or reputation, this is unlikely to happen even if customers face very low switching costs.

- **Elimination of a potential competitor/new entrant** – Some firms have more of an influence on the competitive process than their market shares or similar measures would suggest. A merger involving such a firm may change the competitive dynamics in a significant, anti-competitive way, in particular when the market is already concentrated. For instance, a firm may be a recent entrant that is expected to exert significant competitive pressure in the future on the other firms in the market. In markets where innovation is an important competitive force, a firm with a relatively small market share may nevertheless be an important competitive force if it has promising pipeline products.[21]

- **Merged entity able to hinder expansion by competitors** – Post-merger, the merged entity may be in a position where it would have the ability and incentive to make the expansion of smaller firms and potential competitors more difficult. For instance, the merged entity may have such a degree of control, or influence over, the supply of inputs or distribution possibilities so that expansion or entry by rival firms may be more costly. Similarly, the merged entity's control over patents or other types of intellectual property (e.g., brands) may make expansion or entry by rivals more difficult. In markets where interoperability between different infrastructures or platforms is important, a merger may give the merged entity the ability and incentive to raise the costs or decrease the quality of service of its rivals.

C.13. Note that this is not a checklist of factors or characteristics that must all be present before unilateral anti-competitive effects can be dismissed. These factors are

[21] See OECD, Merger Review in High Innovation Markets (2003).

intended simply as a broad indication of the circumstances in which it may be concluded that the risk of such anti-competitive effects is lower or higher. Equally, the presence of such factors may not on its own be sufficient to alleviate – or their absence sufficient to support - anticompetitive concerns. The weight given to factors needs to be considered within the context of the case.

BOX 4 - Unilateral effects: Case Studies

Kimberly-Clark / Scott (1995)

Kimberly-Clark Corp. and Scott Paper Co. were two of the leading US producers of consumer paper products when they announced their intention to merge. In facial tissue, Kimberly-Clark and Scott, together with Procter & Gamble, accounted for nearly 90% of all sales, and Kimberly-Clark's Kleenex brand itself accounted for over half of sales. By estimating the relevant demand elasticities using scanner data, the US Department of Justice determined that Scott's facial tissue products imposed a significant constraint on Kimberly-Clark's prices. Likewise, in baby wipes, in which Kimberly-Clark and Scott's brands together accounted for approximately 56% of sales, the Department's analysis indicated that each was the other's most significant competitive constraint. Hence, the Department concluded that acquiring Scott's facial tissue and baby wipes businesses likely would give Kimberly-Clark an incentive to increase prices significantly for the merging brands. The Department therefore challenged the proposed merger.

Volvo / Scania (2000)

Unilateral effects analysis was at the heart of the EC case Volvo/Scania (2000). This merger case concerned the acquisition of truck producer Scania by Volvo. The merger would have led to very high combined market shares (over 50%) in a number of Northern European countries. The market investigation also showed that in these countries Volvo and Scania were each other's closest competitors, pursuing similar strategies and with a very similar brand image. The European Commission observed in this respect that variations in the market share of one merging firm typically corresponded to a variation in the opposite direction of the market share of the other merging firm. On this basis, the Commission concluded that the proposed concentration would remove Scania and Volvo as each other's main source of competitive pressure from the market, thereby leading to increased prices in the market for heavy trucks.

IBM / SBCS (2004)

The Irish Competition Authority blocked the deal between Schlumberger Business Continuity Services (Ireland) Limited ('SBCS') by IBM Ireland Limited ('IBM'), because the proposed merger would have created a super-dominant position in the market for business recovery services.

In analysis of unilateral effects, the Authority found that the merging parties were the two closest competitors and that the elimination of the competitive constrain provided by SBCS would have harmed customers in a significant way. The analysis concentrated on several factors: barriers to entry were high; the nature of the competition within the market was such that only the two merging parties were able to provide the high standard of reliability of service and quality required by a core group of customers; in other words the existing suppliers lacked the requisite capability, capacity, industry reputation and experience to constrain a short-run exercise of market power; finally, switching costs were high since moving to other suppliers would have undermined the relationship with their current supplier.

CHAPTER 4: WORKSHEET D - COORDINATED EFFECTS

Introduction

D.1. This Worksheet focuses on the other main way in which the competitive incentives of the merging parties and their rivals might change as a result of the merger. Firms, under certain market conditions, may not compete effectively against one another but rather coordinate their behaviour in an anticompetitive way which can take various forms, e.g., coordination on price or output or coordination via customer/market allocation. Such coordination results in a loss of consumer welfare.

D.2. Such behaviour need not rise to a form of collusion that is prohibited in most jurisdictions by provisions relating to cartels. Given certain market conditions, firms realise that it is in their mutual interest to coordinate or align their market behaviour. However, coordination requires far more than the mere decision of firms not to compete.

Economic rationale

D.3. Coordinated effects may arise where a merger reduces competitive constraints in a market, thus creating or strengthening the conditions that facilitate the ability of competitors to coordinate their competitive behaviour. The main question in analysing coordinated effects should be whether the merger materially increases the likelihood that firms in the market will successfully coordinate their behaviour or strengthen existing coordination.

D.4. The task is to identify what factors are likely to lead to coordination taking place between firms post-merger. This was a controversial area with which competition authorities and courts have struggled to come to terms over the years, but experience has led to the emergence of some agreement on what conditions are most likely to give rise to coordinated effects. These conditions are discussed below and their relevance depends on the type of coordination.

D.5. However, it must be borne in mind that these conditions are merely a starting point and that they must not be applied as a 'checklist'. The issue is whether the authority can develop a coherent theory that takes into account all the evidence available and can explain (i) how the market works currently, and (ii) how the merger will make coordination more likely or stronger still (e.g., more widespread, or longer-lasting).

Assessing the competitive constraints

D.6. In order for coordination to be successful, three conditions must be met in the market or be created by a merger:

- First, the participants in the market must be able to identify terms of coordination, for example, the use of posted prices.

- Second, it must be costly for firms to deviate from coordination; so costly that it will be in each coordinating firm's interest to go along with the coordinated behaviour rather than 'cheat', e.g., through its own alternative pricing strategy. For these incentives to hold, participants may need to be able to detect and possibly 'punish' cheating; and

- Third, the surrounding competitive constraints must be weak. For example, the threat from players 'outside' the common strategy, including possible market entrants, must be too weak to destabilise any coordinated behaviour.

D.7. In what follows we consider each of these three conditions in turn. Determining whether each of these three conditions that are favourable to coordination may be expected to arise in a given case requires an assessment of the structure of the relevant market, its characteristics, and any history of coordination. Where a cartel has been detected in the relevant market in the past, this may serve as strong evidence that all three conditions are fulfilled, provided that market conditions have not changed significantly since.

First condition: identifying terms of coordination

D.8. In order to coordinate, firms need to achieve some kind of understanding as to how to do so. This need not involve an explicit agreement on what price to charge, market share quotas, or the quality of products to be attained. Nor is it necessary for the firms concerned to coordinate prices around the monopoly price, or for the coordination to involve every single firm in the market. However, it is sometimes possible for firms to find a 'focal' point around which to coordinate behaviour. Market transparency, product homogeneity, and stability of the relevant firms are key elements in giving the firms the ability to align on terms of coordination. But the relevant factors are highly dependent on market facts, how competition works in the market and how coordination would work.

Evidence

D.9. Examples of the **evidence** often taken into account when determining the extent to which firms are able to align behaviour in a given market include the following:

- **Market transparency** – the more readily information on firms' competitive offerings (in particular, prices or which customers they serve) is available, the easier it will be for firms to align behaviour. If coordination takes the form of customer or market allocation, all that is required is to observe who supplies whom, which may be an easy task. Also, the smaller the number of firms the easier it will be for them to align with each other.

- **Product homogeneity** – the more homogenous products or services are on a given market – and the smaller the range of products – the easier it will be for firms to compare their competitors' offerings and price accordingly. If products are not homogenous, e.g., where each product/service is provided on an individually customised or 'bespoke' basis, or where many variables are taken into account in determining prices, it will be more difficult for firms to arrive at a common understanding. However, product homogeneity is not relevant when cooperative behaviour takes the form of customer allocation.

- **Existence of 'maverick' firms** – if one or more firms in the market is a 'maverick firm', coordination may be difficult to sustain. A maverick firm is a firm whose

strategy is different from the majority of firms because of lower costs or other differences, but nevertheless is rational for itself. Alternately, if the maverick firm is one of the merging parties, then the likelihood of coordinated behaviour may rise because the merger eliminates the differences that led to maverick behaviour. In general, the more symmetrical are the cost structures of the firms in the market, the easier it may be for them to coordinate behaviour.

- **Cross-shareholding** – if a firm has equity participation in a competitor, the scope for collusion may be enhanced. Links between competitors can make it easier to coordinate pricing and marketing policies, or to exchange information on these matters. Also, incentives to compete might be reduced in such cases given that the financial performance of the firm is affected by the profits of the competitor in which the firm has participation.

Second condition: costly for firms to deviate from coordinated behaviour

D.10. Though coordination is in the collective interests of the group of coordinating firms, it is normally in firms' short-term individual interests to 'cheat' on the coordination by cutting price, increasing market share, or selling outside 'accepted' territories. If coordinated behaviour is to be maintained, any such 'cheating' must be in some way observable directly or indirectly. For coordination to be sustainable the market concerned should therefore be sufficiently transparent that firms can monitor the important terms of competition with a view to detecting cheating in a timely way and responding to it. Firms might have credible ways of 'punishing' any deviation from the coordination, for example, by rapidly cutting prices or expanding output. More generally, it may be sufficient for coordinated behaviour that participating firms have a strong incentive not to deviate from the coordinated behaviour (such as experience of a previous period of strong competition).

D.11. A competition authority seeking to assess how incentives are structured within a particular market will have to gain an in-depth understanding of the competitive interaction within the market in question in order to assess whether coordination would be sustainable. Often past behaviour and even anecdotal evidence will assist in building up this understanding.

Evidence

D.12. Notwithstanding these difficulties, it is possible to identify some evidence useful in assessing the applicability of this second condition concerning the stability of the coordination.

- **Market transparency** - In some forms of coordination, it is necessary for suppliers to obtain details of competitors' offerings. If such data is not readily available to the suppliers, it will be more difficult for firms to monitor one another's behaviour and ensure that coordination is maintained.

- **Market stability** - If overall and firm-level demand in a given market is stable and the market is mature, it will be relatively easy for firms to detect movements resulting from a change in competitive behaviour by another firm and respond accordingly. Information on past trends within a market, such as growth in sales, entry and exit by firms, and relative market shares will often provide a good starting point when assessing the current state of a market and its likely future development. Also, demand stability depends on the regularity and frequency of orders. An unexpected large order may give an incentive to firms to break the coordination while high frequency of orders helps firm to bring their behaviour into line because it will be easier for firms to detect changes in each others behaviour..

- **Cross-shareholding** – if a firm has equity participation in a competitor, or if they operate a joint venture, not only may the scope for collusion be enhanced as already seen for the first condition, but it may be more costly for a firm to deviate given that the financial performance of the firm is affected by the profits of the competitor in which the firm has participation.

- **Multi-market contacts and symmetry** – If the coordinating firms compete with each other in various markets, the potential to 'punish' deviation might increase. The more symmetric the firms are with regard to market shares, cost structures etc., the more symmetric their incentives and their mutual sanction potential are. Also, the threat of punishment may be credible in certain situations; for instance, where firms not only supply to the same customers but also deal with each other by way of sub-contracts, the

termination of such contracts might present a threat to ‘punish’ deviation from the coordinated behaviour.

Third condition: weak competitive constraints

D.13. Overall, the conditions of competition in the market need to be conducive to coordination to sustain such behaviour. Typically, this means that the market should be sufficiently stable and with such limited competition (both actual and potential) that the coordination is not likely to be disrupted. For example, a strong fringe of smaller competitors with capacity to take sales from the coordinating firms (or perhaps a single maverick firm) or a strong buyer (with buyer power) might be enough to render coordination impossible or unsustainable. Low barriers to entry may also render coordination unsustainable.

<u>Evidence</u>

D.14. In order to determine whether coordinated behaviour in a given market would be sustainable, the following information is likely to be relevant:

- Market shares of the participants. Is there a fringe of smaller competitors with sufficient spare capacity or a possible maverick competitor (not part of the merger)?

- Details of new entry, including evidence of past entry and likely ease of entry in the future. Could new entrants upset any coordination aimed at reducing overall capacity in the market?

- Details of buyers. Are there any powerful buyers? By concentrating its orders a powerful buyer might be able to break coordinated behaviour.[22]

D.15. It should be remembered that the analysis must not stop once the competition authority has concluded that a market has conditions that may facilitate coordination.

[22] However, there are instances where coordination may be sustainable even in the presence of large buyers: for example, if the coordinating firms – in case of output coordination - are able to subcontract their orders out to each other in order to maintain the stability of coordination.

This in itself does not tell us that a merger will make coordination easier or more likely. A focus on the track record of each competitor in the market may help to determine what dynamic they bring to the market. The merger might be 'swallowing up' a maverick firm, making coordination more stable or durable, or it could even be creating a lower-cost firm whose incentive is to deviate from – and thereby frustrate – coordination. Perhaps third parties are the most important actors in the market and the merger itself makes no real difference.

D.16. Demonstrating an increased probability of coordination as result of a merger may be a difficult task. If pre-merger conditions appear to facilitate coordination, then the effect of the merger may be to make coordination more likely, more effective and more durable. It is much less likely that a merger creates conditions for coordination that did not previously exist. Investigation of coordinated effects, like that of unilateral effects, should also focus on the specific effect of the merger itself rather than only the state of pre-merger competition.

BOX 5 – Coordinated Effects: Case Studies

DS Smith / Linpac (2004)

DS Smith, a producer of packaging, acquired Linpac, also a producer of packaging. As a result of the merger the number of major corrugated cardboard sheet (sheet) suppliers in the UK was reduced from six to five. The market was relatively concentrated, with the five main suppliers having a share of approximately 75% of the market between them. The merger was referred to the UK Competition Commission amid concerns that coordinated effects might result in a substantial lessening of competition as a consequence of the merger.

In assessing the likelihood of coordinated effects in the sheet market the Commission found that competitors would have been able effectively to monitor one another's competitive behaviour as a result notably of highly transparent price announcements. The Commission also found that it would be costly for firms to deviate from coordinated behaviour since other suppliers would be able to retaliate by increasing output and adjust their prices in response to any such deviation.

However, the Commission also noted that coordinated effects were only sustainable where competitive constraints from outside the group of major suppliers were weak. Following a detailed investigation, the Commission found that, despite some barriers to entry and expansion, the incentives and ability of current and future competitors to jeopardise the results of any coordination appeared to be significant. The existence of a number of fringe players and potential entrants into the market would undermine any coordination between the five main undertakings present on the market. The merger was therefore allowed to proceed.

South African Banks / Compcorp (2004)

The four major South African banks - ABSA, First Rand, Nedcor and Standard Bank - sought approval for the establishment of an industry-wide switch for the electronic submission of mortgage bond applications through a company call Comcorp. All mortgage applications by the banks would have to be submitted via a single channel, being the switch. The banks also intended to acquire the BondTrak software used by mortgage originators in managing their processes.

The Commission found that the joint control of the four banks over Comcorp would create a platform for co-ordinated conduct likely to lessen inter-bank competition as all four banks are involved in the broad financial services market, including the market for the provision of home loan financing.

The Commission found that through the formation of Compcorp, the banks would be able to jointly fix a transaction fee, which would require each originator to pay for the electronic submission of mortgage applications. The Commission found that this would have the effect of limiting the multiple submissions of mortgage applications to competing banks, wherein the mortgage originators play one bank off against the other in an effort to obtain the best interest rate for the consumer. A restriction on this process would severely harm the consumer in that inter-bank competition would diminish. The Commission was further of the view that the banks would be able to use Compcorp as a conduit to jointly fix prices and trading conditions and that this in turn would prevent innovation and limit competition amongst originators and vendors. Anti-competitive vertical effects arising from the transaction were also raised. The Commission therefore found that the merger would substantially prevent and lessen competition in the home loan application, home loan software and the home loan finance markets.

While the parties did put forward efficiencies, the Commission found that these could be attained outside the merger and that these efficiencies did not outweigh the anticompetitive effects arising from the merger. In addition, there were no public interest considerations that could justify approving this otherwise anticompetitive merger. The merger was prohibited.

Rethmann/Tönsmeier/GfA Köthen (2004)

In November 2004, the Bundeskartellamt prohibited the proposed joint participation by Rethmann and Tönsmeier in the Gesellschaft für Abfallwirtschaft Köthen (GfA Köthen). GfA Köthen was a company active in various disposal markets in Saxony-Anhalt, especially in the market for the collection and transport of residual waste, waste paper and other types of waste. Rethmann was the second-largest German waste disposal company and Tönsmeier a well-established medium-sized enterprise. According to the Bundeskartellamt's findings the notified merger would have strengthened a dominant oligopoly in the markets for the collection and transport of residual waste and waste paper in a geographic area of approx. 100 km surrounding the District of Köthen. In this relevant geographic market four companies – Rethmann, RWE Umwelt, Sita and Alba - together held a good 75 per cent of the market shares for the collection and transport of residual waste and 74 per cent for waste paper. Both the market and company-related structural factors as well as the actual competitive behaviour observed showed that these four companies constituted a dominant oligopoly which caused coordinated effects even prior to the notified merger. The markets were very transparent due to its nature of public bidding markets. There were significant interlocks between the four companies through joint ventures and subcontractor relationships. The disposal services were highly standardized and there was little innovation potential. The interlocks and the regular public biddings on new contracts constituted a strong sanction mechanism against any deviation from the coordinated behaviour. The Bundeskartellamt also reviewed in detail past bidding behaviour of the oligopolists. The analysis showed that no significant competition had occurred in the past years. Also, the bidding behaviour did not result in any significant customer switches.

CHAPTER 4: WORKSHEET E – MARKET ENTRY AND EXPANSION

Introduction

E.1. A merger that materially increases market concentration would not give rise to sustained anti-competitive effects if new firms would enter the market (or existing firms expand) and deter the merging parties (and others) from exploiting their position in the market. Entry into the market by new firms may prevent or counteract any attempt by the merging parties or their competitors to profit from the potential reduction in competition brought about by the merger.[23]

E.2. In this Worksheet, we consider entry by new firms or expansion by existing firms as a result of the merger, i.e., entry or expansion involving significant sunk costs of entry and occurring within the foreseeable future (often called 'committed entry'). As noted in paragraph A.20, entry by way of supply-side substitutability can be seen as a special case of entry, since it must occur quickly and without any significant sunk investment (often referred to as 'uncommitted entry').

E.3. Furthermore, the market entry analysed in this Worksheet refers to entry that would occur as a result of the new market conditions generated by the merger if approved. In other words, where there is evidence of entry from new firms outside the relevant market (or exit from existing firms in the relevant market) or committed expansion plans by existing competitors that would occur absent the merger, this evidence should be reflected in the counterfactual (see chapter 2). The competitive situation without the merger would be altered because of this entry, exit or expansion.

Economic rationale

E.4. It is common to think of the constraints on competitive conduct within a market arising only from firms already active in that market. This is the competitive constraint

[23] As noted in Worksheet A on market definition, it is also possible to assess shorter term supply-side responses in the context of market definition.

assessed by concentration measures of the sort described in Worksheet B. However, it is possible that the constraints posed by firms outside the market might change in the near future as a result of the merger. When this is sufficiently likely to happen, the reviewing authority needs to take it into account in assessing the competitive effects of the merger.[24] The sorts of changes that a competition authority might need to take into account include:

- An increase in the number of competitors active in the market because a new competitor enters the market (new entry);[25]

- An existing competitor, already in the market, becomes a much more important competitor than before, e.g., because it builds new production capacity (expansion); or

- An existing competitor repositions an existing product (product repositioning).

E.5. New entry or expansion by competitors sometimes can effectively discipline the behaviour of the current market participants. Although competition authorities may adopt different approaches to determine the likelihood of new entry, there is broad agreement that a reviewing authority should only conclude that entry/expansion is a real competitive constraint on the merging parties where three conditions are met:

- The entry or expansion is likely to occur;

- The anticipated entry or expansion is of a nature, scale and scope to prevent or reverse the anticompetitive effects the merger otherwise would have; and

- The entry or expansion is likely to occur within a reasonable period of time (i.e., it should be timely).

E.6. This section describes how each of the above three conditions (often shortened to the likelihood, sufficiency and timeliness of entry) can be investigated and assessed.

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[24] This is of course one of the reasons why caution is needed with concentration measures of the sort discussed in worksheet B. In brief, they provide only a 'snap-shot' of a market at a point in time, and so may not reflect the sorts of changes in competitive structure that are discussed in this worksheet.
[25] As explained in paragraph A.26, in some jurisdictions imports are analysed in the context of new entry.

Each is considered in turn. In this discussion, the term 'entry' is used to refer to possible entry, expansion and repositioning, as the investigative considerations are similar for all three.

Likelihood of entry

E.7. Entry is likely to occur if it would be profitable. Thus, when reviewing a merger, a competition authority faces a number of critical issues:

- Would the merger itself trigger entry into the market? Indeed this might happen because of the effect of the merger on the profitability of entry.

- Would the proposed merger itself create a significant opportunity for entry?

To assess the probability of entry, it is useful to consider barriers to entry, as well as any history of entry or exit.

E.8. Are there any **barriers to entry** to the market (or markets) that might make entry unlikely? A barrier to entry can be described as an advantage enjoyed by an incumbent firm over potential entrants which prevent new firms from entering the market.[26] The mere need to invest in order to enter is not of itself a barrier to entry. Rather, when assessing barriers to entry it is important to look at the expected profitability of entry in order to see whether they may be considered low or high. It is possible to categorise entry barriers in various ways. One such categorisation is as follows:

- **Absolute barriers**[27], such as where government regulations, e.g., licensing and intellectual property rights, limit the market participation or impose substantial regulatory approval costs (e.g., environmental restrictions). Regulations can also make it more difficult for consumers to switch supplier.

- **Structural barriers**, arising from basic market conditions such as cost, demand and technology. Examples include situations where the existing incumbents

[26] See also OECD Roundtable on 'Barriers to Entry', 2005.
[27] Some jurisdictions describe these as legal/regulatory advantages.

control assets necessary for the production or supply of the relevant products (e.g. natural resources); where existing firms have access to a superior technology; where networks effects are strong; and where economies of scale and sunk costs are important. A merger would not attract entry if the anticipated reward were not commensurate with the risk from being unable to recover **sunk costs** (e.g., expenditures not recoverable upon exit, associated with acquiring or constructing specialized facilities, recruiting, training, product development and other requirements for successful entry).

- **Economies of scale** can limit the incentive to enter.[28] Even when investment costs are not sunk, scale economies tend to deter entry in the sense that only large-scale entry would be profitable. In this connection, information on the minimum viable scale needed to enter the market can provide an indication of the scale that a new entrant would need to make in order to compete profitably.

- **Strategic advantages**, where the existing established position of the incumbent gives it an advantage over new entrants (also known as 'first mover advantage') or where the incumbent responds to new entry with aggressive tactics such as by significantly lowering prices or by investing in excess capacity to deter entry. Two important aspects of this are sunk costs (e.g. expenditure in advertising and R&D) and reputation. Where demonstrated reliability is very important to the buyer, this can favour current suppliers. Other factors might include product differentiation, tying and bundling, and exclusive dealer agreements.

E.9. By comparing the costs of entry with the expected sales income (net of the operating costs) and how long it will take to recover incurred costs, it is possible to gauge whether potential entrants will consider that entry is profitable. It is also useful to ask customers whether they would be willing to switch to a new supplier as this will impact on how effectively new entry can be expected to constrain the merging parties' behaviour. The merging parties may be able to provide data on customer gains and losses to determine the level of customer switching in the market.

[28] Economies of scale enjoyed by incumbent firms arise where average costs fall as the level of output rises. Typically, this occurs when there are high fixed costs for the initial investment – say, a sizeable plant – which has relatively low running costs (i.e., variable or marginal costs). See also the OECD Glossary of Industrial Organization Economics and Competition Law (1993).

E.10. Is there a **history of entry** to (and exit from) this market? If it is possible to establish a record of firms entering and exiting the market, that can be sound evidence that entry into the market is possible and may continue.

- What have been the experiences of firms that have in recent years entered or exited from the market? If there is no evidence of any new firm having entered in recent years, a reviewing authority might be more cautious in relying on evidence about possible new entry. There might be barriers of a less obvious nature. Evidence from similar markets in other countries may be useful.

- As a complement, information about past and expected market growth may also be an indicator as to the likelihood of entry. Generally, in a market that has experienced recent growth which is expected to continue, new entry is more likely. In contrast, a shrinking market where suppliers face increasingly reduced margins can be expected to attract less new entry.

- A note of caution: a lack of entry does not necessarily mean that entry barriers are high. In fact, the cost to enter the market as such may be low but the market concerned is so competitive that entry is not attractive. Similarly, the mere need to invest in order to enter is not of itself a barrier to entry. On the other hand, the fact that past entry has occurred does not automatically mean entry barriers are low: entry may have been on a small scale or into a specific market niche.

E.11. What might be highly relevant is evidence of firms currently contemplating entry but only if circumstances change. In this case, the merger may or may not be the sort of change in circumstances necessary to cause firms to enter.

E.12. Another factor to consider is whether there are large buyers that have in the past or might in the future 'sponsor' new entry, as this would also likely act as a constraint. Major oil companies, for example, have some times sponsored entry of supply companies.

E.13. Furthermore, an authority should look at the duration, termination and renewal provisions of clauses in existing sale contracts. If, for example, buyers are tied into five year contracts, it could take a long time for an entrant to capture market share. This may reduce the profitability and consequently the likelihood of entry.

E.14. Real world examples often are the best guide to the pitfalls and costs associated with entry and exit from the market. By enquiring about the experiences of recent market participants, it may be possible to confirm any assumptions that are made about the likelihood of entry. This can also be important because the concept of 'likelihood of entry' is susceptible to arguments concerning 'hypothetical entry'. Just because entry might hypothetically occur, it does not mean that it is likely. Real world examples can help avoid this difficulty.

Sufficiency of entry

E.15. This condition generally requires that entry by new firms successfully prevents incumbents from raising price post merger or makes them promptly reverse price increases, by capturing a sufficient amount of their sales. Even profitable entry therefore may not be sufficient if it fails to win enough business from existing firms which could still extract increased profits through price rises. Small scale entry into a niche market might not be of sufficient scale to act as a constraint, although each case should be considered on its own facts. When analysing the sufficiency of new entry, therefore, the following questions should be considered:

- Is the new entry likely to be so small or isolated that incumbents can nevertheless still raise prices to a significant section of the market? It may be that the new entry is of insufficient scope to compete effectively with the merging parties.

- In a merger between sellers of differentiated products would the new entrant provide a product that competes directly with those of the merging parties such that a sufficient number of customers would switch to the entrant product in response to an attempt by the merging firms to raise prices by switching away?

- Is the new entry able to counteract the specific anticompetitive concern brought about by the merger?

- Is the new entry able to counteract any localised anticompetitive effects? In some cases, the anticompetitive effect(s) of the merger might only occur in a

distinct location and any new entrants would have to target their business in the adversely affected area in order to prevent such effects.

- Some analysis of the efficacy of adding capacity might be considered. For example, consumer inertia or cost factors may make it very difficult to increase output quickly.

Timeliness of entry

E.15. Profitable entry will only be considered to act as a competitive constraint if it is sufficiently timely and sustainable. Many jurisdictions consider that entry must occur within two years to have a disciplining effect.

E.16. As stated in paragraph E.13, duration, termination and renewal provisions of clauses in existing sale contracts are also important factors to consider in the timeliness of entry.

Expansion

E.17. The ability of existing market participants to expand their capacity quickly, or utilise existing spare capacity, in response to a price rise by the merging parties can act as a competitive constraint. Many of the factors that are considered in the assessment of new entry are relevant to the analysis of expansion. Rival firms should be asked whether they have expansion plans, whether they face any barriers to expansion, and the level of costs to be incurred versus increased revenues to be gained.

BOX 6 – Barriers to Entry and Expansion: Case Studies

Mitsui Chemical / Sumitomo Chemical (2002)

The Fair Trade Commission of Japan (JFTC) cleared the proposed merger of Mitsui Chemical and Sumitomo Chemical. While remedies were required in certain markets, JFTC concluded that there would not be any antitrust concern on the ethylene propylene diene methylene (EPDM) market, while the merged firm would have market share of 50% of the relevant market post merger. JFTC's reasons included possible new entry and expansion of the existing competitors, particularly imports from overseas. The factors JFTC emphasized with regard to entry/expansion include, expanded production capacity of overseas EPDM manufacturers, easy and low cost transportation, and likelihood of customer reactions to switch suppliers and the trend of change of customers preference to the grades of product coming from overseas.

Genus plc / Supersires Ltd (2004)

This merger would bring together the two largest suppliers of professional artificial insemination services in Great Britain with a combined share of supply of 80-90%. However, the merger was not expected substantially to lessen competition in the market in part because barriers to entry were considered to be low. Some third parties argued that the presence of Genus was of itself the main barrier to entry as its operations were of a sufficient size to enable it to offer prices below those of any new entrant. The UK Office of Fair Trading (OFT), however, found a history of entry into the market with new entrants winning business from Genus when it was the monopoly supplier, as well as entry in the two years prior to the merger, and evidence of future planned entry.

Grafton / Heiton (2005)

In the acquisition of Heiton Group plc by Grafton Group plc, the parties overlapped in two main distinct relevant markets: supply of 'do-it-yourself' ('DIY') products and supply of building materials. The Irish Competition Authority found substantial evidence of entry in the two markets in the past, both from chain and independent stores. It was also very important to consider the expansion plans by the existing suppliers, although these plans were made independently of the proposed merger. In an industry that has been growing very fast in the recent years, the Authority observed that market characteristics pointed to low barriers to entry: low switching costs for customers and low set-up costs. The competitors who declared their intentions to expand were considered by the Authority well-placed to enter not only those geographic markets where the merged entity would be a monopolist, but also markets where it is present in general.

CHAPTER 4: WORKSHEET F - EFFICIENCIES

Introduction

F.1. A merger may deliver efficiencies. It could increase productive efficiency, and hence, benefits could be passed on to consumers, for example, in lower prices or increased innovation. In this worksheet, we discuss efficiencies claimed for horizontal mergers. Efficiency gains in the context of non-horizontal mergers are discussed in Worksheet H.

F.2. Efficiency gains are often claimed for horizontal mergers. However, efficiencies are not frequently supported with convincing evidence and consequently competition authorities generally tend to be sceptical about such claims. So far there are very few cases where a horizontal merger enforcement decision has turned explicitly on the efficiency-enhancing attributes of the transaction. Of course, if scepticism is carried too far there is a risk that pro-competitive (or pro-consumer) mergers will be stopped. On the other hand, if expected efficiency gains do not materialize in cases where there are competition concerns, consumers will be harmed.

F.3. The quantification of merger-specific efficiencies is often the most speculative single element of merger review. Efficiencies are most likely to make a difference in merger analysis when the likely adverse competitive effects, absent the efficiencies, are small and when the degree of post-market power is not too high.

Economic rationale

F.4. Mergers can generate significant efficiencies by permitting a better utilisation of existing assets, enabling the combined firm to achieve lower costs than either firm could have achieved alone. Efficiencies may increase rivalry in the market so that no adverse competitive effects would result from a merger. For example, this could happen where two of the smaller firms in a market gain such efficiencies through merger that they can exert greater competitive pressure on larger competitors.

F.5. Efficiencies include cost savings, more intensive use of existing capacity, economies of scale or scope, or demand-side efficiencies such as increased network size or product quality. They might also encompass pro-competitive changes in the merged entity's incentives, for example by capturing complementarities in R&D activity, which in turn might increase incentives to invest in product development in innovation markets.

F.6. In a unilateral effects context (see Worksheet C), marginal cost reductions may offset the merged firm's incentive to elevate price. While efficiencies are typically more relevant for the assessment of unilateral effects, there are some situations where they might also play a role in the assessment of coordinated effects (see Worksheet D). In this context marginal cost reductions may make coordination less likely or effective by enhancing the incentive of a maverick to lower price or by engendering disharmony among competitors through increasing cost asymmetry.

Which efficiencies should be considered in merger review

F.7. Efficiencies tend to have an impact on short-term pricing behaviour incentives (in terms of lower prices for customers) if they lower the marginal or variable costs and there is sufficient competitive pressure remaining. Conversely, savings in fixed costs generally will not often impact short-term pricing behaviour incentives, so that fixed costs savings will normally not be passed on to consumers. It is often challenging to make a clear distinction between variable and fixed cost savings as this distinction will depend on the time horizon used. Also, fixed costs may be important in short-run price formation where, for example, competition takes place via auctions and bids that reflect both the fixed and variable costs of the tendered service.

F.8. In jurisdictions where consumer welfare is the goal of merger review, only those efficiencies that are likely to be passed on to consumers (such as reductions in variable costs passed on in terms of lower prices) are taken into account in the assessment. In jurisdictions where a total economic welfare standard is adopted, other efficiencies are considered in addition to those that benefit consumers, such as efficiencies reaped by producers in the form of profit gains (e.g., reductions in fixed costs). But most jurisdictions do not take account of increases in producer

efficiencies. This is largely for policy reasons as countries have mostly decided that the core purpose of a merger control regime is to protect consumers (or customers) against a loss of consumer welfare.

How to incorporate efficiencies in merger review

F.9. Another fundamental question is how efficiencies are incorporated into the assessment of individual cases. Efficiency evidence may be taken into account as part of the competitive effects analysis by showing that the economic incentives to compete of the merged firm may be increased so that the merger would not harm consumer welfare (e.g., will result in lower prices, improved quality or new products). This 'integrated' approach looks at the net effect of a merger on prices (and other indicia of competitive performance) and is the approach favoured by most jurisdictions.

F.10. Alternatively, in a few jurisdictions efficiency evidence is used as a formal, legal defence *after* a merger is found to be anticompetitive. This approach is characterized by two elements. First, the 'efficiency defence' is a legal provision allowing merging parties to present a justification to the adverse effects on competition found by the enforcement authority at the end of the competition analysis. This justification may be permitted on the grounds that claimed efficiency benefits will outweigh the competition harm. Second, in the jurisdictions that apply this legal approach, efficiency benefits are sometimes identified and assessed under other welfare standards rather than consumer welfare (e.g., total economic welfare).[29]

Assessment

F.11. Merger-specific efficiency gains are difficult to assess both for merging parties and for competition authorities. The merging parties typically have the best knowledge about the likely efficiencies that a merger may create for them. However, this self-assessment might be too optimistic and has proven wrong for many mergers. Also, merging parties have a clear incentive to overstate the likely efficiencies when

[29] It is worth noting that the term 'efficiency defence' is often misused to include the integration of post-merger efficiencies into the competitive effects analysis. As such, it is not really a legal 'defence' to an otherwise anticompetitive merger.

presenting them to the competition authority or courts. Claimed efficiency gains therefore have to satisfy a high evidentiary standard which the merging parties have to meet.

F.12. The **evidence** of the claimed efficiencies is normally solely in the possession of the merging parties. Such evidence may include internal documents that were used by the management to decide on the merger, statements from the management to the owners and financial markets about the expected efficiencies, historical examples of efficiencies and pre-merger external experts' studies on the type and size of efficiency gains. Where reasonably possible, efficiencies and resulting benefits should be quantified. In general, jurisdictions require that only those efficiencies which have a high probability of realization within a reasonably short period post-merger, will be taken into account. Assessing efficiencies is very difficult in practice.

F.13. In most jurisdictions the second requirement is that some share of the benefits expected to be realised from post merger efficiencies is likely to be **passed on to consumers** (or customers), usually in the form of lower prices or increased output, if they are to be taken into account in the merger review.

F.14. The third requirement in most jurisdictions is that the efficiency gains are **merger-specific**, or, in other words, not likely to be produced or available absent the merger. The verification of this requirement entails the specification and possible quantification of alternative scenarios, i.e., different forms of non-merger cooperation between the companies such as joint ventures. However, only practical business alternatives likely to be pursued absent the merger should be considered.

BOX 7 – Efficiencies: Case studies

Office Depot / Guilbert (2003) (*)

In the clearance of the Office Depot/Guilbert merger, the European Commission noted that "Office Depot has identified a number of cost-reducing synergies that it expects will be generated by the proposed transaction. Office Depot submits that they are merger-specific, substantial, timely and verifiable, and they will benefit consumers of office supplies in both price and non-price terms. As such, they are put forward as pro-competitive efficiencies generated by the proposed transaction. According to Office Depot, many of these projected savings can be realised without significant investments and will reduce the combined firm's variable costs, for example through savings in purchasing costs, packaging costs and freight costs." But since the European Commission did not find that the merger would reduce competition, it was not necessary to assess the claims by the parties.

(*)The EC has not yet had cases where efficiencies were relevant for clearing a merger.

DirecTV / Dish Network (2002)

DirecTV Enterprises Inc. was owned by Hughes Electronics Corp. DirecTV operated one of two direct satellite broadcast (DBS) services in the United States. EchoStar Communications Corp., which operated the other DBS service, proposed to acquire Hughes. Economists working for the parties and economists in the US Department of Justice both engaged in extensive modelling of the competition between the two DBS services and with cable television operators with which the DBS services competed in providing "multi-channel video programming distribution." The Department concluded that this modelling supported the conclusion that the acquisition would substantially harm consumers and filed suit to prevent its consummation. The Department's modelling indicated that efficiencies claimed by the parties would be insufficient to prevent the merger from creating significant anticompetitive effects.

Superior Propane / ICG (2000)

This case is an example of how a formal 'efficiency defence' - as described in paragraph F.10 – is applied. In the Superior Propane case, the Canadian Competition Tribunal allowed a merger of propane distribution companies that resulted in a monopoly in many local markets and which was found to lead to a significant and sustained increase in prices. The Competition Tribunal applied the Canadian efficiencies defence and found that, regardless of the anticompetitive price increase resulting from the merger, the efficiencies were so substantial that these efficiencies outweighed and offset the merger's likely anticompetitive effects. On appeal, the Canadian Federal Court of Appeal overturned the Competition Tribunal decision because the Tribunal did not assess the welfare implications of the 'wealth transfer' from consumers to producers which would result from higher prices. On redetermination, the Competition Tribunal affirmed its earlier decision, as it found that the efficiency gains were significantly higher than the sum of merger's anticompetitive effects and the socially adverse portion of the wealth transfer. The Canadian Federal Court of Appeal affirmed the Competition Tribunal's redetermination decision, and the merger was allowed to proceed.

CHAPTER 4: WORKSHEET G – FAILING FIRM

Introduction

G.1. Where one of the parties to a merger is genuinely failing, pre-merger conditions of competition might not prevail even if the merger was prohibited. In these circumstances, the counterfactual would need to reflect the expected failure of one of the parties and any resulting loss of rivalry. But, the 'failing firm defence' may be claimed by merger parties even where a firm is not truly failing. Hence, claims that a firm is failing need to satisfy a high evidentiary standard.[30]

Economic rationale

G.2. A merger is not likely to create or enhance market power or to facilitate its exercise, if imminent failure of one of the merging firms would cause the assets of that firm to exit the relevant market. In such circumstances, the competitive structure after the merger may be no worse than the competitive structure had the merger been blocked. It should be noted that the counterfactual (see chapter 2) – with which the post-merger situation should be compared - is not the pre-merger situation, but the situation occurring after the failing firm would have exited the industry. The treatment should be the same in the highly unusual case where the failing firm is actually the acquiring firm. Also, it is accepted in many jurisdictions that a similar argument can be made for failing 'divisions' as for failing firms.

G.3. Normally, economically viable assets are unlikely to exit the relevant market, while the acquisition of assets that are not economically viable would not be expected to remain in the market. The acquisition of a failing firm's assets, however, can cause its assets to become economically viable, and thus remain in the market, if the acquisition generates significant efficiencies.

[30] See also OECD Roundtable on 'Failing Firm Defence', 1996.

Conditions

G.4. In order to satisfy the failing firm defence against a finding that a merger would be anti-competitive, conditions along the following lines should be met:

- First, in order to rely on a failing firm defence, it must be clear that the firm is in such a **deteriorated financial situation** that without the merger it and its assets would exit the market and this would occur in the near future.

- Second, there must be **no serious prospect of re-organising the business**. This could include re-organising the underlying business or the financial structure. Identifying the appropriate counterfactual in these types of situations is often very difficult. Even companies in severe financial difficulties often survive and recover and, as explained, the test is whether in the absence of a merger, the assets of the failing firm would inevitably exit the market.

- Third, there should be **no less anti-competitive alternative to the merger**. Even if the company is failing and a sale of the company or its relevant assets is inevitable, the failing firm argument only applies where there are no competitively preferable acquirers of the assets. If an alternative firm is willing to acquire the assets, then it is unlikely that the assets would exit the relevant market without the proposed acquisition. An acquisition by such an alternative firm may be less anticompetitive than the proposed merger. It may also be better for competition that the firm fails and the remaining players compete for its share of the market and assets than that the failing firm's share and assets are transferred wholesale to a single purchaser.

G.5. In most cases, the acquisition of the failing firm can prevent its assets from exiting the market only if there are merger-specific efficiencies. Indeed, it is part of the competitive process that firms will fail, either because of internal problems or due to external changes in market demand and resultant excess capacity. In such circumstances mergers can be an effective means of putting resources to alternative uses and/or improving efficiency through rationalisation.

G.6. Merger review should not exclude the possibility that the acquisition of a failing firm, which initially raises competition concerns, can result in customer benefits. Indeed,

the competitive outcome with the merger may be better than the competitive outcome without the merger (the counterfactual).

G.7. In most instances, the acquisition of a failing firm does not even raise competition issues because there are sufficient competitive constraints on the merged entity remaining in the market, even if the assets of the failing firm would still exit the market.

Evidence

G.8. Information to establish a failing firm defence may include the following evidence:

<u>Deteriorated financial situation</u>

- In most cases, the assistance of financial and accounting expertise will be required to detail the information necessary for a proper examination of the condition of the failing firm and to assess the merits of the claim.

- Historic financial information on the business that it is claimed is ‘failing’ should be sought, ideally profit and loss and cash flow information. This information includes the latest balance sheet and analysis of the most recent statutory accounts.

- Prospective financial information should also be requested including forecast information for the current year. More weight is likely to be given to forecasts produced either in advance of the transaction or for another purpose and not produced solely for the competition authority.

- In considering the financial situation of a division, care must be taken to ensure that the correct revenues and costs are considered. The division must have a negative cash flow on an operating basis.

- To establish that trading conditions and hence financial performance are unlikely to improve, it would be useful to consider whether the business is in an industry

where cyclical losses are normal or whether the failure of the business may be the result of technological change.

Unable to re-organise successfully

- Evidence proving that the business is irredeemably failing might come from board papers or other strategy documents produced by the company considering various ways to improve the situation.

- It will be necessary to consider whether all re-financing options have been explored and exhausted.

No less anti-competitive alternative to the merger

- Evidence should be sought to establish that the failing firm unsuccessfully sought out less anticompetitive alternatives to the proposed transaction. That is, it must be shown that there are no other credible bidders in the market, and that all possible options have been explored. If there was an auction or similar process in which all logical potential acquirers were given an opportunity to participate, it may be possible to demonstrate that the vendor explored all options. If such process was not carried out, the competition authority may undertake an assessment of whether such firms are interested in acquiring the firm or its relevant assets.

BOX 8 - Failing Firm: Case studies

Meade / Celestron (1990)

Meade Instruments Corporation (Meade) manufactured Schmidt-Cassegrain telescopes (SCTs). Meade's owner, Harbour Group Investments, proposed to merge Meade with Celestron International, also a SCT manufacturer, through a 50-50 joint venture with Diethelm Holding, Celestron's owner. Meade claimed, absent the merger, its business would fail.
The Federal Trade Commission (FTC) challenged the merger, and requested a US District Court to enjoin the parties from consummating it. The decisive issue for the Court was whether the merging parties met their burden of proof to sustain the 'failing firm' defense.
The Court stated that Habour Group failed to meet its burden to demonstrate that the proposed merger with Celestron was the only available alternative for Meade. The Court noted in particular that the merger agreement had already been made before any serious efforts to find alternative purchasers had begun. Discussions between the parties leading to the merger took about five months, but only one week before the merger agreement was signed did Harbour Group first contact a brokerage firm to search for alternative purchasers. Evidence presented to the Court revealed that the broker's efforts were minimal: they were not conducted by the division with appropriate expertise, very brief offer materials were prepared, and few telephone inquiries were made with little follow up by the brokers responsible for the search. By contrast, the FTC presented evidence (i) of three other potential purchasers and (ii) that Celestron was concerned that if it did not acquire Meade, another company - in particular, a potential competitor - might acquire Meade. The Court stated that: "The FTC is not obligated to prove that these companies are immediately ready and willing to purchase Meade. Instead, it is Habour Group's burden to show that the Meade-Celestron joint venture is the 'only' available alternative."

BASF / Eurodiol / Pantochim (2001)

BASF, a producer of chemicals proposed to acquire Eurodiol and Pantochim, both also chemical producers and subsidiaries of the SISAS group.
The European Commission accepted the failing firm argument put forward, finding that the adverse effect on competition through the merger was at least no worse than the position in the absence of the merger. Against three criteria, the Commission considered the following as relevant when assessing whether the anti-competitive effects of the merger was the least competitive outcome.
1) Whether the acquired undertakings would withdraw from the market in the near future if not acquired by another undertaking. The Commission considered imminent prospect of bankruptcy of both Eurodiol and Pantochim (Prior to the acquisition agreement both Eurodiol and Pantochim were placed under the pre-bankruptcy regime by the Court of Charleroi, Belgium).
2) Whether there is a no less anti-competitive alternative purchaser. BASF claimed there was not alternative purchaser and no alternative purchasers were identified by the administrators. The Commission, through its own inquiries, was unable to find a alternative purchaser. The time framework set by the Belgian pre-bankruptcy regime was also considered.
3) Whether the assets to be acquired would inevitably exit from the market if not taken over by another undertaking. The Commission considered features of the bankruptcy proceedings (namely obligation to take over the entire work force within six months of bankruptcy would deter immediate restart of the plant); costs incurred with restarting the plant following a six-month delay, in comparison with an immediate acquisition; existing loss of qualified work-force and further loss of qualified work-force following bankruptcy will deter investors; plants of the two undertakings need to operate as a whole preventing purchase of isolated assets
When considering the competitive structure resulting from the merger, and comparing this with the situation absent the merger, the Commission took into account: the capacity constraints in the market and impossibility of compensating for them for a considerable period of time;
capacity expansion plans of the acquirer and another competitor; the benefits to supply of preventing a sharp shortfall in capacity; demand inelasticity and constraints on the acquirer to raise prices post-merger.

On this basis, the Commission concluded that the deterioration in the competitive structure through the merger would be less significant than in the absence of the merger.

VNU Entertainment Media UK Limited / Book Data Limited (2003)

This merger concerned the acquisition by VNU of Book Data both of whom supplied databases of UK-published books and certain other services for the book industry. VNU argued that, if it had not acquired Book Data, it was virtually certain that the US bibliographic agency, Bowker, the under bidder in the auction for Book Data, would have done so. It submitted that VNU would then have left the UK commercial bibliographic data market because it would have no prospect of trading profitably. The UK Competition Commission (CC) noted the following:

- the historic financial performance of VNU's bibliographic business;
- the amount that VNU would have saved had its bibliographic business not operated in the last year and the amount that it could be expected to save in the next year;
- there was no indication that a significant recovery in financial performance could be expected;
- there was no reason to think that a third party would have been interested in buying VNU's bibliographic business in order to compete with Book Data.

In considering the financial position of the VNU bibliographic business, it was recognised that it was not the contribution to profits of VNU's bibliographic data business as reported in its management accounts that was relevant. If VNU had closed the bibliographic business, there would have been some running costs, which had been allocated to the bibliographic business that it would still have had to incur in order to carry on its other activities. What was relevant were the costs that could be avoided on closure.

The CC concluded that it was likely that, in the absence of the merger, Book Data would have been acquired by Bowker and would have become the only supplier of commercial bibliographic data in the UK, following VNU's exit. This outcome was considered to be similar to the post-merger situation, with a single supplier of commercial bibliographic data facing no direct competition.

It was concluded that the merger did not operate, and was not expected to operate against the public interest.

CHAPTER 4: WORKSHEET H – NON-HORIZONTAL MERGERS

There are two broad types of non-horizontal mergers: vertical mergers and conglomerate mergers.

Vertical Mergers

H.1. As explained in chapter 3, vertical mergers are those between firms that operate at different but complementary levels in the chain of production and/or distribution of the same final product. Vertical mergers can potentially generate substantial efficiencies and should rarely be a cause for concern. In some cases, however, vertical mergers may give rise to competition issues. The vertically integrated merged entity may be able to constrain the ability of rivals to compete by excluding them from a market or by raising their costs; when such actions harm consumer welfare, they are anticompetitive. Furthermore, as a result of the vertical merger, the potential for price or output coordination may increase.

Economic rationale

H.2. Because a vertical merger is between parties that do not currently compete in the same relevant market, it does not have the direct anticompetitive effect of reducing the number of horizontal competitors. Moreover, vertical mergers have significant potential to create efficiencies and are rarely anti-competitive. Transactions costs associated with performing complementary activities may be best minimized by internalizing those activities as technology changes over time. The realization of the efficiencies from vertical mergers may be expected over time to reduce production and internal organizational costs and thereby allow more and higher quality products to be produced at lower cost to society. These benefits may be expected to enhance consumer welfare, which is the goal of competition policy in most jurisdictions.

H.3. In some situations, however, a detailed factual analysis may show that a proposed vertical merger is likely to have an anticompetitive effect in a particular market. If that is the case – and assuming that merger-specific efficiencies will not offset the harm to competition – it is appropriate for an enforcement authority to seek to enjoin the transaction. In deciding whether to challenge a proposed vertical merger, a

competition authority should rely on a detailed, credible, and substantial factual basis supporting the conclusion that the merger will harm competition in a particular market.

H.4. Taking these caveats into account, there are situations under which a vertical merger may prove to have anticompetitive effects by enhancing market power of the merged entity or increasing the potential for price or output coordination.[31] These situations are analysed below and should be carefully assessed. In particular, evidence developed to show that a particular situation applies should lead to enforcement action only when the evidence indicates that the merger would likely lead to a diminution in consumer welfare.

Unilateral anticompetitive effects

H.5. A vertical merger can have anticompetitive effects if it enables the verticallyintegrated merged entity to constrain a rival's ability to compete either by foreclosing it from an upstream or downstream market or by raising its costs in a way that permits the merged entity to exercise market power.[32] The anticompetitive behaviour of the merged entity can increase rivals' costs and eventually this will lead the rivals to raise their prices to consumers, thereby enabling the merged entity responsible for the rivals' cost increase to raise its prices as well.

H.6. For example, in certain limited market conditions, if the merged entity gains control, post-merger, of a critical means of competitive distribution to a downstream market, it might be able to reduce competition from its rivals by refusing to give them access to that means of distribution, or by granting access only at discriminatory prices that favour the merged entity's own business, thus placing rivals at a disadvantage. Or, if a merged entity gains control of a large proportion of a critical input to a downstream process where it also competes, it may be able to dampen competition from its rivals in the downstream market by, for instance, diverting all its production of the input to its own downstream process. If the merged entity thus refuses to supply a product to its downstream rivals, or only sells the input to its rivals at a price that makes them

[31] In addition, a regulated firm may vertically integrate with a non-regulated (upstream or downstream) firm in the hope of subsequently "evading" price regulation by "leveraging" its monopoly from the regulated to the unregulated stage of commerce. (It may also reassign costs between stages of commerce.)

[32] The term 'foreclosure' is used in some jurisdictions to cover both the form of exclusion of rivals from a market and any other anticompetitive conduct such as raising rivals' costs or barriers to entry.

uncompetitive, this might also foreclose competition or allow it to increase prices to consumers.[33]

Increased potential for coordination

H.7. Under certain circumstances, a vertical merger can increase the likelihood of successful price or output coordination by altering incentives and abilities to collude within either the relevant upstream market or the relevant downstream market or both. Such concerns may arise, for example, where vertical integration increases market transparency, cross-ownership or multi-market contacts between firms in one or more key dimensions of competition (e.g., price, output, capacity, or quality) or decreases the likelihood of market entry. For example, if vertical integration affords the merged entity better knowledge of selling prices in another market together with other factors, anticompetitive coordination in that market might be facilitated.

H.8. A vertical merger will not facilitate price or output coordination in any relevant upstream or downstream market implicated by the merger – and, thus, will not be anticompetitive – unless, post-merger incumbents are able to (i) reach terms of coordination on some competitive dimension (e.g., price, output, capacity, or quality), and (ii) detect deviations from the coordination, and (iii) punish firms that deviate.[34] A merger may make coordinated conduct substantially more likely to occur by making it easier for firms to meet one or more of these necessary conditions. Even assuming those conditions are satisfied, enforcement action should only proceed if the evidence indicates that anticompetitive coordination would likely occur.

[33] In particular there is the possibility that a vertical merger might alter incentives so as to make refusal to supply – or worsening the terms of supply – more credible than pre-merger, to the detriment of competition and ultimately of consumers.

[34] For example, a vertical merger taking place in the presence of an already vertically integrated incumbent might increase cost transparency between the new integrated firm and the integrated incumbent. Similarly, to the extent that a vertical merger would increase transparency in any of the key dimensions of competition (e.g., better enabling a seller to know that it lost a sale to competitor because of a lower price), the ability and incentive to achieve successful anticompetitive coordination may be enhanced.

Assessment

Unilateral anticompetitive effects

H.9. In assessing the possible anticompetitive effects of a vertical merger it is important to consider the following:

- First, it is necessary to check whether or not the integrated merging firm would have the **ability** to exercise market power in the upstream and/or downstream market to foreclose rivals or raise their costs in a way that harms consumer welfare. Evidence with regard the upstream market could include, for example, the demand elasticity for the input (i.e., are inputs sold by the other upstream firms close substitutes?); whether or not upstream rivals have excess capacity (could they expand their supplies, for instance, in the case where the integrated merging firm refuses to supply the independent downstream firms?); and the existence of potential entry. These factors might reduce the ability of the merged firm to exercise market power in the upstream market. This is a similar analysis as for a horizontal merger situation to see whether the merging firm is able to sell at higher prices (or cease to supply) the input to the downstream firms in a non-transitory and profitable way. At downstream level, a similar analysis should also be carried out.

- Second, even if the merged entity has the ability to foreclose rivals or to raise their costs, it is important to consider the **incentives** of the merged firm to engage in this conduct in any market. Thus, evidence should focus on whether and to what extent the merger would actually enhance the incentives to act in a way that is detrimental to consumers. In certain cases, the merged firm may have the ability to engage in anticompetitive practices in some way, but lack the incentive to do so as such a strategy would not be profitable. As previously emphasized, a vertical merger should not be challenged absent evidence supporting all elements of the theory of anticompetitive harm.

- Finally, an analysis should be carried out to check whether or not consumers (or customers) are harmed as a result of the transaction. In particular, any efficiency claims of the vertical merger should be taken into account.

Increased potential for coordination

H.10. In matters where there are concerns about possible price or output coordination, the concepts discussed in Worksheet D on coordination as a result of a horizontal merger, should be assessed. Will the merger affect the scope for alignment, market transparency, monitoring of adherence to the coordinated strategy, incentives not to deviate from that strategy, and competitive conditions conducive to coordination? The analysis, moreover, should focus not only on the potential for coordination (which may exist even pre-merger) but also on whether the merger increases the likelihood of coordination in any of the post-merger relevant markets. Absent evidentiary showing of an increased likelihood of coordination, an enforcement action is inappropriate.

Countervailing factors

H.11. As with horizontal mergers, a vertical merger that enables a firm to achieve or enhance market power may nonetheless produce substantial efficiencies. When these efficiencies are properly accounted for in the competitive effects analysis, the merger may be competitively neutral, if not pro-competitive, in so far as consumer welfare is concerned.

BOX 9 - Vertical Mergers: Case studies

United States of America v. Premdor Inc. and Masonite Corp Premdor Inc (2001)

Masonite, the second-largest US manufacturer, and the primary supplier in the merchant market, of 'interior molded door-skins' a critical input into the manufacture of doors) was the target of an acquisition by Premdor, the second-largest manufacture of 'interior molded doors', and a small but significant participant in the upstream market through a joint venture. The DOJ's concern was that vertical integration between these two firms would facilitate coordination with their primary rival, the leading firm in both markets, which was already vertically integrated. That coordination would be facilitated (a) in the upstream market, where coordination between Masonite and the leading firm could be frustrated if an independent Premdor responded by expanding its output of doorskins, (b) in the downstream door market, where coordination between Premdor and the leading firm could be frustrated if an independent Masonite expanded its sales of doorskins to smaller, independent door manufacturers, (c) in both markets, by more closely aligning the cost structures of the new merged firm and the leading firm, and (d) in both markets, by eliminating information asymmetries. The DOJ required divestiture of a doorskin plant as a remedy.

E.ON / Stadtwerke Lübeck (2003)

The German Bundeskartellamt prohibited E.ON, a large energy grid company, to acquire a 49,9 per cent share in the local municipal utility Stadtwerke Lübeck GmbH. According to the Bundeskartellamt's findings, the planned concentration would have resulted in a strengthening of dominant positions in both the national and local markets for electricity and gas sales. The markets affected were those for the supply of electricity to electricity distributors, to major and to small electricity customers as well as the market for the supply of gas to major gas customers. The vertical integration would have further foreclosed the markets affected and would thus have increased the companies' scope for action, i.e. their leeway for raising prices, to the detriment of consumers.

Patrick Corporation Ltd / FCL Interstate Transport Services Pty Ltd (2005)

In this case the Australian Competition and Consumer Commission investigated the proposed acquisition by Patrick Corporation (a publicly listed transport logistics company with a range of interests, including a 50 per cent shareholding in Pacific National, Australia's largest rail operator) of FCL is a large freight forwarding company whose principal business is freight forwarding with an emphasis on rail freight forwarding . The ACCC decided to oppose the proposed acquisition on the basis that:

- There would be a substantial lessening of competition in the market for the provision of Australia-wide rail freight forwarding services through foreclosure of the merged entity's freight forwarding rivals. The ACCC considered it likely that the proposed acquisition would increase Pacific National's ability and incentive to raise prices or otherwise discriminate against independent freight forwarders through the exercise of operational discretion in relation to train slot allocation practices and service pricing.
- There would be a substantial lessening of competition due to the raising of entry barriers in the market for east-west rail line-haul of non-bulk freight. The proposed acquisition would also make it significantly more difficult for rival rail line-haul operators to enter this market in direct competition with Pacific National.

Conglomerate Mergers

H.12. Conglomerate mergers also involve firms that operate in different product markets but without a vertical relationship. In practice, the focus is on mergers between companies that are active in related or neighbouring markets, e.g., mergers involving suppliers of complementary products or of products belonging to a range of products that is generally sold to the same set of customers.

H.13. Unlike horizontal mergers, conglomerate mergers do not entail the loss of direct competition between the merging firms in the same relevant market. A further characteristic of conglomerate mergers is that there is often a potential for efficiency gains when the products of the companies involved are complementary to each other. Therefore, conglomerate mergers normally do not harm consumers. However,

in rare circumstances, such mergers may raise competition concerns of foreclosure, or possibly, facilitating collusion.

H.14. Merger review in this area is controversial. Indeed, there is disagreement among jurisdictions over whether pure conglomerate mergers can result in competition concerns sufficient to justify intervention.

H.15. In conglomerate mergers, as well with horizontal or vertical mergers, intervention requires the competition authorities to make predictions about future developments of the markets concerned and of behaviours of the merging parties. These predictions are typically much more difficult with respect to conglomerate mergers than with respect to horizontal or vertical mergers. For this reason, some enforcement agencies prefer to use their ex-post powers to constrain abusive practices, instead of ex-ante merger powers, for any competitive concerns associated with a conglomerate merger. In their view, the risk that challenging a merger could result in consumer harm is significantly greater for conglomerate than for horizontal mergers and even vertical mergers. However, some other competition agencies believe it might be more efficient to prevent possible anticompetitive concerns under merger control powers in order to avoid the need for ongoing ex-post intervention and use of monopoly powers. These competition agencies opine that the risk of consumer-harming intervention does not always justify abstention from enforcement action against conglomerate mergers.

H.16. In terms of **unilateral** conglomerate theories of competitive harm, those agencies who believe ex ante control is warranted argue that in settings where the merger brings together strong market positions in individual markets, the new firm may be able to strengthen its market positions by means of tying or bundling. The main competitive concern in this context is foreclosure: as a result of tying or bundling, demand for competing rivals' products may be curtailed, as a result of which these rivals become less effective competitors in the longer run.[35] Foreclosure may be inspired by the desire to gain market power in the tied goods market, to protect market power in the tying goods market, or a combination of the two.

H.17. However, such conduct is likely to result in adverse effects on competition only if it would be difficult for rivals or new entrants to provide competing bundles and if they

[35] See also the OECD Roundtable on 'Portfolio Effects in Conglomerate Mergers' (2002).

would therefore be unable to constrain the behaviour of the merged entity which could then engage in profitable price increases, output reductions or other strategies. As with assessing vertical mergers, it is important to consider first the ability and second the incentives of the merged firm to foreclose competition in any market. Finally, a careful analysis, which among other things considers any efficiency claims, should be conducted to determine whether consumers are likely to be harmed as a result of the transaction.

H.18. As far as **coordinated** effects are concerned, conglomerate mergers may facilitate coordination especially if the merged firm's rivals in one market are also rivals in at least one of its other markets and if other factors facilitating collusion are also present in these markets (see worksheet D).

H.19. The theory of competitive harm to consumer welfare in non-horizontal mergers needs to be substantiated by convincing evidence particularly given the fact that there is no loss of direct competition between the merging parties in the same relevant market.

BOX 10 – Conglomerate Mergers: Case studies

GE / Honeywell (2001-2005)

In December 2005, the European Court of First Instance (CFI) upheld the European Commission's decision of July 2001 to block the merger of General Electric and Honeywell.
The Court did not annul the EC decision but it held that Commission made errors in relation to various aspects of the case, in particular in its analysis of conglomerate effects.
The CFI upheld the EC's findings concerning the horizontal effects of the merger. However, the CFI said the EC theories of conglomerate effects were not sufficiently established and proved.
The first theory concerned the conglomerate effects resulting from the merger owing to GE's financial strength and vertical integration. The Commission concluded that, post-merger, GE would have extended to Honeywell's markets its practices on the market for large commercial jet aircraft, by which it used its financial and commercial strength derived from its subsidiaries. The Court held that the Commission did not adequately establish that those practices, assuming that they had been put into effect, would have been likely to create dominant positions on the various avionics and non-avionics markets concerned.
With respect to the conglomerate effects resulting from bundled sales of GE's engines with Honeywell's avionics and non-avionics products, the Court said that, in absence of the actual bundled sales, the fact that the merged entity would have had a wider range of products than its competitors was not sufficient to establish the dominant positions would have been created or strengthened for it on the different markets concerned. The EC had not established, on the basis of sufficiently strong economic evidence or on the basis of internal company documents, that the merged entity would have had the incentive to start offering bundled products.

Springer / ProSiebenSat.1 (2006)

The German Bundeskartellamt prohibited in January 2006 the proposed conglomerate merger between the two media companies Axel Springer AG ("Springer") and ProSiebenSat.1 Media AG ("ProSiebenSat.1"). Springer held dominant positions in German newspaper markets in which ProSiebenSat.1 was not active, and conversely ProSiebenSat.1 held a dominant position in the German TV advertising market in which Springer was not active. However, the merger would have strengthened the respective dominant positions in both newspaper and TV markets.
With its newspaper BILD, Springer held a market share of approx. 80 % in the national reader market for over-the-counter newspapers. The merger would have enabled Springer to further secure and strengthen BILD's position through cross-media promotional and editorial measures (cross-media promotion). As far as the national advertising market for newspapers is concerned, the merger would have enabled Springer to offer from one source coordinated product advertising campaigns in several media and to launch cross-media advertising campaigns for third parties.
ProSiebenSat.1 and the Bertelsmann group together held a dominant position in the TV advertising market with a constant market share of approx. 40 % each over the last years (duopoly dominance). The merger would have lead to a further assimilation of the corporate structures of the two groups in the neighbouring markets for newspapers and magazines and would have resulted in a number of interlocks between Springer/ProSiebenSat.1 and Bertelsmann. This would have further secured and strengthened the duopoly, thus leading to coordinated effects. Also, unilateral effects were likely, as with the merger the newspaper BILD would have lost its substitute function as currently the only economic alternative to national TV advertising for advertising customers.

CHAPTER 5 – GLOSSARY, FURTHER RESOURCES AND LINKS TO CASE STUDIES

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Product Market Definition

Coca Cola Enterprises / Amalgamated Beverages (1997)

In the European Commission case Coca Cola Enterprises/Amalgamated Beverages GB (1997) the question was whether cola flavoured carbonated soft drinks constituted a separate relevant product market or whether other carbonated soft drinks put a constraint on them. Shortly before that case was notified a number of other cola flavoured carbonated soft drinks had been introduced in Great Britain by other producers. As it turned out, these new brands had taken away market share predominantly from other cola flavoured carbonated soft drinks. Moreover, Coca Cola had reacted by increasing its advertising budget for colas but not for its other carbonated soft drinks. Consequently, the European Commission came to the conclusion that there was a separate product market for cola flavoured carbonated soft drinks.

Superior Propane Inc. / ICG Propane Inc. (2002-2003)

In December 1998, the Canadian Competition Bureau challenged Superior Propane's acquisition of ICG Propane Inc. In the decision following the initial s.100 hearing for an Interim Order, the Competition Tribunal considered the product market to be broader than propane, (i.e. that the market included other forms of energy). However, following the full s.92 hearing, which involved many witnesses and weeks of hearings, the Tribunal ruled that the product market was "retail propane" and that other fuels were excluded. In addition, the Tribunal considered there to be a market for "national account coordination services" for those consumers who found it "more convenient to contract for propane supply from one marketer with national operations or capabilities rather than from several marketers in local markets". The Tribunal found that the merger would create a monopoly in many local markets, and would also have negative consequences for consumer choice, service and price throughout Canada. However, the merger was allowed to proceed on the basis that the efficiencies the merger generated would be greater than its anti-competitive effects.

De Persgroep and Rossel / Uitgeversbedrijf Tijd and Editeco (2005)

In 2005, the Belgian Competition Council approved with conditions two concentrations in the media sector. The transactions involved the subsequent acquisitions by two media and publishing groups, De Persgroep and Rossel, of the publishers of the two financial newspapers in Belgium, respectively De Tijd (Dutch-language) and L'Echo (French-language).
The Competition Council concluded that Dutch- and French-language financial newspapers constituted separate product markets. In defining the product scope of the markets, the Council considered price differences persisting between financial- and general newspapers and the specific characteristics of financial newspapers. The lack of demand-side substitutability of the two classes of papers was, for instance, demonstrated by the fact that compared to readers of general newspapers, a larger proportion of readers of business newspapers also read a second newspaper title. Language was considered to constitute a product characteristic, because, in practice, Belgian readers (and advertisers) do not consider Dutch- and French-language newspapers to constitute viable substitutes. In addition, a real-life shock analysis had indicated an outcome which was consistent with the above findings: prior to the investigation, strikes at some of the general newspaper publishers had resulted in output restrictions with respect to the relevant general newspaper titles. Demand had then

increased for other general newspapers, but financial newspapers had not experienced a corresponding increase in demand.

Woolworth's / Foodland Associated Limited (2005)

The Australian Competition and Consumer Commission (ACCC) identified the following three markets in its assessment of a proposed acquisition of 22 supermarkets and development sites: (i). the local supermarket markets encompassing the local areas surrounding each of the stores being acquired. In these markets supermarkets compete to provide a bundle of goods and services to consumers within a limited geographic area; (ii) procurement markets which included the markets for the procurement of the various items sold by supermarkets and which vary in size according to the characteristics of the particular products. In this inquiry there was a particular focus on regional markets for perishable fresh products in Western Australia, since sellers of these products are less able to sell their products to interstate or international purchasers due to transport costs and perishability of their products; and (iii) the national wholesale market in which supermarket wholesalers, whether independent or vertically integrated, supply goods at the wholesale level to supermarkets for retail sale. The ACCC concluded that the acquisition was unlikely to result in a substantial lessening of competition in any of the relevant markets.

Geographic Market Definition

Australian Trade Practices Commission v. Australia Meat Holdings (1988)

The Federal Court of Australia in 1988 reviewed a transaction which involved Australia Meat Holdings' increasing its ownership of abattoirs in Queensland, Australia. The Court was inter alia called upon to decide whether there was more than one geographic market for ''fat cattle'' within Queensland. Fat cattle are cattle in such a condition that there is no advantage in postponing slaughter. Fat cattle are generaly purchased by abattoirs.
The court held that there were at least two geographic markets for the sale of fat cattle in Queensland. One of the primary reasons for this delineation was the high cost of transport. Transporting cattle gives rise to both direct costs (i.e., the price of the carriage of the animals by truck or train) and indirect costs (e.g., the quality of the animals might deteriorate in transit - including a loss of weight which ultimately reduces the value of each animal). Indeed, there was evidence before the Court that during periods of drought, cattle might not be healthy enough to survive a journey from farms in the north of Queensland to abattoirs in the south of Queensland.

Interstate Bakeries / Continental (1995)

The US Department of Justice challenged Interstate Bakeries Corp.'s purchase of Continental Baking Co., alleging that the purchase likely would have produced significant price increases for white pan bread in five major metropolitan areas. The Department concluded that competition in bread was localized to these metropolitan areas; bakers charged different prices for the same brands produced in the same bakeries, depending on where the bread was sold, and that arbitrage was infeasible. Arbitrage (purchasing where the price was low and reselling where the price was high) was exceptionally costly because the bakers themselves placed their bread on the supermarket shelves, so arbitrage required removing bread from the shelves, reshipping it, and reshelving it. This process also would consume a significant portion of the brief period during which the bread is fresh.

Volvo / Scania (2000)

In the case Volvo/Scania (2000), one of the main issues was the extent of the geographic market for heavy trucks. The investigation focused on Northern Europe, and in particular on the question whether the relevant geographic markets were to be considered national in scope. The notifying party maintained throughout the procedure that the effects of the merger should be assessed at the European level. The European Commission came to the conclusion, however that the relevant markets for heavy trucks were national based on differences in technical requirements, purchasing habits, market shares in various Member States and the possibilities to price discriminate between customers in different Member States. Particular importance was attached to the fact that a key factor in the decision relating to the purchase of trucks is the after-sales network (maintenance, ordinary and extraordinary, as well as supply of spare parts) which can be offered by a given truck manufacturer. In the Nordic countries, only Volvo and Scania had substantial service networks, the other European truck companies having significantly smaller and less well-spread service networks making it difficult for them to sell into the Nordic countries.

Canadian Waste Services Inc ./ Browning-Ferris Industries Ltd. (2001-2003)

In April 2000, the Bureau challenged Canadian Waste Services Inc.'s acquisition of a southern Ontario landfill on the grounds that it would likely result in higher prices for customers of waste disposal services in the Greater Toronto Area and Chatham–Kent. The Tribunal concluded that there was evidence of price discrimination and that, absent the transaction, excess capacity in Southern Ontario would likely lead to a decline in Tipping Fees for industrial, commercial and institutional waste from the Greater Toronto Area. This was sufficient to find that the relevant geographic market excluded the states of Michigan and New York. Following a contested hearing in November 2000, the Competition Tribunal ruled in favour of the Bureau's position in March 2001. The Tribunal accepted the Bureau's proposal for a remedy and ruled that Canadian Waste must divest itself of the landfill in question. Canadian Waste appealed both the March and June 2001 decisions. In March 2003, the Federal Court of Appeal dismissed Canadian Waste's appeals, ruling that the Tribunal had specialized expertise in making its findings.

ENI / EDP / GDP (2004)

In the case ENI/EDP/GDP (2004), the European Commission analysed the acquisition of joint control over Gás de Portugal (GDP), the incumbent gas company in Portugal, by Energias de Portugal (EDP), the incumbent electricity company in Portugal, and ENI, an Italian energy company. The relevant geographic market for the wholesale and retail electricity markets was considered to be Portuguese in scope and not the whole of the Iberian peninsula (Portugal and Spain). This was concluded on the basis of large price differences of electricity supply in Portugal and Spain, low current and projected levels of interconnection capacity between the two countries and different national regulatory environments relating to, among other things, CO2 emission allocation and compensation schemes for stranded costs.

Edeka / ITM / SPAR (2005)

In the case Edeka/ITM/SPAR, the German Federal Cartel Office cleared a complex transaction involving the takeover of the supermarket chain SPAR by Edeka, a supermarket chain for daily consumer goods, as well as the establishment of a European-wide procurement cooperation with other French and Spanish supermarket chains.
The Federal Cartel Office analysed the competitive effects of the operation on the basis of distinct markets for procurement and retail sales of food.
The parties argued that the geographic scope of retail food sales market was national, since all major players for daily consumer goods operated national chains of stores. The Federal Cartel Office considered consumers' demand-patterns and concluded that only stores which could easily be

reached by the consumers were competing. Accordingly, the geographic markets were defined on the basis of circles of 20 km (or a 20 minute car ride) from the relevant stores.
As regards the effects of the takeover for the procurement side, the Federal Cartel Office defined the market as being national in scope. The main argument supporting this conclusion was that procurement decisions would be taken centrally by the major customers which negotiated uniform conditions with the suppliers for the whole German territory.

Concentration Measures

Grafton / Heiton (2005)

In the acquisition of Heiton Group plc by Grafton Group plc, the parties overlapped in two main relevant product markets: supply of 'do-it-yourself' ('DIY') products and supply of building materials. The Irish Competition Authority calculated the market shares (based on sales) for each of the two relevant markets in the relevant nation-wide geographic market. In the DIY market, where only four superstore chains and a small fringe of independent stores were operating, the shares of Grafton and Heiton were respectively 42.4% and 27.2% and the merger entity would hold approximately 70% of national DIY superstore sales. However, according to the Authority, these shares did not capture the dynamic growth and expansion that was characterizing those markets. (In the other relevant product market, the combined market share of the merged entity was much lower - around 19%.)
The Authority found substantial evidence not only of past entry in the two markets (both from chain and a fringe of independent stores), but also of expansion plans by the existing suppliers (considered in the counterfactual), which would increase competitive pressure in the two markets whether or not the merger was approved. Furthermore the Authority observed that these fast-growing markets were characterized by low barriers to entry: low switching costs for customers and low set-up costs.

Haniel / Cementbouw / JV (CVK) (2002)

The European Commission came to the conclusion that the acquisition of joint control by the German Haniel group and Dutch Cementbouw over the Dutch producer of sand lime bricks, CVK, had led to a dominant position on the Dutch market for building materials for load-bearing walls. Apart from the high market share of CVK (over 50%), the Commission took into account the fact that the market for wall building materials was a differentiated product market. Accordingly, the Commission considered that other wall building products in this market, such as in situ concrete, exerted a less than full competitive constraint on CVK, the only producer in the Netherlands to offer sand lime bricks following the transaction.
The Court of First Instance upheld the Commission' analysis upon appeal, stating that "the absence of significant competitive pressure from the in situ concrete sector may also, in part, be inferred from the differentiated nature of the products on the relevant market (…). The differentiated nature of the products means that each product is not a perfect substitute for the other and that, consequently, an increase in the price of one of them does not necessarily have the effect that the undertaking which has increased the price will lose market share to its competitors which produce the other product, as would be the case for perfectly substitutable products. The fact that in situ concrete is not perfectly substitutable for sand-lime bricks (…) makes it possible to relativise the competitive pressure which that material and its producers exert on CVK."

Unilateral Effects

Franklin Electric / United Dominion (2000)

Subsidiaries of Franklin Electric Co. and United Dominion Industries were the only two domestic producers of submersible turbine pumps used for pumping gasoline from underground storage tanks at retail stations. The parent companies entered into a joint venture agreement that would have combined those subsidiaries. The US Department of Justice found that entry was difficult and that other pumps, including foreign-produced pumps, were not good substitutes. Hence, the Department challenged the merger because it concluded that the formation of the joint venture likely would create a monopoly and thus give rise to a significant unilateral anticompetitive effect.

Philips / Agilent (2001)

In the case Philips/Agilent of 2001, the European Commission arrived at the conclusion that, although the merging parties would clearly become the leading company in several markets for medical equipment, no anti-competitive effects would be likely to occur. Agilent specialised in the manufacture of ultrasound imaging machines, in particular for cardiac solutions. Philips was active in diagnostic ultrasound systems for diverse applications. In the market for cardiology applications, the combined market share of the parties would be up to 50% in some European countries. Nevertheless, the operation was cleared on the basis of a number of arguments, one of which was that the products of the parties in cardiac ultrasound were not close substitutes and other products would provide a sufficiently strong competitive constraint. These facts were established partly on the basis of bidding data on a large number of competitions for the supply of medical equipment to hospitals.

VNU / WPP (2004)

The European Commission analysed buyer power arguments in the case VNU/WPP (2004). The transaction concerned Television Audience Measurement systems (TAM) and would reduce the number of credible bidders in future tenders from four to three. The buyer power argument applied to those countries in which the TAM services were tendered and purchased by a so-called Joint Industry Committee (JIC). The Commission noted that usually in a tender process the previous incumbent enjoyed a cost advantage, which could discourage potential entrants to bid aggressively. But on the basis of a specific example from the UK, in which the JIC had sent a strong signal about willingness to change supplier, the Commission found that a well-structured tender procedure indeed seemed to be capable of attracting very competitive bids from new entrants.

Fosters / Southcorp (2005)

In March 2005 the Australian Competition and Consumer Commission (ACCC) announced that it would not take steps to prevent the beverage company Foster's Group acquisitioning the wine producer Southcorp Limited. The ACCC considered that, post merger, there would still be several medium and large wine producers with strong brands and the ability to constrain the behaviour of the merged entity. In addition, barriers to entry were not of a level to prevent the establishment of new brands or the expansion of existing ones, and large supermarkets were considered to have the ability to exercise buyer power in the market. Finally, with regard to the merged entity's purchasing power, it was considered that there would still be a number of alternative purchasers able to constrain the merged entity's purchasing behaviour post merger.

Coordinated effects

Gencor / Lonrho (1996)

The European Commission analysed the likelihood of coordinated effects in the case Gencor/Lonrho (1996). This case concerned the proposed merger of the platinum activities of Gencor and Lonrho. The merger would have reduced the number of companies controlling platinum reserves in South Africa (accounting for about 90% of world reserves at the time) from three to two. Together these two firms would have accounted for about 70% of world supply. Supply from other sources, including Russia, was fragmented. The Commission observed that the platinum market has many of the characteristics of a market conducive to coordination, in particular the product market being a commodity market (homogenous goods) and a high degree of transparency in the market as regards prices. The merger would have led to the industry being composed of a small and close group of companies. As the merger involved a high cost company and a low cost company, the merger would reduce the degree of asymmetry in the market and align the incentive to coordinate. As to the stability of coordination, the Commission considered that the likelihood that price cuts by one of the duopolists would be met by equivalent price cuts by the other could be a sufficient deterrent for a company contemplating to deviate. The Commission saw little scope for either competitors or customers to provide a sufficient counterweight to the likelihood of collusion in the industry post merger. The merger was prohibited.

Suiza / Broughton (1999)

Suiza Foods Corp. and Broughton Foods Co. proposed to merge. Broughton owned the Southern Belle dairy in Somerset, Kentucky, and Suiza operated several dairies in Kentucky, including the Flav-O-Rich dairy in London, Kentucky. Six years earlier, when Flav-O-Rich and Southern Belle were independently owned, both pleaded guilty to criminal charges of rigging bids in the sale of milk to schools. The US Department of Justice found that the proposed merger would have reduced from three to two the number of dairies competing to supply milk to thirty-two school districts in South Central Kentucky, including many that had been victimized by the prior bid rigging. The Department challenged the merger on the basis that it likely would lead to coordinated anticompetitive effects.

Cruise Line Cases (2001)

At the beginning of December 2001, the largest firm (Carnival Corp.) and the second largest firm (Royal Caribbean Cruises, Ltd.) in the ocean cruise industry battled one another to acquire the industry's third largest firm (P&O Princess Cruises plc.) The FTC investigation ended with a finding that even though the transactions arguably reduced the number of major competitors from four to two, mergers involving the four cruise lines were unlikely to result in coordinated interaction between the remaining companies.

Therefore, despite the initial presumption governing mergers in highly concentrated industries, the FTC found that the cruise companies would continue to have a significant incentive to compete independently on price, capacity growth and quality improvements. In order to establish a theory of coordinated interaction theory, the FTC would have had to establish why either merger would reorient these powerful incentives in a dramatically different direction, i.e. towards higher prices, reduced capacity, or diminished quality. The FTC considered four types of coordinated effects theories: (i) the maverick theory; (ii) coordination of capacity reduction; (iii) theories of coordination on amenities offered (quality coordination); and (iv) theories of price coordination.

In regard to price co-ordination, the FTC found a highly complex pricing structure in the industry, which rendered coordination difficult. The FTC found no discernible categories of prices and a complex pricing structure due to the wide variety of products. In addition, there was no practical way for cruise companies to monitor each others' prices, given the large number of prices available at any time, depending on, for example, the type of cabin, type of ship and facilities, the destination and itinerary, and how far in advance the cruise is purchased. As cruise prices exhibit so much unsystematic variation, detecting cheating would be very difficult even if the coordinating cruise lines

had immediate access to all of each other's prices. Even if price changes could be detected, the cruise lines could never be sure whether they were mandated by a legitimate need to respond to demand changes, or instead constituted attempts to cheat on the price coordination. As competitors are unable to detect cheating and demand fluctuations are frequent and large, coordination is likely to be very difficult Based on high elasticities and low Critical Loss, it was also clear that the parties could not impose an across-the-board price increase. As a result, the FTC's investigation focused on determining whether the parties could implement a coordinated price discrimination scheme, raising prices to less elastic customers while keeping prices lower for elastic customers. However based on the aforementioned factors the FTC concluded that pricing coordination post-merger would be "unworkable."

United States of America v. UPM (2003)

UPM was a Finnish producer of forestry and paper products. Its US subsidiary sold label stock, a paper-based material used in the manufacture of labels. UPM entered into an agreement to acquire a competitor, MACtac, which had a share of approximately 20 per cent in the US market for label stock. Post-merger UPM's largest competitor, with 50 per cent of the US market for label stock, would have been Avery. Between them UPM and Avery would have a post-merger share of 70 per cent in the US market for label stock. The picture was further complicated by the fact that UPM supplied Avery with paper, a raw material used in the manufacture of label stock.
The US Department of Justice (DoJ) challenged the proposed merger in court, seeking a preliminary injunction prohibiting the completion of the merger pending a full trial. The DoJ argued that as a result of the merger, competition in the US market for label stock would be lessened since UPM and Avery would have little incentive to compete with one another and that the two companies, with 70 per cent of the market between them, would find that they had a mutual interest in maintaining prices at a higher than competitive level. The remaining 30 per cent of the market was held by a number of smaller undertakings and these relatively marginal players did not have the economic clout (i.e., low costs and available capacity) to undercut UPM and Avery. Avery's existing paper supply arrangements with UPM would further lessen any incentive for the two companies to compete.
The court found that the remaining competitors all had an incentive to go along with any price increases by UPM and Avery. Even if the remaining competitors wanted to defeat attempts at price increases by the giants they would be unable to expand their own output to a sufficient extent to serve substantial numbers of the customers of the giants. The court found that UPM's business interests would be best served by a significant period of lessened competition. The court held that it was probable that price competition would be diminished if the merger went ahead, with the result that consumers would be damaged by paying more than they otherwise would pay. It therefore granted the DoJ's motion. UPM subsequently abandoned the transaction.

Murray and Roberts / Cementation (2004)

M&R is a well-known South African construction company, which focuses on a wide range of construction and industrial manufacturing activities. M&R RUC is an internal division providing mining contracting services and infrastructure development and is the business that was relevant in the context of the proposed transaction.
The Competition Tribunal's investigation focussed on two sub-markets within the broad market for the provision of mining infrastructure, being shaft sinking and raise drilling. On the face of it, the transaction failed many of the important tests commonly used to evaluate the competitive impact of horizontal mergers. For example, the Tribunal found that the transaction would result in the elimination of successful competitors in both markets, including one in which the competitor eliminated had adopted a competition-enhancing aggressive pricing strategy. In reducing the number of competitors from three to two, the Tribunal noted that this increase in concentration might enhance the likelihood of co-operation, particularly in those markets where barriers to new entry appeared to be high.
However a detailed evaluation of the dynamics of the affected markets revealed factors sufficient to mitigate these initial concerns around coordinated effects. Key among the factors highlighted by the Competition Tribunal were the tender market characteristics together with the 'large projects or lumpy market' characteristics. While the Tribunal noted that in a bidding market collusion could take the form

of bid rigging, it was of the view that the features of a 'large project' market would constrain this. In particular the Tribunal found that the following factors mitigated against collusive behaviour among market participants. First, that the customers' detailed knowledge of the activities in question would make it extremely difficult to construct a collusive bid that would not invite detection; second, that the opacity of the tendering process made it extremely difficult for colluding sellers to detect cheating on the part of their co-conspirators; and, third, that due to the once-off nature of the product or service sold, the incentive to cheat was great and the means to punish cheating all but non-existent.

FTC v. Arch Coal, Inc (2004)

In April 2004, the US FTC sought to challenge Arch Coal's proposed acquisition of Triton Coal. Arch Coal and Triton Coal were two of seven companies operating fourteen mines in Wyoming's Southern Powder River Basin (SPRB) region, which is known for low sulphur content coal.
The FTC expressed concern that the acquisition might increase the likelihood of coordination in the market for SPRB coal - a market that is already susceptible to coordination as it possesses several structural features that make coordination more likely, including a small number of competitors, high barriers to entry, homogeneity of the relevant product, relatively inelastic demand, availability of substantial market and competitor information, and close geographic proximity of competitors.
Arch Coal sought to relieve the FTC's concerns about potential post-merger coordination by entering into an agreement to sell one of the mines to a large firm with mining interests outside the SPRB region. Nevertheless, the FTC sought a preliminary injunction in federal court to maintain the status quo ante pending completion of an administrative proceeding. The court rejected the request, concluding that the government failed to meet its burden under section 7 because the merger (along with the planned divestiture) did ''not reduce the number of competitors and only modestly increase[d] the concentration in what has been a very competitive market.''
The court also rejected the FTC's coordinated effects theory based on output reduction (and not on price coordination) noting that that the FTC's burden to establish anti-competitive effects was therefore more difficult. In the FTC's view coordination required only that producers adopt strategies consistent with competing less aggressively. Competitors therefore need not agree on market conditions or act in some common interest. The FTC's expert relied on three primary sources of evidence to support a conclusion on the increased likelihood of coordinated interaction 1) documents and public statements suggesting signalling of intentions regarding output, 2) availability of data in the marketplace allowing competitors to monitor the outcomes of any implied agreement, and 3) an empirical analysis of the relative profitability of deviating from a coordinated agreement. In finding that the SPRB market was competitive and that the structure and dynamics of the market would make coordination to limit production difficult, the court concluded that the government had failed to demonstrate that enhanced coordination was likely.

Skanska / Scancem (1998)

In the case Skanska/Scancem, in assessing the likelihood of entry into the supply of ready-mixed concrete, the European Commission took into account that the costs of commencing production were low but also noted that 'there already exists a significant overcapacity on the Swedish market, and the market is not forecast to grow significantly in the near future. A new entrant would therefore have to take significant sales from the existing players in order to establish itself. A new entrant would also have to consider that Skanska, given its control over the main raw material, cement, would be in an excellent position to affect its possibilities of making a sufficient return on the investment. Moreover, given the already existing overcapacity, and the fact that a ready-mixed plant cannot readily be used to produce other goods, any investment in new production capacity would largely be a sunk cost.' The European Commission also observed that as well as being likely and timely, entry needed to be sufficient to counteract the merged entity's market power. It stated that 'the relevant question is not only whether new entry is possible, but also whether it is likely to be on a scale sufficient to restrict Skanska from behaving largely independently of its competitors following the concentration.'

HP / Compaq (2001)

The merger HP/Compaq was cleared by the European Commission after an initial investigation despite the fact that in the market for Personal Digital Assistants running a certain operating system, HP and Compaq held market shares above 60% and 25% respectively. The main reason was that entry barriers into that market were low. This conclusion was based in part on the fact that competitors had already announced launch of competing products.

Ingersoll-Dresser / Flowserve (2001)

The US Department of Justice challenged the proposed acquisition of Ingersoll-Dresser Pump Co. by Flowserve Corp. on the basis of likely unilateral anticompetitive effects in markets for specialized pumps used in oil refining and electrical generation facilities. The Department found that the design and testing of an array of such pumps would entail substantial sunk costs. The Department also found that an entrant could not effectively compete in the relevant markets without incurring additional sunk costs in the establishment of a network of service and repair facilities. And because pump failure could shut down part of a refinery or electric generation plant, the Department found that many customers in the relevant markets would not purchase from a supplier that had not demonstrated the reliability and efficiency of its pumps in the particular use for which the pump was being sought. This fact added additional sunk entry costs and extended yet further the substantial time successful entry would take.

Yamanouchi / Fujisawa (2004)

The merger of Yamanouchi and Fujisawa to establish Astellas Pharma was cleared by the Fair Trade Commission of Japan (JFTC), after its detailed review of several product markets which are highly concentrated. With regard to the markets of antipsychotic agent and anti allergic for ophthalmology, JFTC referred to the history in the market in the recent five years, in which new entrants successfully expanded their position.

IBM / SBCS (2004)

In the proposed acquisition of Schlumberger Business Continuity Services (Ireland) Limited ("SBCS") by IBM Ireland Limited ("IBM"), the Irish Authority blocked the deal because the proposed merger would have created a super-dominant position in the market for business recovery services.
In analysing entry, the Authority identified three main barriers: (i) the reputation of the provider – it emerged that this was crucially important for customers who placed a premium on reliability of service and could be acquired only through years of experience; (ii) large sunk costs - the cost of equipment was high, specific and irreversible; (iii) long-term contracts – contracts were typically of 3-5 year duration with only 25% of contracts becoming available in any particular year. This last barrier compounded the reputation effects.
Business customers submitted that switching costs were high since moving to other suppliers would undermine the relationship with their current supplier. In this sense, they were artificially created by the incumbents. Furthermore, the most likely entrant, the UK firm Sungard, confirmed to the Authority that the 70% of set-up costs were sunk and it would be difficult to enter a mature market with customers locked into long-term contracts. Finally, market enquires from parties, customers and other providers showed that the existing suppliers (from the low-value segments of the market) lacked the requisite capability, capacity, industry reputation and experience to constrain a short-run exercise of market power. That is why, although entry into the industry was observed, the two new operators could only position themselves in the low-value segment of the market.

National Oilwell / Varco (2005)

Entry considerations were a major factor in the US Department Justice's decision not to challenge the acquisition by National Oilwell Inc. of Varco, Inc. Those firms were among the very few significant competitors in the sale of various products and services relating to offshore drilling for oil and gas, and that fact initially gave the Department serious concerns about the competitive effects of the acquisition. Nevertheless, the Department found that many of the customers for these products and services believed that they would be able to sponsor successful entry by committing to make purchases from firms with little or no current market presence. The Department also identified numerous sellers of related products and services interested in entering.

Efficiencies

IMC Global / Western Ag (1997)

IMC Global Inc. proposed to acquire Western Ag-Minerals Co. The two companies operated the only potash mines and processing facilities in the Carlsbad region of New Mexico, which contains the only known reserves of langbeinite in the Western Hemisphere. Langbeinite is a mineral used to produce an agricultural fertilizer supplying magnesium, potassium, and sulphur, which are important in the production of certain crops and in correcting deficiencies in certain soils. The US Department of Justice's preliminary analysis indicated that a single owner of both langbeinite mines would find it optimal to raise prices significantly in the absence of any efficiency from combining the mines. The Department, nevertheless, decided not to challenge the merger because of substantial merger-specific efficiencies. The parties provided the Department with studies indicating that combining the two mining and processing operations would result in substantial efficiencies that could be achieved in no other way. To verify these claims, the Department hired a consulting mining engineer to conduct an independent study of both the benefits of combining the two operations and alternative means of achieving particular efficiencies. The independent study concluded that the parties' efficiency claims were conservative. Among other things, the study concluded that IMC would avoid substantial costs by transporting the Western-Ag ore through its mine to its processing plant at the mine mouth.

SES Astra/Premiere Digital Playout Center (2004)

Even if the German merger control does not provide for an explicit efficiency defence, the Bundeskartellamt weighs the positive and negative competition effects of the merger on the relevant markets affected. An example where the pro-competitive effects outweighed the anti-competitive effects is the clearance of the acquisition by SES Global Europe S.A. of all the shares in the DPC Digital Playout Center GmbH of the Premiere Fernsehen GmbH & Co. KG in December 2004.
The takeover affected the market for broadcasting satellite programmes as well as the pay TV end consumer market in Germany. SES Global operated the ASTRA satellite fleet in Europe and in particular provided transponder capacity to broadcasting service providers for the transmission of programmes via satellite to end consumers (DTH "direct to home"). DPC provided Premiere with intracompany technical services for pay TV (so-called digital platform: encoding, SmartCard management, set-top boxes).
The merger led to a strengthening of SES Astra's dominant position in the national market for DTH transponders. The strengthening of SES Astra's dominant position resulted from the vertical integration of the dominant satellite provider with the only service provider which was able to grant access to the Premiere set top boxes for satellite reception. Thus, two essential technical components of pay TV advance services were bundled under one provider.
However, the unbundling of the digital platform for pay TV from Premiere resulted in improved conditions of competition in the national pay TV market. So far, Premiere dominated the pay TV market and had sealed off the pay TV market by using proprietary encoding technology and a matching set top box infrastructure. With the merger, access to the established set top box infrastructure was provided by SES Astra, a company which is independent from Premiere. Thus, a significant entry barrier to the pay TV market was eliminated. According to the Bundeskartellamt's findings, the positive effects on the pay TV market outweighed the negative effects on the DTH transponder markets.

PWA Corporation / Wardair Inc. (1989-1990)

In January 1989, PWA Corporation, the parent of Canadian Airlines International Ltd. (CAIL), announced its proposed acquisition of Wardair Inc. The acquisition would have resulted, with few exceptions, in scheduled domestic airline service in Canada being provided solely by CAIL and Air Canada or their alliance partners. In March 1898, following the commencement of a comprehensive examination of the proposed acquisition, the Director informed Wardair that evidence in support of a search for alternative buyers was required. In March, 1989, the Director received an application by six Canadian residents and as a result, initiated a formal inquiry under section 10 of the Competition Act. Then Bureau concluded that the transaction raised serious concerns for competition in the domestic airline industry. The evidence established that the merger would result in the elimination of a vigorous and effective competition, that significant entry barriers existed and that there was little potential for foreign competition. Balanced against these negative factors was the financial situation faced by Wardair. Careful analysis of Wardair's financial situation indicated that it would likely fail within a matter of months. In considering the failing business factor under the Competition Act, two issues arose: the extent to which failure was, in fact, likely to occur; and, whether there were any likely alternatives to the merger that likely would be less restrictive of competition. During the course of the merger examination, no possible alternative merger proposals to the acquisition by PWA Corporation arose and accordingly the Bureau concluded that any anticompetitive effects arising in the market subsequent to the merger could not be attributed to the merger because there were no alternatives that would likely result in a more competitive environment.

Corporación Internacional de Aviación, S.A. de C.V. / Aerovías de México, S.A. de C.V. / Corporación Mexicana de Aviación, S.A. de C.V (1995)

In 1995, Cintra, Aeroméxico, and Mexicana notified an operation that involved Cintra purchasing the stock of Aeroméxico and Mexicana, giving Cintra control over the two other companies and their subsidiaries.

In 1993, Aeroméxico had acquired control over Mexicana, with the authorization of the Ministry of Communications and Transport of Mexico, before the Federal Economic Competition Law came into force. The worsening of the airlines' economic and financial situation led to their being taken over by creditor banks. Thus, when the notification was served, the banks held more than 60% of Aeroméxico's capital, which in turn, either directly or indirectly, controlled 54.6% of Mexicana's stock. Cintra was created at the initiative of the creditor banks in order to put Aeroméxico and Mexicana's finances back on a sound footing. Thus, following the acquisition, Cintra would strictly be a holding company. The corporate purpose of Cintra, in addition to solve the two airlines financial problems, involved acting as a common ground between both companies' shareholders and creditors and promoting the injection of fresh resources into the airlines. In other words, the operation would allow the corporate restructuring necessary to strengthen the two airlines and guarantee their survival. The operation implied no modifications to the vertical and horizontal integration of Aeroméxico and Mexicana.

The relevant market was restricted to that of regular cargo and passenger air transportation services, given the scant substitutability between air travel and other modes of transport. Since Aeroméxico and Mexicana have such a small participation in the international market, the relevant market was restricted to the Mexican territory.

In the analysis of the companies' power over the relevant market, the Federal Competition Commission of Mexico (FCC) took into consideration the effects observed within it during the years the two airlines had been associated. The airlines had a joint market share of 65.3% in terms of passengers transported. The FCC considered that to preserve the level of competition, the companies had to be kept separate.

The analysis of the relevant market and of the power of the economic agents involved led to the conclusion that competition would be affected by the weakening or disappearance of either Aeroméxico or Mexicana. The Commission therefore decided to allow their financial and

administrative restructuring in order for them to attain adequate levels of efficiency and for capitalized debts to be recovered.
The FCC did not object to the operation, but it imposed conditions on it, involving the observance of measures to prevent or correct anti-competitive aspects of the concentration.

California v. Sutter Health System (2001)

The state of California challenged the proposed merger of two hospitals in the San Francisco/Oakland area. The court rejected the challenge, holding that the merging parties had successfully established a failing firm defence. The court focused on the following facts to support its finding. First, the merging parties showed that the acquired firm faced a ''grave risk of business failure.'' The acquired firm met the bankruptcy definition of insolvency because (a) the fair market value of its assets was less than the value of its liabilities and (b) it could not assume more debt. The court also noted that the acquired firm's independent auditor refused to issue a ''clean'' opinion that the firm was a viable going concern. Second, based primarily on the testimony of the merging parties' financial expert, the court found that the likely outcome of a bankruptcy proceeding would be liquidation rather than reorganization. Third, the merging parties showed that the only reasonable alternative purchaser had failed to make a viable offer in response to ''repeated'' attempts by the acquired firm to solicit an offer. The court found that the potential alternative purchaser's ''vague expression of interest'' in the acquired firm was insufficient to ''elevate [it] to the status of a viable alternative purchaser.''

FTC v. Arch Coal, Inc. (2004)

In 2004, the FTC challenged the acquisition of Arch Coal, Inc. and Triton Coal, Inc. in the United States District Court for the District of Columbia. The merging parties raised as a defence that Triton Coal was a failing or flailing firm. The court explained that the burden to establish the defence to justify the merger was high: ''Indeed, financial weakness, while perhaps relevant in some cases, is probably the weakest ground of all for justifying a merger, and certainly cannot be the primary justification for permitting one.'' The court then stated that the failing firm defence required the following conditions (set forth in § 5.1 of the Horizontal Merger Guidelines): (1) the allegedly failing firm would be unable to meet its financial obligations in the near future; (2) it would not be able to reorganize successfully under Chapter 11 of the Bankruptcy Act; (3) it has made unsuccessful good-faith efforts to elicit reasonable alternative offers of acquisition of the assets of the failing firm that would pose a less severe danger to competition than does the proposed merger; and (4) absent the acquisition, the assets of the failing firm would exit the relevant market. The court summarily rejected the merging parties' claim that Triton Coal was a failing firm. The court, however, ultimately concluded that Triton Coal was a flailing firm. In particular, the court held that ''[t]he evidence establishes that [Triton Coal] faces high costs, has low reserves, has at best uncertain prospects for loans or new reserves, is in a weakened financial condition, and has no realistic prospects for other buyers.''
The court found that even though Triton Coal had not failed, its competitive significance in the market was overstated by its market share.

Synopsys / Avant! (UK / US 2002)

Synopsys, which had a 90% market share in 'front-end' software tools used to design microchips sough to merge with Avant!, which had a 40% share in a complementary product, "back-end" software tools (used to communicated with front-end tools). Both the US and UK authorities concluded that the merged firm would not have the incentive to foreclose Avant!'s competitors by denying them interoperability with the Synopsys tools. The UK decision gave weight to four factors: (i) designers might choose other solutions than the merged firm; (ii) there was a example of customers defeating an alleged foreclosure strategy by another firm in the industry (iii) Synopsys would have to close its interface with a range of product tools, not just those of Avant!, and thus place at risk its entire product range; and (iv) anti-competitive conduct could face consequences under non-merger antitrust law.

EDP / ENI / GDP (2004)

In the case EDP/ENI/GDP (2004), the European Commission analysed the competitive effects of the acquisition of Gás de Portugal (GDP), the incumbent gas company, by both Energias de Portugal (EDP), the incumbent electricity company, and ENI, an Italian energy company. This was a vertical merger in that gas is a significant input to the electricity sector, where gas-fired power plants take an important place in the production of electricity. Around 70% of the variable costs of a gas-fired power plant relate to the use of gas. In Portugal, EDP and GDP, as incumbents, held dominant positions pre-merger on the electricity and gas markets respectively.

The Commission considered that the merger would have resulted, first, in input foreclosure because the new entity would have had both the ability and the incentives to raise its rivals' costs, either by increasing its prices for gas supplies and/or by influencing other aspects of gas supply. The Commission also found that, by gaining access to sensitive information relating to its competitor's main input costs and daily nominations, EDP would have gained increased market power. Such information would have allowed EDP to increase its prices up to the level of its competitor's with no fear of losing sales.

Second, the Commission found that the merger would have led to customer foreclosure in that the merger would reduce independent demand for gas, which could otherwise have been challenged by potential competitors of GDP. This was mainly due to the fact that being able to sell to EDP was essential for a potential entrant to reach the minimum efficiency scale. The Commission determined that, post-merger, EDP's incentives would have been to get supplies from its subsidiary GDP, rather than to solicit competitive offers from potential entrants.

The Commission further found that the merger would have entailed significant horizontal effects by removing GDP as the best-placed potential competitor on the various electricity markets concerned (i.e. wholesale, retail and balancing power markets) and by removing EDP as the most likely entrant in the supply for gas.

Guinness/Grand Metropolitan (1997)

In the case Guinness/Grand Metropolitan (1997), the European Commission found that the parties, pre-merger, had dominant positions in the Greek markets for gin, rum and brandy. The Greek market was characterised by the presence of various suppliers, none of which was strong across all the categories of spirits. Commission was concerned that in such a context the merger would bring together "must-stock" brands in gin, brandy and rum and that the new entity would induce bars and supermarkets to purchase its portfolio of beverages on retailers with the effect of foreclosing competitors from bar outlets or retail space. In those market conditions, the combination of the most important spirits categories in one single supplier's portfolio was expected to enhance that supplier's market power in individual spirits categories.

Bayer / Aventis Crop Science (2002)

In the case Bayer / Aventis Crop Science (2002), the European Commission analysed the impact of the concentration on the various markets for crop protection products. One of the main problems in protecting crops from pests such as insects is the issue of resistance. Insects develop resistance against insecticides throughout time. From a biological standpoint, a broad product portfolio comprising active ingredients with different modes of action provides better resistance management, because a range of active ingredients with different modes of action can be rotated. Such active ingredients can therefore be seen as complements. As a result of the notified operation, the parties would have a broad range of active ingredients with different modes of action. The combined product portfolio would have comprised all chemical classes, and in particular the key active ingredients from the neonicotinoids and pyrazoles chemistry classes. In the Commission’s view, this would have rendered the parties' offering de facto indispensable, giving them the power to increase to foreclose competition and increase prices on individual products.