

Topics

Applying the Market Definition Guidelines of the European Commission

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In December 1997, more than seven years after the European Merger Regulation came into force, the European Commission published a formal Notice on market definition.¹ Market definition and the market shares that can be calculated once the market has been defined play a central role in European competition policy. The notification form for mergers states that post-merger shares which fall below 25 percent of a properly defined market will not generally give rise to fears of market dominance. In addition, under Article 86, the European Court of Justice (ECJ) has stated that market shares in excess of 50 per cent would create a presumption of dominance, and the Commission is seriously considering the use of market share thresholds when assessing vertical agreements under Article 85.²

The Notice claims to clarify the approach that the Commission has historically taken when defining markets, but in reality the rigorous approach set out in the Notice signals a substantial improvement on the methods which have often been used in the past. Notably, the Commission explicitly accepts the logic of using supply-side substitution to define a market, which is something it has been quite wary of in the past. In addition, the range of evidence that the Commission cites as having value in the market definition process goes well beyond the simplistic analysis of product attributes, price differences and perceived customer views, which is how many observers would characterise the Commission's previous attempts at market definition.

As long term advocates of a more formal and economically sound approach to market definition in European competition law, we welcome the publication of the Commission's Notice. Because market definition is a vital step in any competition analysis, it is pleasing to see that the framework adopted by the Commission is broadly consistent with contemporary economic analysis. In this respect, the Notice is another example of how economics is shaping the way European competition law is implemented. Moreover, transparency is critical in an area of policy where the authorities have wide discretion. Because market analysis cannot be distilled into simple formal rules, it is important to have openness regarding the framework within which that discretion is exercised.

However, we caution that applying the approach that is described in the Notice is not always straightforward. Economists have long recognised that whilst structural indicators of market power, such as market share, provide a convenient starting point for a market analysis, they have a highly imperfect relationship with market outcomes. Thus, one concern is that as greater confidence is expressed in the calculation of market shares, the caveats surrounding their use as indicators of market power will be lost.

Another concern is that the Notice is intended for use when investigating both mergers and monopoly abuse. However, the analytical framework outlined in the Notice offers little guidance if the issues being investigated concern conduct or business practices that may have already led to supracompetitive pricing. This is potentially problematic because the market boundaries that are relevant for a merger case are not necessarily the same boundaries that would be relevant for an Article 85 or 86 investigation. Practitioners familiar with the U.S. Horizontal Merger Guidelines, which were jointly issued by the Federal Trade Commission (FTC) and Department of Justice (DOJ) in 1992, will note that this is one of the important differences between the American approach and that adopted by the Commission. The U.S. Guidelines are intended only for cases involving horizontal mergers, not monopoly abuse.

Although there are differences between the Notice and the U.S. Horizontal Merger Guidelines in scope, the two approaches are very similar in terms of methodology. For instance, both sets of guidelines define a market as the smallest set of goods or services for which a small, permanent increase in price would be profitable. Similar approaches have been suggested in other jurisdictions and in other contexts, and this degree of global convergence is encouraging.³

In this paper, we begin by describing the basic principles that lie at the heart of the Commission's approach to market definition. We then discuss the potential uses and misuses of the Notice, including its application to non-merger cases and to differentiated products industries. As market definition is very much fact-specific, we also address some of the empirical issues that often arise when defining markets.

Principles of Market Definition

Identifying the *Relevant* Market

Firms may compete in a number of markets, which means that the objective of market definition is to identify the market that is relevant to the competition issues at hand. The possibility that a firm or product may be in more than one market and the possibility that the Commission may wish to define markets rather differently depending on whether it is analysing existing market power or the creation of market power suggests that the precedential value of past market definitions may be limited. For these reasons, the creation of a "directory of market definitions", as was recently suggested by a Commission official, would be of little value and possibly misleading.

One reason why markets are not unique is that the market which emerges from the application of the Notice depends on where one starts the process. Usually, the starting point for the exercise is clear - it will be the products of the parties under investigation which form the focus of the market definition exercise. For example, in contemplating the relevant market within which to analyse a merger, one would initially look at the products of the merging parties and, if appropriate, add to that group the products of other firms until a set of products was found that satisfied the market definition test. However, if one of the parties were to withdraw from the merger and instead were to seek to merge with a third firm, it is quite possible that the market that is relevant for the second case would be different from the one which was relevant in the first (see text box below).

Identifying the Relevant Market: Fruit Juices or Orange Flavoured Drinks?

Suppose one were looking at the supply of fresh orange juice and trying to define the appropriate market. Further, suppose that of those currently drinking fresh orange juice, a large percentage of customers would switch to other beverages in the event of a price rise. Of those who would switch, half would purchase other fresh fruit juices (eg grapefruit juice) and half would purchase other types of orange flavoured drink (eg carbonated orangeade).

Whilst it may not be profitable for a hypothetical monopoly supplier of fresh orange juice permanently to raise prices, it is possible that a profitable price increase might be achieved *either* by acquiring control of a firm which produced other fruit juices *or* by acquiring control of a firm which produced other orange flavoured drinks. It may therefore be valid to define the market as either *fresh fruit juices* or *orange-flavoured drinks*. Both could meet the market definition test as the smallest group of products whose prices could be increased by a hypothetical monopolist. The market definition that will be relevant will depend on the context of the analysis. If an orange juice manufacturer is acquiring a grapefruit juice manufacturer, then the relevant market might well be fresh fruit juices. If instead the firm to be acquired was in the business of selling carbonated orangeade, the relevant market might well be orange-flavoured drinks.

For a given product, the relevant market may also vary depending on whether the Commission is investigating existing market power (as in an Article 86 case) or the creation of market power (as in mergers). The problems associated with applying the Notice in the presence of existing market power - including the so-called cellophane fallacy - are discussed later in this paper. However, it is clear that the market which is relevant for assessing a merger involving an already dominant firm may legitimately be wider than the market which is relevant when investigating whether that firm has been abusing a dominant position.

For example, suppose one firm controlled the supply of all fresh fruit juices. If the firm is subjected to an Article 86 investigation on the grounds of market dominance, the relevant market may well be the supply of *fresh fruit juices*. However, if the firm were to attempt to acquire a supplier of other *orange-flavoured drinks*, it might be perfectly reasonable for the Commission to analyse the transaction in the context of a market defined as *fresh fruit juices and orange-flavoured drinks*, even though a market had previously been defined as *fresh fruit juices* for the purposes of the Article 86 investigation. The intuition for this is simple. Even if a monopolist had already raised the price of fresh fruit juice above the competitive level, it may be possible for prices to be raised even higher if it gained control of a market comprised of all *fresh fruit juices and orange-flavoured drinks*.

Demand and Supply-Side Substitution

Demand-side substitution occurs when customers switch their purchases from one supplier to another in response to a relative price change. This is often the most direct and immediate constraint on the behaviour of firms. However, one

cannot sensibly ignore supply-side substitution in carrying out competitive analyses. For example, it would be meaningless to think of a market for size 5 shoes even though customers cannot substitute size 5 shoes for size 10 shoes (see text box below).

An Example of Supply-Side Substitution: Is There a Market for Size 5 Shoes?

The reason it is appropriate to define a market for shoes (of all sizes) is not because some people would be prepared to buy ill-fitting shoes if prices changed, but rather because firms supplying one size of shoe can and do supply a range of sizes, and can quickly and cheaply switch their production lines from the manufacture of one size to the manufacture of another. The ability rapidly to direct productive assets from the manufacture of one kind of product to another, without incurring significant costs in the process, is termed supply-side substitution. It is this form of substitution which often leads to the inclusion of otherwise identical products of different sizes or colours in a single market when demand-side considerations would not lead to this conclusion.

Accordingly the Commission has chosen to consider supply-side substitution directly when defining markets.⁴ However, to be effective, supply-side substitution must be timely and it must occur without significant additional costs or risks in response to small and permanent changes in relative prices. Identifying these costs or risks and quantifying how much is “significant” will be a contentious issue. Where relatively little or no additional expenditure is needed to reconfigure a production line, alter a marketing strategy or hire or train additional staff, supply-side substitution can be as effective a competitive constraint as demand-side substitution. In such circumstances, it would be inappropriate to disregard supply-side substitution when defining the market. If, on the other hand, reconfiguration of a production line is technically feasible, but would take a long time and require the expenditure of relatively large and irrecoverable investments, it may be inappropriate to regard supply substitution as a competitive constraint of equal importance to demand-side substitution.

The Commission has decided that products that are supply-side substitutes should be included in the market when they act as a strong constraint on the behaviour of incumbent firms. Where new entry into the production of substitutable products is possible, but only after a significant delay or only after making investments of a non-trivial nature, the firms in question should be regarded as potential entrants and not as existing suppliers within the market. This is a sensible and useful clarification.

The Myth of Complete Interchangeability

According to the Notice, the Commission continues to view demand substitution as the more direct competitive constraint on pricing. However, one difficult issue is *how much* substitution is enough for two products to be deemed effective substitutes. In some past cases, the Commission appears to have required *complete* substitutability between two products before it was willing to conclude that they were in the same market.⁵ Of course, to be in the same relevant market it is not necessary for two products to be completely interchangeable in all of their applications or for all customers. All that is required is that there be a sufficient

proportion of customers who would switch a sufficiently large share of their purchases from one product to the other in response to an increase in price. Consequently, it is quite possible for two products to be in the same relevant market even if there are some customers who would never switch and even if there are no customers who would entirely switch their purchases from one product to the other. The example in the text box below illustrates the point.

An Example of the Extent of Substitution: Potato Crisps

Imagine two firms that manufacture salted potato crisps which are identical in every respect except that one firm fries in nut oil and the other fries in vegetable oil. Because there is no difference in taste between the two products, most customers see no difference between the two types of crisp and would readily switch between the two on the basis of price.

However, a small number of people are allergic to nuts. For these people, the two products cannot be substituted without risking a potentially fatal allergic reaction. However, it is impossible for the suppliers to distinguish those consumers who can switch (ie. those who are not allergic to nuts) from those who cannot (ie. those who are allergic). As a result, the manufacturer of crisps fried in vegetable oil cannot exploit its “monopoly” over the customers with nut allergy without losing the custom of the non-allergic.

Customers who can easily switch from one product to another and who would do so in response to a price increase are known as marginal customers, whilst those who are unlikely to do so (ie. the allergic customers in the example above) are termed infra-marginal customers. Infra-marginal customers are protected by the willingness of marginal customers to switch so long as there are enough marginal customers and so long as sellers cannot effectively identify the marginal from the infra-marginal customers.⁶

The example above implicitly assumes that customers make only one purchase from one supplier, but in many market circumstances, consumers purchase multiple products from a variety of manufacturers. The ability of these customers to switch just a portion of their total purchases from one product to another can be as effective in disciplining pricing as the complete switching of purchases by a few customers. This is an important point which has been missed in some previous decisions of the Commission. For example, some Commission decisions imply that retailers (ie. intermediate customers) have no power to harm suppliers of so-called “must stock” branded goods since they cannot wholly remove those products from their shelves. It would be a serious oversight to ignore the ability of retailers to reduce their purchases of “must stock” brands or simply to reduce the shelf space given to these brands.

Uses and Misuses of the Notice

Applying the Notice in Non-Merger Cases: the Cellophane Fallacy

The Notice states that the base price to be considered when evaluating customers’ responses to a small but permanent change in relative prices will be prevailing market prices. Although the Notice alludes to the so-called “cellophane fallacy,” a problem that is much discussed in the economic literature, it does not emphasise why the use of prevailing prices poses a very serious problem when applying the Notice’s methodology to cases which are brought under Article 85 or 86, where pre-existing market power is suspected.

Pre-existing market power and the supracompetitive prices which this implies is unlikely to pose a problem in merger analysis if competition policy (as it is under EC competition law) is aimed at preventing the creation of *additional* market power. Within the framework set out in the Notice, prevailing prices can generally be used with confidence in merger cases.⁷

However, the use of prevailing prices to define markets can cause considerable problems in an Article 86 case. This is because even a monopolist will probably be able to show that if it increased prices above existing levels, sales would be lost to rival suppliers.⁸ Based on the framework set out in the Notice, the market might be redefined to include some or all of those products to which customers would switch. Such an analysis would make it possible to understate or miss entirely the competitive harm posed by a dominant firm.⁹

It will be interesting to see how the Commission applies the methodology to cases arising under Article 85 and, in particular, Article 86, as it has stated it intends to do in the Notice. Unless the Commission finds a practical way to apply the framework to settings outside the realm of horizontal mergers, the claim that the Notice applies to Article 85 and 86 cases rings hollow.

Applications to Differentiated Products Industries

Economists have long recognised that structural indicators such as the level or change in the Herfindahl-Hirschman Index (HHI) or market share are not necessarily good measures of the likely competitive impact of a merger. A structural approach to competition policy has some basis in economic theory, but even so, this basis is greatest in the context of homogeneous product industries.

In applications involving highly differentiated products or companies distinguished by factors such as their location, product mix, or costs, the calculation of market shares and HHIs is less useful. First, the results of a market definition analysis can yield a false impression as to the competitive dynamics in a differentiated products industry. A structural analysis based on market shares often assumes that the only “effective” competitors are those firms that fall within the relevant market boundaries, whilst those who have been excluded are often assumed to have a negligible competitive impact on those suppliers that are in the market. Classifying firms as either “in” or “out” of the market would misrepresent competition in a differentiated products market, for such an approach fails to recognise that there may be a range of products that compete with varying degrees of intensity with the products under investigation.

Second, a firm’s market share does not necessarily reveal the degree to which that firm influences the pricing of other firms in the market. In the pure market share approach, the competitive significance of a firm is proportional to its market share. This is problematic in differentiated products industries where the primary concern is whether the merger would lead to higher prices for the products sold by the merging firms (also called “unilateral effects”) rather than generally higher prices through collusion or “coordinated interaction”. Because market shares need not reflect the degree of substitutability between one product and another, there is much greater interest in going beyond the broad structural measures of market concentration when the merging companies compete in a differentiated products setting.

As a consequence, in the U.S., there has been a movement away from market share calculations as a means of assessing the competitive impact of proposed mergers in differentiated products industries. In these cases, economists have been developing quantitative techniques that allow them to directly estimate or simulate the effects of a merger. For instance, models that have been widely cited include Werden and Froeb's (1994) antitrust logit model and the differentiated products analyses in Shapiro (1996) and Hausman, Leonard, and Zona (1994).¹⁰ In general, these methods yield estimates of a proposed merger's impact using pre-merger market prices, shares or profit margin information, a model that describes the nature of competition among the firms in the market, and a set of assumptions about the cost of production and consumer demand (eg the elasticity of demand and estimates of the cross-price elasticities of demand). Because these models directly address the issue of competitive effects, they are increasingly being used by the U.S. antitrust agencies where data permit.

The use of these models is notable for another reason. In some instances of differentiated products competition, the analysis may diminish the significance of the market definition exercise. Although many (but not all) of these models require some assumption about market definition, the resulting estimates of post-merger price increases may not be sensitive to the precise boundaries of the market. In the antitrust logit model, for example, market boundaries are defined, but the competitive influence of products "outside" the market is still explicitly accounted for.

Another issue that arises in differentiated products settings concerns supply substitution. Product repositioning and new brand development often make it difficult to identify supply substitutes. Brands often come and go, and it may be difficult to identify the ease of such entry and exit. For instance, in the case of a merger, an existing rival or a *de novo* entrant could introduce a brand near one of the merging brands if prices were to rise above competitive levels. In some cases, this can be accomplished through a change in marketing strategy; in other cases, design changes may be necessary.

Moreover, in some industries, the presence of large powerful customers means that supply substitutes need not even have their own manufacturing capacity. Many retailers, for example, have been able successfully to develop their own private label brands. Consider, for example, the success with which Sainsbury has introduced premium private label products in direct competition against well known brands such as Coca-Cola, Pampers and Kellogg's. Retailers are often overlooked as sources of supply substitution, but in many differentiated products settings, they are competitively important.

In summary, the inability of market shares to reveal the "closeness" of competition and the difficulty of identifying supply substitutes underscore the shortcomings of analysing competition among differentiated products using an approach that is largely or exclusively based on market definition and the analysis of market shares. In such markets, market definition remains an element of the analysis, and the Commission's guidelines consequently remain valuable, but it is important to recognise that their significance may be much reduced.

Evidence for Defining Markets

Usefully, the Commission Notice provides guidance on the types of evidence which it is likely to review in the market definition process. This evidence is very much the same as the information typically analysed by the U.S. antitrust agencies in their application of the U.S. Horizontal Merger Guidelines.

Sensibly, the Commission states that its analysis of product characteristics will be used solely as an initial step in seeking to determine the scope of products worthy of detailed scrutiny. Hopefully, this will mean the end of markets defined exclusively or largely on the basis of subjective statements about the inherent characteristics of the products under investigation.

The Notice places heavy emphasis on historical evidence. Barring fundamental changes in tastes, preferences or technology, analysis based on observed market transactions (when data are available) is likely to be more reliable than analysis based on interviews with or comments made by competitors and customers regarding their anticipated response to hypothetical market changes. Moreover, qualitative and quantitative data on recent market “shocks” can be as informative as historic price and sales data.¹¹ A number of quantitative techniques that could be used are briefly described in the Notice. Greater use of these by the Commission, where data are reliable and available, is already evident in recent practice and is further encouraged by the publication of the Notice.

Interpretation of Different Price Levels

One of the techniques discussed by the Commission is the analysis of price levels. In a number of past cases, the Commission has cited differences in price between two potentially competing products as seemingly conclusive evidence that they do not form part of the same market.¹² Whilst an analysis of price differentials may be useful in some cases, care must be exercised when interpreting this type of evidence.

Other than where products are perfectly homogenous, one would not have to see identical prices (unadjusted for differentiating factors) in order to conclude that the products are in the same market. Just as it would be wholly illegitimate to conclude that two products with identical prices were automatically in the same market - a packet of crisps and a first class stamp both cost 26p - it is no more valid to conclude that price differences necessarily imply an absence of competition between two products.

What matters for market definition is not only how the price levels of two products relate to each other, but how the volume of sales of each product would respond to a change in relative prices. This in turn depends on how the marginal consumers of each of the products would respond to any widening or narrowing of the price differential between them.

An Example of Price Differences and Market Definition: Coaches and Trains

For example, a coach service between London and Manchester may cost £15.00 and take 4 hours. The equivalent train journey may cost £25.00, but take only 2.5 hours. The existence of a 66 per cent price differential need not mean that train travel and coach travel between London and Manchester are not part of the same market. Any attempt by a hypothetical monopolist in the supply of train services to raise the price to £27.50 might result in the defection of a material number of passengers from train to coach. This would happen if significant numbers of people are willing to pay an extra £10 to save 1.5 hours on the train, but are unwilling to pay an extra £12.50 for the time saved. Again, it is the behaviour of the marginal customers that matters in determining whether a price rise will be profitable.

More generally, there are occasions where customers are prepared to trade off price against perceived product quality. The prices of products which are perceived as having higher quality, lower maintenance costs, or greater durability will include a premium for these superior attributes. Thus, it need not follow that a hypothetical monopoly supplier of these higher priced, but superior goods could profitably raise prices. Why? Because a widening of the price differential and an increase in the premium charged for greater quality, speed or durability may not be tolerated by a sufficient number of marginal customers for such a price rise to be profitable.

Interpretation of Competitors and Customers Views

The Commission also regards the views of customers and competitors as an important source of information for market definition. The insights of market participants are usually very informative. Marketing studies and consumer surveys that look at usage patterns and attitudes can often be helpful. Competitors will often prove to be a fruitful source of technical information on products and production processes, and customers may be able to identify hidden costs that might be incurred when switching from one product to another. However, care must be taken to ensure that the right questions are asked of third parties and that their testimony is not naively taken at face value.

As the Notice itself acknowledges, the term “market” may have commercial meanings in the industry which have little or no relationship with the economic concept of the “market” which is used in competition analysis. A competitor or customer may not have the information or perspective accurately to identify the smallest set of products whose prices could be profitably increased.

Interviews with competitors and customers are likely to be an effective way to develop the quantitative and qualitative data which the Commission can use to define the relevant market. Questions such as “how were imports of carbonated drinks from France affected by the devaluation of the sterling in 1993?” or “how were sales of SEGA Mega Drives affected by the introduction of Sony Playstations?” can be very informative. These questions will be more revealing than questions such as, “what, in your view, is the relevant market?” which has been asked of parties in the past. The Notice usefully guides the analyst towards these kinds of questions, and it is evident from recent Commission practice that questions to customers are now being better directed.

Whilst the Commission is rightly suspicious of the unsubstantiated views of the parties under investigation, it has tended to be less critical of the views of third party competitors, especially intervening parties in merger cases. This approach can be problematic as the interests of third party competitors are not necessarily coincident with customers and the promotion of economic welfare generally.¹³

The views of end users are crucial in evaluating any merger or business practice. In the past, the Commission has often relied on the testimony of intermediaries (eg retailers) to obtain this information. However, it is not always the case that the impact of a merger or practice will be the same for intermediaries as for final customers. Moreover, the views of final customers can often be obtained more directly through the use of appropriate survey instruments.

In trying to establish which products compete most closely with another product, it is common to look at the alternatives which consumers of that product could purchase if relative prices were to change. However, it is important to recognise that the next best choices of the marginal customers may be very different from the next best choices of the inframarginal customers. Thus, the Commission must be able to identify the marginal customers if it is to understand the consumers which provide the most direct constraint on the prices that firms charge.

Conclusion

We welcome the Commission's Notice because, in general, the approach which it advocates incorporates sound economic thinking and adds a much needed element of transparency in an area in which the Commission has considerable and inevitable discretion. It should certainly lead to the elimination of some common errors that are in many of the Commission's previous decisions. The breadth of evidence which the Commission states it will consider is much wider than the limited and sometimes superficial evidence on product characteristics, price levels and third party views which have been cited by the Commission in the past.

Welcome as it is, however, the publication of the Notice also calls for a note of caution. The application of the methodology contained in the Notice is not always straightforward and there may be problems in collecting and interpreting the evidential building blocks that are part of a comprehensive analysis of the market. There are also some very important difficulties associated with the use of the Commission's methodology, particularly in non-merger contexts. Moreover, market definition does not provide a neat and non-overlapping delineation of economic activity which is valid under all circumstances, even when the products involved are similar.

Finally, it should be remembered that market definition analysis is only the first step of a market analysis, even when the market is rigorously defined in accordance with the framework which is described in the Notice. In the end, market definition does not provide the definitive answer to all of the key questions that have to be addressed in a thorough competitive analysis, especially in differentiated product markets. If the Notice is to be used constructively it is important that these limitations, as well as the undoubted advantages, of its suggested approach are understood.

Endnotes

- ¹ Commission Notice on the definition of the relevant market for the purposes of Community competition law (97/C 372/03).
- ² Directorate General for Competition, *Green Paper on Vertical Restraints in EC Competition Policy*, 1997.
- ³ For example, see OFT Research Paper No.1, *Market Definition in UK Competition Policy*, 1993. This report, written by NERA for the OFT, provides a lengthy discussion of the concepts and tests used in market definition.
- ⁴ There is a subtle difference between this approach and the one described in the U.S. Horizontal Merger Guidelines, where supply substitution is not used to define the relevant market, but is instead used to identify market participants. However, whether supply substitutes are used to broaden the market definition or whether they are counted as participants in a more narrowly defined market, either approach, properly applied, should enable the analyst to identify the same set of competitive constraints.
- ⁵ For example, in *Mannesmann/Vallourec (Case No IV/M.906)* the Commission argues that seamless and welded tubes are in different product markets because "...in certain applications seamless tubes cannot be replaced by welded tubes...[this] leads to the conclusion that seamless tubes are a different relevant product market from welded tubes."
- ⁶ Even when identification is possible, it is not always true that effective discrimination can be practised, and there may still be only one market comprising both customer groups. For a discussion of the conditions under which discrimination may lead to a finding of separate markets see Hausman J., Leonard G. and Velluro C., *Market Definition Under Price Discrimination*, *Antitrust Law Journal*, Vol. 64, 1996.
- ⁷ There are some instances where acceptance of prevailing prices might cause harm, even in a merger. For instance, a cartel which was temporarily holding prices above the competitive level might be able to show that at prevailing prices, substitutes exist and that the market should be widened to a permit a merger between cartel members. This might stabilise and render permanent a cartel which might otherwise have collapsed.
- ⁸ A monopolist will already have raised prices if it were profitable to do so. A monopolist will only cease to raise prices once it has raised them to a level at which further increases in price will cause a significant loss of sales to rival products. These products will appear to be substitutes at the prevailing monopoly price, but would not have appeared to be so at the lower competitive price.
- ⁹ Ideally, one would attempt to assess what the responses to price changes would be if prevailing prices were initially at competitive and not monopoly levels.
- ¹⁰ Werden, Gregory J. and Luke M. Froeb, "The Effects of Mergers in Differentiated Products Industries: Logit Demand and Merger Policy," *Journal of Law, Economics & Organization*, Vol. 10, No. 2, 1994, p. 407-426; Shapiro, Carl, "Mergers with Differentiated Products," *Antitrust*, Spring, 1996, p. 23-30; Hausman, Jerry, Gregory Leonard, and J. Douglas Zona, "Competitive Analysis with Differentiated Products," *Annales D'Economie et de Statistique*, Vol. 34, April/June 1994, p. 159-180.
- ¹¹ In *Procter & Gamble/VPSchickedanz (Case No.IV/M.430)* evidence on the cross-elasticity of demand from past price and volume data persuaded the Commission that tampons and sanitary towels were separate product markets. The Commission was also influenced by observed market data which showed that entry of the *Always* brand of towel led to declines in the sales of other towels but not tampons.
- ¹² In *Orkla/Volvo (Case No.IV/M.582)* the Commission decided that beer was a different market from wine because an equivalent volume of beer was one-quarter of the price of a bottle of wine at the retail level and that carbonated soft drinks (CSDs) and beer were not substitutes because beer was 40% more expensive than an equivalent volume of CSDs. The only other evidence on this point was a discussion of the qualitative characteristics of the products. Also, in *Mannesmann/Vallourec (Case No IV/M.906)* the Commission supported its contention that seamless and welded tubes were separate product markets largely on the basis of price differences that ranged between 20% and 50%.
- ¹³ In fact, competitors can often have diametrically opposed interests to those of customers. Competitors often suffer where a benign merger lowers the costs of the merging firms, but creates no market power. Conversely, competitors will often benefit from a merger which creates market power and leads to higher prices for consumers.

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