Application of the Nonhorizontal Merger Guidelines

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On November 28, 2007, the European Commission adopted its first nonhorizontal merger Guidelines as part of DG Competition's implementation of a wider effects-based analysis framework following criticism by the European courts. The Guidelines underscore first that nonhorizontal mergers have significant scope for efficiencies and second that the Commission's analysis should focus on whether a transaction is likely to lead to anticompetitive foreclosure, i.e., foreclosure leading to consumer harm. This article reviews the Commission's application of the Guidelines since their adoption and suggests that the Guidelines have helped focus the Commission's analysis on the key questions for the assessment of the effects of nonhorizontal mergers on consumers. The review of recent cases presented in this article shows that the Guidelines provide a flexible framework within which both qualitative and quantitative economic analysis can be carried out in order to distinguish between pro- and anticompetitive mergers. Although the Guidelines are not binding from a legal point of view, this article also observes that they have served as an effective internal commitment mechanism for DG Competition.

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AUTHOR'S NOTE: *The views expressed in this article are solely mine and do not necessarily reflect those of the European Commission or any other Commission official.*

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I. INTRODUCTION

On November 28, 2007, the European Commission adopted its first nonhorizontal merger guidelines (the Guidelines).[1] The Guidelines underscore the primary difference between nonhorizontal and horizontal mergers: nonhorizontal mergers do not entail a direct loss of competition between the merging parties,[2] and such mergers have a large scope for efficiencies.[3] The Guidelines also underscore that foreclosure of competitors is not in itself a source of concern; rather, the relevant question is whether the transaction under review is likely to lead to anticompetitive foreclosure, i.e., foreclosure leading to consumer harm.[4] The Guidelines were implemented in response to criticism by the General Court and the Court of Justice of the European Union of earlier Commission decisions[5] and are part of DG Competition's implementation of a wider effects-based analysis framework.[6]

This article reviews the Commission's application of the Guidelines in nonhorizontal mergers in the two years since their adoption. This review suggests that the Guidelines have helped focus the Commission's analysis on the key questions for the assessment of the effect of nonhorizontal mergers on consumers. In this regard, the Guidelines have played a positive role in communicating how the Commission assesses cases, in order to ensure transparency and to ease the interaction with outside parties. But perhaps more importantly, and although the Guidelines are not binding from a legal

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1 Guidelines on the Assessment of Nonhorizontal Mergers under the Council Regulation on the Control of Concentrations between Undertakings, O.J. (C 265) 6–25 [hereinafter Guidelines].

2 *Id.* at 12.

3 *Id.* at 13.

4 *Id.* at 18.

5 *See, e.g.*, Case C-12/03 P, Comm'n v. Tetra Laval BV, 2005 E.C.R. I-987, and Case T-210/01, Gen. Elec. v. Comm'n, 2005 E.C.R. II-5575.

6 As indicated for instance by the adoption of horizontal merger guidelines, Guidelines on the Assessment of Horizontal Mergers under the Council Regulation on the Control of Concentrations between Undertakings, 2004 O.J. (C 31) 5–18, and supported by the creation of the Chief Economist Team within DG Competition.

point of view,[7] this article observes that they have also served as an effective internal commitment mechanism for DG Competition.

This article is structured as follows. Section II introduces the theories of harm set out in the Guidelines and highlights the main trends in their application in recent nonhorizontal mergers. Section III examines how efficiencies were dealt with in post-Guidelines cases. Section IV examines how the framework for assessing nonhorizontal mergers set out in the Guidelines has been applied in practice, while section V highlights a few issues of particular relevance in nonhorizontal mergers.

II. POSSIBLE ANTICOMPETITIVE EFFECTS OF NONHORIZONTAL MERGERS

While the Chicago school long ago established that under certain assumptions a monopolist cannot increase its profits by leveraging its monopoly power into another market, more recent industrial organization models have also indicated that nonhorizontal mergers may in specific circumstances lead to anticompetitive effects.[8] Against this background, it is clear that one needs to establish which of the (restrictive) assumptions of the one–monopoly profit theorem are violated before even considering the possibility of harm.

Moreover, given that the economic literature has established that nonhorizontal mergers may give rise to a wide range of efficiencies,[9]

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[7] Guidelines, *supra* note 1, at 8.

[8] *See, e.g.*, Oliver Hart & Jean Tirole, *Vertical Integration and Market Foreclosure*, *in* BROOKINGS PAPERS ON ECONOMIC ACTIVITY, MICROECONOMICS 205 (Martin Neil Baily & Clifford Winston eds., 1990); Jay P. Choi & Sang-Seung Yi, *Vertical Foreclosure with the Choice of Input Specifications*, 31 RAND J. ECON. 717 (2000); Yongmin Chen, *On Vertical Mergers and their Competitive Effects*, 32 RAND J. ECON. 667 (2001); and Volker Nocke & Lucy White, *Do Vertical Mergers Facilitate Upstream Collusion?*, 97 AM. ECON. REV.1321 (2007).

[9] In particular, nonhorizontal mergers may give rise to efficiencies by eliminating double marginalization, *see, e.g.*, JEAN TIROLE, THE THEORY OF INDUSTRIAL ORGANIZATION 174–75 (1988), or by reducing transaction costs. *See, e.g.*, Oliver Williamson, *The Vertical Integration of Production: Market Failure Considerations*, 61 AM. ECON. REV. 112 (1971), Sanford J. Grossman & Oliver Hart, *The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration*, 94 J. POL. ECON. 691 (1986).

which are observed empirically,[10] any guidance for the assessment of nonhorizontal mergers needs to provide a framework covering not only the possible anticompetitive effects but also the procompetitive effects of nonhorizontal mergers. This section sets out possible anticompetitive effects arising from nonhorizontal mergers, while section III discusses efficiencies resulting from nonhorizontal mergers.

A. Possible theories of harm

Informed by the extensive literature on vertical integration, the Guidelines set out two main ways in which a nonhorizontal merger may lead to anticompetitive effects. First, noncoordinated effects may arise, mainly as the result of foreclosure. In particular, vertical mergers may lead to input and customer foreclosure.[11] The Guidelines also discuss the specific conditions under which conglomerate mergers may lead to anticompetitive effects through tying and bundling practices.[12] Second, a nonhorizontal merger may significantly impede competition if it leads to coordination among firms to increase prices, or if it makes pre-existing coordination among firms easier, more stable, or more effective.[13]

Following the Guidelines, there is no doubt that the Commission must develop a well-articulated theory of harm that fits the facts of the case. Developing and testing the possible mechanisms that may lead to anticompetitive effects in nonhorizontal mergers may require significant work in some instances, as illustrated in the Commission's

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[10] *See, e.g.*, Francine Lafontaine & Margaret Slade, *Vertical Integration and Firm Boundaries: The Evidence*, 45 J. Econ. Literature 629 (2007).

[11] Another possible theory of harm could be described as "restoring monopoly power," whereby an upstream supplier who is unable to commit to its customers that it will not sell at lower prices to their rivals, i.e., facing a commitment problem à la Hart and Tirole, may be helped by vertical integration to overcome this commitment problem (since expanding input sales post-integration would also harm its own downstream division) and exploit its market power. *See* Guidelines, *supra* note 1, ¶ 44 at n.5.

[12] Guidelines, *supra* note 1, at ¶¶ 92–121.

[13] Guidelines, *supra* note 1, at 19.

assessment of the *Google/DoubleClick* merger,[14] one of the first cases following adoption of the Guidelines.

In *Google/DoubleClick*,[15] the main nonhorizontal theory of harm examined concerned the potential leveraging by Google of DoubleClick's leading position in ad serving in order to become, through AdSense, the dominant intermediation platform for online advertisement.[16] In particular, the Commission investigated whether the combined entity would likely increase the price or decrease the quality of DoubleClick tools when used with competing ad networks, tie or bundle DoubleClick software with AdSense, or manipulate the ad serving software to the benefit of AdSense in order to attract more publishers and advertisers to AdSense, ultimately leading to a "tipping" effect that would marginalize rival networks. A critical part of the market investigation in this case was to factually check a number of assumptions on which these theories of harm relied, such as the market power of DoubleClick and the extent of switching between ad serving suppliers, the importance of ad serving as an input for display advertising, the impact of ad serving prices on the choice of ad network by publishers/advertisers and the importance of network effects. It was only after an in-depth analysis of all these elements that the Commission was able to consider that the merger was unlikely to lead to anticompetitive effects and unconditionally cleared the transaction.

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[14] Case COMP/M. 4731, Google/DoubleClick (2008).

[15] Google's activities in online advertising covered the sale of online space on its Web site and the sale of intermediation services for online advertisement through AdSense, while DoubleClick was a leading provider of ad serving technology used to deliver (mostly) display ads to publishers and advertisers.

[16] The Commission also investigated whether Google might have leveraged its position in the search engine market to extend its market power in ad serving by bundling search ad services with ad serving tools. Given that both parties had few common customers and that gross margins in search were significantly higher than margins in ad serving, the Commission concluded that Google would not risk losing its higher margins on search ads to gain a few additional ad serving customers and hence dismissed this theory of harm.

B. Main theories of harm examined by the Commission

Table 1 in the appendix lists a number of cases with nonhorizontal aspects that were investigated by the Commission following the adoption of the Guidelines. As can be seen in the table, most of the nonhorizontal mergers reviewed following the adoption of the Guidelines were cleared unconditionally by the Commission (as far as nonhorizontal effects are concerned), though some of them required substantial analysis. Obviously, this list is skewed toward cases that were subject to substantial analysis and does not pretend to include all cases in which potential nonhorizontal effects were considered briefly or at an early stage.[17]

The table also indicates that input foreclosure was the key element considered in all nonhorizontal merger cases that led to in-depth investigations or to remedies since the Guidelines were adopted. Although the possibility that a vertical merger may lead to coordination was recognized in some cases,[18] it was not retained as a key cause of concern in the cases examined so far. In addition, conglomerate effects were examined in a few cases, but the Commission concluded that they would not lead to any anticompetitive effects in each of these cases.

III. EFFICIENCIES

The Guidelines emphasize that a transaction raises competition concerns if it is likely to lead to increased prices for end consumers,

[17] Therefore, the cases reported in the table and for which nonhorizontal effects were dismissed without remedies in phase I should be seen as examples of the application of the Guidelines, rather than forming part of an exhaustive list of such cases.

[18] For example, in Case COMP/M.4854 TomTom/TeleAtlas (2008), the Commission recognized that, on the one hand, vertical mergers may increase the scope for coordination by decreasing the opportunities for the integrated company to deviate from a collusive agreement, while on the other hand, vertical integration diminishes the scope for retaliation. *See* Nocke & White, *supra* note 8, and Guidelines, *supra* note 1, at 90). Anticompetitive effects may also result from a series of vertical mergers. *See* Johan Hombert, Jérôme Pouyet & Nicolas Schutz, *Anticompetitive Vertical Merger Waves* (Ecole Polytechnique, Centre National de la Recherche Scientifique Working Paper, Aug. 2009), *available at* http://hal .archives-ouvertes.fr/docs/00/44/01 /43/PDF/2009-55.pdf.

which need to be assessed in light of the efficiencies brought about by the merger.[19] In essence, possible negative effects on competition need to be considered with the efficiencies substantiated by the parties in order to determine whether any anticompetitive effect is expected to arise as a net result of the transaction.

The Guidelines highlight that nonhorizontal mergers provide substantial scope for efficiencies for two main reasons. The first source results from the complementarity of the parties' products or services.[20] Following a vertical merger for instance, the integrated company will realize that decreasing downstream prices will also increase its upstream demand, thereby giving it an additional incentive to decrease prices and increase output compared to a firm active only in the downstream market. This effect is usually referred to as the elimination of double mark-ups (or double marginalization).

A second source of efficiencies is the reduction in transaction costs brought about by nonhorizontal mergers, which results, for example, in "better co-ordination in terms of product design, the organisation of the production process, and the way in which the products are sold."[21] The parties' incentive to invest in new projects, production processes, or marketing may be better aligned post-transaction.[22] The Guidelines also indicate that "mergers which involve products belonging to a range or portfolio of products that are generally sold to the same set of customers (be they complementary products or not) may give rise to customer benefits such as one-stop-shopping."[23]

The following section gives specific examples of how these different types of efficiencies were dealt with in recent cases. These cases not only demonstrate that the Commission has been paying great attention to efficiencies in nonhorizontal mergers, but they also highlight some of the practical questions encountered by the Commission when assessing efficiencies.

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[19] Guidelines, *supra* note 1, at 52.

[20] *Id.* at 13, 55.

[21] *Id.* at 14.

[22] *Id.* at 57.

[23] *Id.* at 14.

A. Elimination of double marginalization

Post-Guidelines decisions have acknowledged that the elimination of double marginalization is a direct result of profit maximization and hence is an important element to consider in the assessment of nonhorizontal mergers.

This was mentioned, for example, in *Itema/BarcoVision*.[24] The proposed operation raised vertical concerns as BarcoVision supplied sensors that were used as an input for the winders produced by Itema, a manufacturer of textile machinery, and its competitors. The main theory of harm that was considered in this case was input foreclosure, according to which the merged entity would restrict the conditions under which Itema's downstream competitors would have access to sensors for winders, thereby raising its rivals' costs and increasing the price charged to consumers. In its assessment of the likely impact of the transaction, the Commission fully integrated the elimination of double marginalization. In particular, the Commission illustrated the likely effects of the transaction with a simple Bertrand model of competition (where downstream suppliers face a linear demand for their product depending on their own price and their competitor's price), in which the integrated company factored in the marginal cost of the input in its profit maximization decision, hence eliminating double mark-ups.

The elimination of double mark-ups was also examined in detail in *TomTom/TeleAtlas*.[25] The merger between TomTom and TeleAtlas was also an example of backward integration, where a downstream manufacturer (TomTom) acquired one of its input providers (TeleAtlas). TomTom was a leading supplier of Portable Navigation Devices (PNDs) and navigation software, while TeleAtlas provided navigable digital map databases. Besides TeleAtlas, there was only one other company, Navteq, which supplied navigable digital maps with a similar level of precision, attributes, and geographic coverage. The proposed operation raised vertical concerns as navigable digital databases constitute an essential input for the production of PNDs.

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[24] Case COMP/M. 4874, Itema Holding/BarcoVision Division (2008).

[25] Case COMP/M. 4854, TomTom/TeleAtlas (2008).

The decision acknowledged that the vertical integration of TomTom and TeleAtlas would allow the merged entity to internalize the double mark-ups resulting from both parties' setting their prices independently premerger, thereby allowing the merged entity to profitably expand output on the downstream market. In fact, the Commission estimated that the transaction would likely lead to a small decrease in average PND prices as a result of the internalization of double mark-ups by the merged entity. The *TomTom/TeleAtlas* decision also considered that the efficiencies created by the elimination of double marginalization were merger-specific,[26] as it appeared unlikely that the same effects could be obtained through the use of nonlinear pricing. In particular, the Commission reviewed existing contracts between map database providers and PND manufacturers and concluded that, although volume discounts were standard practice in the industry, these discounts were too limited to substantially remove the double marginalization problem in this case, given that the marginal cost of a map database is close to zero.[27]

Similar reasoning was adopted in *Nokia/Navteq*.[28] This case concerned the acquisition of Navteq, which licenses navigable digital maps, by Nokia, which is active in the supply of mobile phone handsets. As in *TomTom/TeleAtlas*, this operation raised vertical concerns as Navteq supplied navigable digital maps, which were used as an input for the mobile phone handsets with navigation capabilities produced by Nokia and other mobile phone manufacturers.[29] The

[26] In this respect, the Guidelines indicate that "the problem of double mark-ups is not always present or significant pre-merger, for instance because the merging parties had already concluded a supply agreement with a price mechanism providing for volume discounts eliminating the mark-up" and that "[t]he efficiencies associated with the elimination of double mark-ups may thus not always be merger specific because vertical cooperation or vertical agreements may, short of a merger, achieve similar benefits with less anti-competitive effects." Guidelines, *supra* note 1, ¶ 55 at n.7.

[27] *TomTom/TeleAtlas*, recital 241.

[28] Case COMP/M. 4942, Nokia/Navteq (2008).

[29] This case shared a number of similarities with the acquisition of TeleAtlas by TomTom. The upstream market was identical in both cases, and although the downstream markets were different—PNDs for TomTom and

main theory of harm that was considered in this case was input foreclosure, according to which the merged entity would restrict the conditions under which Nokia's downstream competitors would have access to maps, thereby raising its rivals' costs and increasing the price charged to consumers. Following an in-depth investigation, this case was cleared unconditionally as it was considered that the integrated company would lack the incentive to foreclose its downstream rivals. As in *TomTom/TeleAtlas*, the *Nokia/Navteq* decision indicates that the elimination of double mark-ups is particularly relevant given that gross margins are high for map databases.[30]

B. Reduction of transaction costs

The Commission has shown that, following the Guidelines, it was willing to look in great detail at the possible reduction in transaction costs and more efficient production process that a nonhorizontal merger may lead to.

For example, in *TomTom/TeleAtlas*, the parties argued that the transaction would improve TeleAtlas's map generation process by using data collected by TomTom. Although difficulties arose with respect to the quantification of these efficiencies, the Commission

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mobile handsets for Nokia—in both cases TomTom and Nokia were the leaders in their respective markets in the European Economic Area (EEA), with market shares of similar magnitude. One major difference between the two cases however was that navigable digital maps are not as essential for mobile handsets as for PNDs, whose primary function is navigation. On the contrary, navigation capabilities are only one factor among many others that determine the choice of a mobile handset. For instance, consumer surveys indicated that other characteristics, such as the presence of a camera, connectivity, and music features are much more important elements in determining the choice of a handset than navigation capabilities. In addition, a large number of location-based services (LBS) can be provided without relying on navigation, such as maps and city guides, friend-finders, and local search. No concern arose for LBS services that do not rely on navigation since nonnavigable maps can be obtained from other sources, such as government agencies, and barriers to entry for the supply of nonnavigable maps are extremely low, as they do not require operating a fleet of dedicated vans to capture navigation attributes.

[30] *Nokia/Navteq*, recital 365.

acknowledged that the proposed operation would likely improve map quality beyond what could be achieved through contractual means absent the merger.

The Commission considered whether such an effect would be merger-specific in light of transaction costs, incomplete contracts, and investment specificity. In particular, the Commission considered that the investments necessary to bring about the above-mentioned efficiencies could be, in the absence of the merger, subject to opportunistic behavior by one of the parties since these investments appeared, to a large extent, valuable only if used with a specific party.[31] In addition, the Commission considered that full contractual protection against this risk could not be achieved given the difficulty in specifying all necessary investments upfront and the inherent uncertainties about future market conditions in this rapidly evolving industry. Therefore, the Commission considered that although this data could possibly be exchanged between the parties through contractual means, the nonintegrated companies were unlikely to invest to the same extent as the integrated company in the joint improvement of map quality.

Recent cases have also acknowledged that efficiencies can result from a reduction of transaction costs for consumers. *Posten AB/Post Danmark A/S*[32] is a case in which this procompetitive effect was recognized. The case concerned a merger between Swedish and Danish postal operators, which was cleared in phase I of analysis, with remedies to address horizontal concerns in the Danish domestic standard business-to-business parcel market. In addition, the Commission investigated potential conglomerate effects linked to Posten's ownership of Strålfors, a printing and enveloping company in Denmark, and the mail distribution services of Post Danmark. Potential anticompetitive foreclosure on both the mail distribution and printing and enveloping markets were examined, but each was considered unlikely given the low barriers to entry and low switching

[31] This refers to the possible hold-up problem, according to which one party does not engage in an activity due to the fear of becoming the captive of its partner and losing all bargaining power.

[32] Case COMP/M. 5152, Posten AB/Post Danmark A/S (2009).

costs, the availability of strong competitors in printing and enveloping, and the possibility of counterstrategies. Further, the decision indicated that the integration of Strålfors with Post Danmark might actually benefit consumers as it would create efficiencies through, for example, one-stop shopping, which could lead to lower prices and improved services to customers.[33]

C. *Possible absence of efficiencies*

Although the Commission has been open to considering and accepting efficiencies in nonhorizontal mergers since the adoption of the Guidelines, efficiency claims need to be backed by solid evidence. While substantiated efficiencies may play a strong role in achieving a phase I clearance or a clearance without remedies, not all nonhorizontal mergers lead to significant efficiencies.[34] The absence of efficiencies is one important factor that may tilt the balance toward the initiation of a phase II investigation or the imposition of remedies.

This was the case, for example, in *IPIC/MAN Ferrostaal*,[35] in which the divestment of MAN Ferrostaal's shareholding in Eurotecnica, the only independent supplier of licenses and related engineering services for high grade melamine production technology, was imposed because IPIC controlled AMI, a leading producer of high grade melamine.[36] The Commission considered that if both companies belonged to the same group, the combined entity would not have the incentive to grant licenses for the production of high grade melamine to third parties. It was further considered that not granting new licenses would likely result in consumer harm since capacity expansion by nonintegrated companies and new entry could be blocked by AMI, which would impact prices in a growing market with limited spare capacity, while the possible efficiencies resulting from the transaction were considered unlikely to be significant.

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[33] *Posten AB/Post Danmark A/S*, recital 28.

[34] *See*, *e.g.*, Guidelines, *supra* note 1, ¶ 55 at n.7.

[35] Case COMP/M. 5406, IPIC/MAN Ferrostaal (2009).

[36] This merger also had a horizontal aspect as both Eurotecnica and AMI own technologies for the production of high grade melamine.

Indeed, AMI used a distinct technology for its production of high grade melamine and would not rely on Eurotecnica's technology post-transaction. In essence, this lack of efficiencies derived from the fact that the merger could be classified as diagonal, i.e., a merger in which a company purchases an input that is used by its competitors, but that it doesn't use itself.

IV. PRACTICAL IMPLEMENTATION OF THE GUIDELINES' FRAMEWORK

The general framework proposed by the Guidelines for analyzing nonhorizontal mergers has three steps. The Commission assesses first whether the combined entity would have the ability to foreclose its rivals, second whether it would have an incentive to do so, and third, whether such a foreclosure strategy would lead to price increases and consumer harm on the downstream market. The Guidelines also indicate that in practice, these three steps may be examined together as they are closely linked.[37]

This section reviews how this general framework has been applied in practice in recent nonhorizontal mergers.

A. Examples of cases cleared due to a lack of ability to foreclose

In many cases, possible nonhorizontal concerns were dismissed at an early stage as the Commission considered that the combined entity would not have the ability to foreclose its competitors. This section discusses a few such examples, concerning both vertical and conglomerate effects.

ABF/Azucarera[38] was an example of a case in which vertical concerns were dismissed in phase I because the merged entity would lack the ability to foreclose its competitors. ABF was active in, among other things, yeast and sugar production, while Azucarera produced sugar and sugar derivatives (including molasses) from sugar beets. In addition to its investigation on horizontal issues, the Commission investigated

[37] Guidelines, *supra* note 1, at ¶ 32.

[38] Case COMP M. 5449, ABF/Azucarera (2009).

whether two vertical links between the parties could lead to anticompetitive concerns. First, the Commission investigated whether the merged entity would have the ability to foreclose its competitors active in the production of cane sugar from supplies of cane raws produced by ABF, an input in the production of cane sugar. This was considered unlikely given the existence of a number of alternatives for sourcing of cane raws. Second, the Commission investigated whether the merged entity would have the ability to foreclose its competitors active in yeast production from supplies of molasses, a by-product of sugar used as an input for yeast production. This was considered unlikely given that there are a number of viable alternative sources to Azucarera's molasses, on which ABF's competitors in yeast production could rely.

Pernod Ricard/V&S[39] was another case in which conglomerate concerns were dismissed because the merged entity would lack the ability to foreclose its competitors. This case concerned the acquisition of Swedish state-owned wine and spirits company V&S by French alcoholic beverages company Pernod Ricard. The main rationale for the transaction was the acquisition of the flagship V&S brand *Absolut* by Pernod Ricard. In addition to a detailed analysis of horizontal overlaps and market definition issues, the Commission examined the possibility of conglomerate effects in this case and concluded, following the Guidelines, that it was unlikely that the proposed transaction would lead to any anticompetitive effect resulting from the combination of Pernod Ricard and V&S's portfolios. In particular, the Commission considered that the combined entity would not have the ability to foreclose its competitors as it would continue to face strong competitors in the sale of alcohol products, some of which also own vodka brands with a high degree of recognition.[40]

Posten AB/Post Danmark A/S[41] was another example where conglomerate effects were dismissed due to the lack of ability to

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[39] Case COMP/M. 5114, Pernod Ricard/V&S (2008).

[40] The Commission also noted that the merged entity would lack the incentive to engage in anticompetitive foreclosure as many retailers could retaliate against unjustified changes in their terms of supply by, for example, delisting brands.

[41] Case COMP/M. 5152, Posten AB/Post Danmark A/S (2009).

foreclose given low barriers to entry and low switching costs, the availability of strong competitors in printing and enveloping, and possible counterstrategies. In particular, the decision considered that competitors in printing and enveloping could combine their efforts with other mail distribution suppliers, such as Posten Norge, as an alternative to the merged entity.

B. *Incentive to foreclose*

The Guidelines indicate that the merged entity's incentive to foreclose depends on whether such a strategy would be profitable, taking into account its effect on both the upstream and downstream activities of the integrated company.[42] In vertical cases, the merged entity faces a trade-off between the profits lost on the upstream market and the profit gains that a foreclosure strategy may bring in the downstream market. The extent to which a foreclosure strategy would be profitable thus does not depend only on the relative profits earned in each market, but also on the total sales the merged entity would be able to capture on the downstream market.[43] A similar trade-off arises for possible foreclosure strategies linked to tying and bundling in conglomerate cases.[44]

Such a profit trade-off can be assessed in different ways depending on the available information. If sufficient data is available, some of the key parameters for this assessment can be estimated econometrically. For example, in *TomTom/TeleAtlas* and *Nokia/Navteq*, downstream elasticities were estimated on the basis of a discrete choice demand system (nested logit)[45] in order to determine the

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[42] Guidelines, *supra* note 1, at ¶ 40.

[43] *Id.* ¶ 42.

[44] *Id.* ¶ 105.

[45] For more detail on the demand system estimation, see Raphaël De Coninck, *Economic Analysis in Vertical Mergers*, COMPETITION POL'Y NEWSLETTER, 2008-3, at 48. The nested logit model was estimated with retail data covering monthly sales and volumes of PNDs (in the case of *TomTom/TeleAtlas*) and of mobile handsets (in *Nokia/Navteq*). The data set used was at the stock-keeping unit level, covered a period of three years, and contained a series of variables describing each device's characteristics, such

amount of sales the merged entity would be able to capture downstream if it were to carry out an input foreclosure strategy.[46]

Using these econometric estimates and industry data on prices, margins and sales, the Commission calculated whether the sales that the merged entity could capture downstream by raising its rivals' costs would be sufficient to compensate for the lost sales upstream if it engaged in input foreclosure. In particular, the Commission calculated the critical price increase by the remaining upstream supplier that would make a foreclosure strategy profitable for the merged entity. In both *TomTom/TeleAtlas* and *Nokia/Navteq*, given in particular the small share of the map cost in the PND price and the relatively limited cross-price elasticities downstream, the critical price increase was greater than 200%. Such a price increase by the integrated company's upstream competitor appeared unrealistic, in particular as it might trigger entry.[47]

In the absence of robust and reliable econometric estimates of elasticities, other indications can be used as proxies, in conjunction with other qualitative evidence. For example in *Itema/BarcoVision*, in order to approximate the volume of sales that the merged entity could capture by raising its rivals' costs, own-price elasticities were calibrated using the Lerner index, while a wide range of possible diversion ratios were considered in combination with these calibrated

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as the presence of an MP3 player, the presence of Bluetooth, and the size and format of the screen. The nest structure of the base specification was defined on the basis of a premium and nonpremium segmentation in *TomTom/TeleAtlas* and on whether or not the mobile handset was GPS-enabled in *Nokia/Navteq*.

[46] These elasticities for each product could be used to measure the impact on the merged entity's downstream sales of a percentage price increase by its downstream competitors. In *TomTom/TeleAtlas*, for example, the results indicated that, if all PNDs except Garmin (who was protected by a very long-term contract with Navteq) increased their prices by ten percent, TomTom's sales would increase in the range of three to five percent. Numerous robustness tests were carried out, in particular with respect to the definition of nests, choice of instruments, and total market size.

[47] A new entrant could recoup its investment by capturing a relatively limited market share. Indeed, it was calculated that, as the market for digital maps was growing, the minimum viable scale for a new entrant was relatively limited, even at current prices.

own-price elasticities in order to proxy for cross-price elasticities. In this case, the available evidence suggested that the critical price increase by the upstream competitor would also be high and appeared unlikely given the threat of vertical integration by customers.

Even in phase I investigations, first indications with respect to this profit trade-off can turn out to be quite informative. For example, in *IPIC/MAN Ferrostaal*,[48] it was calculated that even a small increase in prices in the downstream market would make it profitable for the merged entity not to grant new licenses, given the large presence of AMI on the downstream market, which was one of the elements considered in concluding that, as a result of the transaction, the combined entity would not have the incentive to grant licenses for the production of high grade melamine to third parties.

More generally, the Guidelines point to key qualitative elements for determining whether the integrated company will have an incentive to foreclose its competitors, so that a detailed calculation of this profit trade-off is not always required. For example, in *WPP/TNS*,[49] vertical concerns were dismissed in part on the basis of a qualitative analysis suggesting that the combined entity would not have an incentive to foreclose its competitors. As far as nonhorizontal effects were concerned, the Commission investigated whether the transaction would lead to two specific input foreclosure concerns in this case.[50] First, the Commission investigated whether the merged entity would have the ability and incentive to carry out an input foreclosure strategy regarding Television Audience Measurement (TAM) services by favoring its own media buying operation in terms of quality or timing of the delivered data. Such a concern was dispelled by the Commission, in particular given the strong regulatory body and industry scrutiny of TAM services. Moreover, the Commission noted that TAM customers could easily relaunch a tender to replace a TAM provider if they were dissatisfied with the quality of its services.

[48] Case COMP/M. 5406, IPIC/MAN Ferrostaal (2009).

[49] Case COMP/M. 5232, WPP/TNS (2008).

[50] The transaction led to horizontal concerns with respect to market research services in Ireland and to TAM services at the EEA level, for which suitable remedies were submitted by the parties.

Second, the Commission investigated whether the combined entity was likely to engage in input foreclosure by increasing prices of Media Adex (advertising expenditure measurement) or refusing to supply its media buying competitors with Media Adex services. Although the decision acknowledges that Media Adex constitutes a key input for media buyers, it concluded that the merged entity would not have the incentive to foreclose its downstream competitors as such a strategy would be countered by entry or expansion of competitors in TAM services, possibly sponsored by media buyers.

In conglomerate mergers, too, the Guidelines highlight the main factors that determine whether the combined entity would have not only the ability, but also the incentive, to foreclose its competitors. The incentive to foreclose through tying/bundling was for example considered in *Koninlijke Philips Electronics/Saeco International Group*,[51] a case in which the parties' activities overlapped in the market for domestic coffee machines.[52] Two potential conglomerate theories of harm were considered in this case. First, it was considered whether Philips's presence in a number of neighboring markets for electronic products could lead to anticompetitive foreclosure through tying or bundling practices. This was rejected for a number a reasons, including the fact that there exist clear alternatives to Philips's products in these neighboring markets and the fact that there was no evidence indicating that Philips attempted in the past to tie or bundle its products in order to foreclose competitors. Second, the Commission examined whether anticompetitive effects could arise as a result of Philips's strong position in pad machines (with its brand Senseo) particularly in Belgium and the Netherlands. In that respect, the Commission considered that, although Senseo machines were seen by some retailers as a must-have product, the combined entity was unlikely to engage in pure bundling of Philips's pad machines with Saeco espresso machines as there was a significant pool of retailers who did not buy both Senseo and high-end espresso

[51] Case COMP/M. 5547, Koninlijke Philips Electronics/Saeco International Group (2009).

[52] At the time of notification, Philips was a global supplier of electronic products, while Saeco was a manufacturer of coffee machines for domestic and professional use.

machines such as Saeco's. Moreover, Philips already had minor operations in espresso machines before the transaction but had not been successful in that area, which further suggests that its presence in pad machines does not bring a strong advantage for the sale of higher end espresso machines. On that basis, the Commission cleared the operation without remedies in phase I.

C. *Observations on the practical implementation of the proposed framework*

In practice, the framework proposed by the Guidelines has shown a disciplining effect by focusing the Commission's analysis on the most important questions concerning the competitive characteristics of the market and the various constraints that a firm engaging in a foreclosure strategy would encounter. Yet, another point that also appears clearly from the application of the Guidelines' framework is that the Guidelines cannot be applied as a checklist. Indeed, the qualitative elements mentioned in the Guidelines are only valid ceteris paribus, while in practice these are generally interdependent. Thus, rather than applying the criteria set out in the Guidelines one by one as a checklist, it is important to grasp a wider picture and figure out the reasons and market characteristics underlying these observed elements.

For example, low margins on the downstream market may be indicative of a higher degree of competition, due, for example, to the absence of strong differentiation of the parties' products, which would lead to more sales being captured by the downstream arm of the integrated company for a given price increase by its downstream competitors. Therefore, assessing upstream and downstream margins without analyzing the competitive situation on the downstream market may lead to the wrong conclusion with respect to the profitability of input foreclosure.[53] This is why, in *TomTom/TeleAtlas* and *Nokia/Navteq*, elasticities on the downstream market were estimated econometrically so that the incentive to foreclose could be assessed in an integrated analysis.

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[53] This point is also made in Roman Inderst & Tommaso Valletti, *Incentives for Input Foreclosure* (Working Paper, October 2008), *available at* http://www.wiwi.uni-frankfurt.de/profs/inderst/Competition_Policy/foreclosure_inderst_valletti_oct08_withappendix.pdf.

Another point that appears from the application of the Guidelines' framework is that one cannot perform an analysis of incentives without considering at least some of the transaction's effects. Although it is not necessarily indispensible to precisely measure all effects, and in particular efficiencies, that may result from a transaction to reach a conclusion on the incentive to foreclose, a detailed analysis of the incentive to engage in an input foreclosure strategy requires determining whether the lost sales on the upstream market could be compensated by higher sales or higher prices on the downstream market, and hence the effect of such a strategy on the downstream market.[54] For this reason, the incentive to engage in foreclosure and the effect on the downstream market are examined jointly in some decisions, as for example in *Itema/BarcoVision*.[55]

V. A FEW RECURRING ISSUES

A. *Ex post commitment problem*

Recent cases have acknowledged the importance of considering whether a producer who would decide to exit a market could credibly commit to do so.[56] Indeed, the likelihood of input foreclosure will depend on the merged entity's ability to commit to stop competing on the upstream market. In particular, the integrated company may be tempted to re-enter the upstream market by slightly undercutting its rival, as this would allow it to gain upstream sales with only a marginal effect on the downstream market.

For example, in *TomTom/TeleAtlas* and *Nokia/Navteq*, the Commission considered whether the upstream arm of the integrated company could credibly commit to withdraw from the upstream market, although in

[54] Similarly, the delineation mark between the ability and incentive to foreclose is somewhat arbitrary. Countervailing strategies are sometimes considered an indication that there is no ability to foreclose, but are sometimes also considered indicative of a lack of incentive to foreclose.

[55] *See* Case COMP/M. 4874, Itema Holding/BarcoVision Division (2009) recital 71.

[56] The commitment problem is discussed in Janusz A. Ordover, Garth Saloner & Steven C. Salop, *Equilibrium Vertical Foreclosure*, 80 AM. ECON. REV. 127 (1990).

these particular cases this question could be left open, as the decision considered that the merged entity would not have an incentive to foreclose its downstream competitors. In particular, one way through which the integrated firm could commit to withdraw from the input market would be to make the input it supplies incompatible with the technology of rival downstream firms. In that case, the cost of reversing the technology towards compatibility has to be considered in judging whether such a commitment would be credible.

B. *Product degradation and confidentiality issues*

The Guidelines indicate that an input foreclosure strategy may take place through forms more subtle than a price increase, including through the degradation of input quality.[57] Input quality degradation was mentioned as a cause for concern by a number of competitors in a variety of cases, such as *Google/DoubleClick*, *TomTom/TeleAtlas* and *WPP/TNS*. In such cases, it is important to determine whether the integrated company would have an incentive to degrade its product (taking into account the possible cost savings and the resulting effect on competitors).[58]

Often, downstream competitors also feel uneasy about sharing information with a competitor or relying on a product manufactured by a competitor. This confidentiality concern is acknowledged in the Guidelines, which indicate that by "becoming the supplier of a downstream competitor, a company may obtain critical information, which allows it to price less aggressively in the downstream market to the detriment of consumers."[59] While such concerns may be of more direct relevance to cases where information is key for the

[57] Guidelines, *supra* note 1, at ¶ 33.

[58] In *TomTom/TeleAtlas*, for instance, the Commission considered that although quality degradation could in principle have a strong impact on competitors downstream (if, for example, it had the effect of delaying the entry of their new products), PND manufacturers could always turn to Navteq for a quality map. Degrading quality would be profitable for TeleAtlas only if, as a result of a price increase by Navteq, it was able to capture sufficient sales downstream to compensate for the losses upstream. As for a price increase, this was considered unlikely to happen in this case.

[59] Guidelines, *supra* note 1, at ¶ 78.

competitive process,[60] they have been voiced by competitors in a wide variety of settings. This was the case in *TomTom/TeleAtlas*, *Google/DoubleClick*, and *Itema/BarcoVision*.

Confidentiality concerns are similar to product degradation. In particular, downstream competitors would see the integrated company's input as less valuable if the confidential information they exchanged with the upper arm of the integrated company was used to their detriment on the downstream market. To analyze such concern, and beyond an analysis of factual evidence concerning the type of information that needs to be exchanged, and the direction of the information flow, it may thus also be useful to investigate whether the integrated company would have an incentive to credibly protect its competitors' confidential information.[61]

C. Entry

The Guidelines indicate that the Commission's competitive assessment must take into account the countervailing strategies that rivals may deploy.[62] One countervailing factor that may be

[60] *See, e.g.*, Case COMP/M. 3440, EDP/ENI/GDP (2004) (bidding electricity markets).

[61] In *TomTom/TeleAtlas*, for instance, several PND manufacturers indicated that they were concerned that TomTom would gain access to their confidential information if they sourced their maps from the merged entity. The Commission considered that PND manufacturers would see TeleAtlas's map as less valuable if they feared that TeleAtlas would leak their confidential information to TomTom and that the upstream/downstream profit trade-off in this case would give the combined entity an incentive to solve these confidentiality concerns or decrease prices to keep supplying maps. Indeed, the Commission considered that customers with confidentiality concerns could otherwise switch to Navteq, and the relatively limited downstream gains from the sales that the merged entity could capture if Navteq increased prices as a result would not be sufficient to compensate the merged entity's upstream losses. In addition, the Commission noted that TomTom would not obtain a significant competitive advantage by gaining access to the information provided by PND manufacturers to their map supplier since sales information was already available through industry sources, sales forecasts were not binding, and most PND innovations did not appear to be map-related or to require that the PND manufacturer supply sensitive information to its map supplier.

[62] Guidelines, *supra* note 1, at ¶ 51.

particularly relevant to vertical mergers is entry on the upstream market, as downstream competitors may enter themselves or sponsor entry on the upstream market in response to an input foreclosure strategy. Indeed, vertical integration by competing downstream players and sponsored entry, or even just a credible threat thereof, could in many instances defeat a foreclosure strategy.

For example, in *Itema/BarcoVision*, the results of the market investigation suggested that the merged entity's main upstream competitor, Uster, would be unlikely to increase prices to an extent that would make an input foreclosure strategy profitable for the merged entity. In particular, the Commission considered that foreclosure was unlikely to be profitable, as it might have triggered vertical integration by downstream competitors Schlafhorst and Murata, which could develop their own sensors for winders. Although vertical integration by Schlafhorst or Murata may require several years to materialize, the Commission considered such a threat credible, in particular in light of the vertical integration of Schlafhorst in sensors for spinning.

VI. CONCLUSION

Recent cases have shown that the Guidelines provide a useful framework for analyzing nonhorizontal mergers, by focusing the analysis on key questions, such as the existence of efficiencies, market power, barriers to entry, countervailing strategies, or on the profit trade-off linked to foreclosure strategies. Clearly, the Commission has gone a long way compared to some previous decisions, which considered vague portfolio theories or efficiency offenses.

Yet, recent experience has also shown that customers and competitors often voice strong concerns in nonhorizontal mergers. Here, the difficulty resides in distinguishing genuine concerns that a transaction would lead to anticompetitive foreclosure from complaints voiced by competitors fearing a more efficient integrated company. The review of recent cases presented in this article shows that the Guidelines provide a flexible framework within which both qualitative and quantitative economic analysis can be carried out in order to disentangle these two outcomes.

APPENDIX

Table 1

Post-Guidelines cases with nonhorizontal aspects (nonexhaustive)

Case	***Non horizontal Concerns***	***Outcome***
Cases in which vertical effects were considered		
M. 4731 *Google/DoubleClick*	input foreclosure (conglomerate effects were also considered)	Unconditional clearance (Phase II)
M. 4854 *TomTom/TeleAtlas*	input foreclosure	Unconditional clearance (Phase II)
M. 4942 *Nokia/Navteq*	input foreclosure	Unconditional clearance (Phase II)
M. 4874 *Itema Holding/BarcoVision Division*	input foreclosure	Unconditional clearance (Phase II)
M. 5046 *Friesland/Campina*	input foreclosure	Clearance with remedies addressing both horizontal and vertical concerns (Phase II)
M. 5224 *EDF/British Energy*	input foreclosure	Clearance with remedies addressing horizontal concerns and potential non-horizontal concerns (Phase I)
M. 5232 *WPP/TNS*	input foreclosure	Clearance with remedies addressing horizontal concerns only (Phase I)
M. 5262 *Bonnier/Schibsted/Retriever Sverige*	input foreclosure	Withdrawn
M. 5406 *IPIC/Man Ferrostaal*	input foreclosure	Clearance with remedies addressing non-horizontal concerns (Phase I)
M. 5449 *ABF/Azucarera*	input foreclosure	Unconditional clearance (Phase I)
M. 5454 *DSV / Vesterhavet / DFDS*	input foreclosure	Withdrawn
M. 5579 *TLP/Ermewa*	input foreclosure	Clearance with remedies addressing horizontal concerns only (Phase I)
Cases in which conglomerate effects were considered		
M. 5114 *Pernod Ricard/V&S*	Tying/bundling	Clearance with remedies addressing horizontal concerns only (Phase I)
M. 5152 *Posten AB/Post Danmark A/S*	Tying/bundling	Clearance with remedies addressing horizontal concerns only (Phase I)
M. 5547 *Koninlijke Philips Electronics/Saeco International Group*	Tying/bundling	Unconditional clearance (Phase I)