Transparency and Coordinated Effects in European Merger Control[1]

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Abstract: We first outline the foundations in economic theory of so-called coordinated effects with a particular view to mergers and with a special focus on transparency. Then, we review a number of seminal merger cases in EU competition policy (*Airtours*, *Sony/BMG, ABF/GBI Business*) in light of the theory. Next, we briefly present a few other cases where transparency has been an issue. Finally, we discuss in more detail a recent Danish merger prohibition which was based on the presence of coordinated effects. This case poses special challenges to the theory of coordinated effects, since a very large number of products were involved, and significant, individualized discounts were widespread in the market in question.
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1. Introduction

Since the introduction of merger control in the competition-policy regime of the European Union, it has been acknowledged that a merger which would increase transparency in an oligopolistic setting could lead to anti-competitive coordinated effects. Such a merger could be declared incompatible with the common market, unless the competitive concerns could be assuaged through other means.

Recently, the European Commission cleared an acquisition of the yeast producing parts of GBI by Associated British Foods (ABF), another producer of yeast.[3] The Commission found that the transaction was likely to lead to coordinated effects in Spain and Portugal, where the number of major competitors would have been reduced from three to two. To alleviate these concerns, ABF committed to divest GBI's yeast distribution businesses in these two member states, along with a suitable production facility, if necessary.

Another recent development took place in 2008 in Denmark where the Danish Competition Council (DKCC) based its first merger prohibition ever on coordinated effects.[4] This merger decision is interesting since the parties - wholesalers of plumbers' and electricians' supplies - supplied a large

[1] This paper is in part inspired by a session at the Annual Conference of the Association for Competition Economics (ACE) in Budapest 2008. Two of the authors of the paper (Svend Albæk and Peter Møllgaard) participated in the session as did chief economist Søren Gaard of the Danish Competition Authority and professor Hans Keiding of the University of Copenhagen. Their inspiring interventions and discussions have – without implicating them further – contributed to the quality of the paper. Views expressed in this paper are those of the authors and cannot necessarily be seen as an expression of views of the European Commission. We also thank Gergely Csorba of the Hungarian Competition Authority for comments and discussions.

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[3] Case COMP/M.4980 ABF/GBI Business, Commission decision of 23.09.2008.

[4] Lemvigh-Müller's acquisition of Brdr. A & O Johansen. The decision (in Danish) is found at http://www.ks.dk/fileadmin/webmasterfiles/konkurrence/afgoerelser/2008/14.05.08/Raadsafgoerelse_14__maj_2008.pdf.

number of goods. Thus, it is of interest to discuss how (increased) transparency would arise in such a setting.

In this paper the focus is on this Danish merger case. First, though, section 2 reviews the theoretical economic foundations for coordinated effects in merger control, and in section 3 we survey the most relevant EU case history. Section 4 then concentrates on the details of the Danish merger case, in which transparency in the pricing of a very large number of goods was alleged to lead to coordinated effects. Section 5 briefly presents a few other cases where transparency has been an issue. We conclude by discussing how the economic foundations for coordinated effects and transparency in merger control may be improved.

2. Oligopolies, transparency and coordinated effects

Economic analyses in merger cases are increasingly based on oligopoly models, including analyses of the significance of possible changes in the information that is available to market participants before and after a merger. In this section we briefly review whether and when improved transparency may likely lead to higher prices in an oligopolistic market.[5] We focus particularly on the connection between transparency and competition in relation to merger cases.

In its most simple and static form, oligopoly theory relates the market outcome (notably, prices charged and quantities traded) to the type of competition (price competition, capacity competition, competition in marketing, etc.), the degree of product differentiation, differences in cost levels, barriers to entry, access to products and processes, the number of firms, etc. The most well known models of oligopolistic interaction are those of Cournot and Bertrand competition, according to which Nash equilibrium outcomes of non-cooperative games are studied. These models may be used to assess competition between suppliers of close substitutes when they have access to approximately identical technologies. It is well established that these theories predict a negative relation between the number of firms and their average profitability, *and* that, given the number of firms, the profits are lower than that which would arise, had the firms been able to coordinate fully (as in a monopolizing cartel).

[5] The section draws on our previous work, and readers interested in more detail are referred to Albæk, Møllgaard & Overgaard (1996, 1997), Møllgaard & Overgaard (2006) and Overgaard & Møllgaard (2008). For an authoritative exposition of the underlying theory of oligopoly we refer to Tirole (1988, chs. 5-6). Garces-Tolon, Neven & Seabright (2009) assess the role of game theoretic models of oligopoly for the analysis of coordinated effects of mergers.

From this follows that firms in an oligopoly collectively have an interest in coordinating their actions, in order to reduce total supply and increase the price level so as to increase expected profits. However, it is also well known from the economics literature that there are numerous compelling reasons why firms may find such coordination difficult. The most immediate reason is that firms have a strong incentive to increase their individual profits, if the behaviour of rivals allow for this. The basic oligopoly models can be varied almost infinitely, but it is a relatively robust prediction that the intensity of uncoordinated competition is too high compared to what the oligopolists would prefer as a collective. Thus, we have established the fundamental interest of firms in coordinating market behavior.

Very broadly, the literature on oligopolistic competition can be divided into two strands of relevance to merger cases. The first strand develops the simple reasoning above to take account of the fact that almost all firms in the real world engage in dynamic competition in contrast to the simple static picture of competition outlined above. Against this backdrop, a large and often complicated theoretical literature on dynamic oligopolistic competition has developed. The other strand of literature on oligopolistic competition studies firms' fundamental interest in merging with one-another under certain circumstances, in order to eliminate a number of competitors from the market place, which in turn will result in higher prices and profitability. This strand also studies possible synergy or rationalization effects that may result from mergers and how such effects affect, inter alia, prices and profits.

Models of dynamic oligopolistic competition predict that a high degree of coordination may result, if firms are sufficiently patient, and if the underlying interaction between the firms is repeated sufficiently often at more or less regular intervals. If firms are sufficiently patient, conditional strategies of the type "I set high prices, if you set high prices; and I set low prices, if you set low prices" achieve prices and profits which are above the competitive level that would obtain in the simple static models of competition. The literature refers to implicit coordination or "tacit collusion" as a possible result of dynamic competition. Formally, this is a version of the Folk Theorem which stipulates that a large set of profits – including very high ones – may be supported as Nash equilibria in an infinitely repeated game where future payments and profits are discounted.[6]

[6] The reason that this is called a Folk Theorem is that no single researcher has exhibited sufficient hubris to claim the result.

This conclusion is problematic and close to useless for (at least) three reasons. First, it is hard to define what "sufficiently patient" means.[7] Second, the theory only predicts that "some degree" of coordination is possible – not the extent to which coordination is, in fact, achieved by firms. Third, the conclusion is based on the assumption that all firms and their customers have the same and near complete information about all relevant circumstances – full transparency is assumed.

On the one hand, to support tacit coordination it is required that the firms share an understanding of how the game should play out - i.e. that they can find a "focal point" to use the game theoretical jargon. Since there may be many ways to play the game, we say that there is strategic uncertainty *ex ante*. Such strategic uncertainty must be resolved, in order to achieve tacit coordination. To resolve the uncertainty, information exchange and communication between the firms may be needed – i.e. firms require a considerable degree of transparency. Clearly, the possibility of communication and the quality of the information available is affected by the number of firms that need to share the information and engage in communication. On the other hand, tacit coordination requires some form of enforcement of the implicit agreement. Enforcement requires that the firms quickly and effectively can react to breaches of the implicit agreement, which in turn necessitates speedy and perhaps detailed and firm-specific information about past actions.

Outside the realm of mergers, in earlier work we have studied a Danish empirical example of a local market for ready-mixed concrete, see Albæk, Møllgaard & Overgaard (1997). This case shows how improved flows of information between oligopolists regarding actual, firm-specific transaction prices may both eliminate strategic uncertainty and improve the enforcement of implicit agreements. In this setting, it was hard to find alternative explanations of why prices would go up so significantly and the variation of prices drop so much, shortly after the firms gained access to much improved, firm-specific information.

To zoom in on the importance of transparency for the assessment of the competitive effects of mergers, we first make precise how we understand coordinated effects of mergers. A merger is said to have coordinated effects, if it improves the possibilities of oligopolistic firms to coordinate tacitly. In other words, the merger improves the possibility of reaching a particular form of coordinated market behavior (a "focal point") and/or it improves the possibility of enforcing a certain coordinated behavior through conditional strategies such as those outlined above. We aim to

[7] However, see Davis and Huse (2009) for an attempt at estimating discount factors (the representation of patience) using techniques from financial economics.

understand how the degree of transparency (changes in the structure of the information available to firms) affects the coordinated effects of a merger.

Møllgaard & Overgaard (2006) and Overgaard & Møllgaard (2008) provide a systematic overview of how changes to the flows of information between firms (and between firms and their customers or potential entrants) affect the possibility of tacit coordination. Flows of information can consist both of communication regarding future conduct, which primarily aims at reducing strategic uncertainty, and of information regarding actual past conduct, which primarily plays a role in relation to the enforcement of implicit agreements to coordinate behavior now and in the future. Either way, the speed and reliability of the information is essential. Imprecise and delayed information regarding future intentions cannot play an effective role in nailing down the precise way the game should play out. Delayed and imprecise information regarding actual past behavior may likewise only play a limited role in enforcing implicit agreements.

Aggregate information that hides the behavior of individual firms will be less useful for the enforcement of agreements than firm-specific or transaction-specific information. This is because the individual firm always has an incentive to cheat, and if the information does not reveal the identity of the culprit, targeted punishment is more difficult. Likewise, information which is shared between many parties may, in general, be assumed to be more imprecise. Furthermore, asymmetries and diversity between both insiders and outsiders to a merger may make coordination difficult. First, heterogeneous firms will experience more difficulty in finding a “focal point” for the tacit coordination. Firms with high and low costs, respectively, will have different preferences regarding the outcome of coordination. Second, heterogeneous firms need to exchange more information (precisely on how they are different) than relatively homogeneous firms (who know that they employ the same technologies).

3. Major EU merger cases

Historically, the analysis of “coordinated effects” has been carried out under the heading “collective dominance”. In its seminal *Airtours* judgement of 2002[8], the Court of First Instance (henceforth CFI) made it clear that the legal concept of collective dominance should be understood as a situation in which a merger creates a risk, or increases an already existing risk, of tacit coordination. Before the *Airtours* judgement, both the European Court of Justice (ECJ) in 1998 in *Kali & Salz*[9]

8 Case T-342/99, Airtours v Commission [2002] ECR II-02585.
9 Combined cases C-68/94 and C-30/95, France et al v Commission [1998] ECR 1-01375.

and the CFI in 1999 in *Gencor*[10] dealt with collective dominance. Both of these judgements described characteristics of markets, which would make collective dominance more likely, but they did not provide a precise definition of the type of conduct covered by collective dominance.[11] This created a certain amount of confusion lasting until the *Airtours* judgement by the CFI. Following this, there might still have remained a small uncertainty as to whether the ECJ would agree with the analysis of the CFI in *Airtours*, but this evaporated in the summer of 2008, as the ECJ largely affirmed the analytical framework of *Airtours* in its *Sony/BMG v Impala*[12] judgement.

The *Airtours* judgement anchored collective dominance firmly in economic theory of tacit coordination, and the European Commission did the same in its horizontal merger guidelines.[13] The *Airtours* judgement proposes three criteria which must be fulfilled, in order for coordination of behavior to be sustainable.[14] The horizontal merger guidelines of the European Commission summarized the three criteria thus: “First, the coordinating firms must be able to monitor to a sufficient degree whether the terms of coordination are being adhered to. Second, discipline requires that there is some form of credible deterrent mechanism that can be activated if deviation is detected. Third, the reactions of outsiders, such as current and future competitors not participating in the coordination, as well as customers, should not be able to jeopardise the results expected from the coordination."[15]

Transparency plays a fundamental role through the first criterion. In *Airtours*, the CFI notes directly that "[t]here must, therefore, be sufficient market transparency for all members of the dominant oligopoly to be aware, sufficiently precisely and quickly, of the way in which the other members' market conduct is evolving”.[16] In its horizontal merger guidelines, the European Commission further elaborates on factors that are important in the analysis of market transparency.[17]

The CFI dealt thoroughly with market transparency in *Airtours*[18] finding that “…[the Commission] wrongly concluded that the degree of market transparency was a characteristic which made the

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10 Case T-102/96, Gencor v Commission [1999] ECR II-00773.
11 ”Transparency” was one of the properties mentioned, see e.g. para. 276 in *Gencor*.
12 Case C-413/06 P, Bertelsmann AG and Sony Corporation of America v Impala.
13 Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings, OJ 2004 C31, p. 9.
14 Para. 62.
15 Horizontal merger guidelines, para. 41.
16 Para. 62.
17 See e.g. para. 49-51.
18 Para. 148-180.

market conducive to collective dominance".[19] Thus, lack of transparency was one of the reasons that the CFI overturned the Commission's prohibition decision.

Transparency also plays a major role in a complicated merger case which has moved back and forth between the Commission and the Courts for a number of years. The market for music recording is relatively concentrated with only a few large firms[20] – and a large fringe of smaller independent firms. It might appear that the market could be characterized as having a low degree of transparency due to the large number of new CDs brought to market each year. However, a closer look reveals that the price setting displays a number of regularities. The music companies have fairly identical price structures, and a given CD is typically placed in one of a number of "pricing points" (list prices). This reduces the complexity of the market significantly. The question for the Commission and the Courts was (and still is), if this reduction was sufficient to allow for tacit coordination. The Commission was first seriously confronted with this question in 2000 in the *Time Warner/EMI* case.[21] However, the parties gave up on the merger, while the Commission was in the process of analyzing it. In 2004, Sony and BMG wanted to merge their activities. The Commission was initially of the opinion that the market was sufficiently transparent for the merger to be problematic, but it still decided to approve in the end.[22] The Commission changed its mind in the process as it was persuaded that the way in which discounts on list prices were granted – especially "campaign discounts" – undermined market transparency. Impala, an umbrella organization for a number of independent firms, appealed the decision to the CFI, which in its 2006 judgement concluded that the Commission had posed too strict requirements on the transparency of the market.[23] For this reason, the Commission was obliged to analyze the merger again, but Sony and BMG simultaneously appealed the CFI's judgement to the ECJ. Following a very comprehensive investigation, the Commission re-asserted its first decision and approved the merger again in 2007. Again, this decision was appealed by Impala to the CFI. In 2008 the ECJ Court then overturned the CFI judgement of 2006 and sent it back to the CFI.[24] The ECJ disagreed inter alia with the CFI's analysis of the importance of transparency. At the time of writing the CFI is in the rather unusual position of having to treat Impala's appeals over two approvals three years apart of the same merger. This cumbersome process shows how complicated the analysis of transparency in merger cases can be – and that no clear court practice has yet emerged.

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19 Para 180.
20 Before the merger: Sony, BMG, Universal, Warner and EMI.
21 Case COMP/M.1852 Time Warner/EMI.
22 Case COMP/M.3333 Sony/BMG, OJ 2005 L 62, p. 30
23 Case T-464/04, Independent Music Publishers and Label Associations v Commission [2006] ECR II-02289.
24 Case C-413/06 P, Bertelsmann AG and Sony Corporation of America v Impala.

After the *Airtours/First Choice* decision[25] of September 1999 that lead to the *Airtours* judgement in 2002, it took nine years before the Commission again found collective dominance in a merger case. In *ABF/GBI Business* of September 2008[26], the merging parties had to divest various activities in order for the Commission to approve the merger. In this case, transparency ought to have been a smaller problem for the Commission than in both *Airtours* and *Sony/BMG*. ABF and GBI Business produced compressed yeast, and the sensitive geographical markets were Spain and Portugal. Compressed yeast is a relatively homogeneous product with few market participants. Intuitively, it is thus likely that such a market would be more transparent than the markets analysed in *Airtours* and *Sony/BMG* – and in fact the Commission concluded that both geographical markets were relatively transparent. The Commission also found that both the Spanish and the Portuguese compressed yeast market already exhibited "some degree of tacit coordination". With respect to transparency such a finding changes the discussion from whether the market is sufficiently transparent to allow tacit coordination to whether the merger will make the market more transparent and thereby allow more effective coordination.

4. Merger control in Denmark and an important prohibition

Since 1997, Danish competition policy has been gradually harmonized with EU competition rules, and in May 2000 Parliament decided to introduce EU-type merger control. In the period 2000-2008, the Danish Competition Authority (DCA) received 125 notifications of mergers of which 34 were later withdrawn. Of the remaining 91, 90 were approved: 69 unconditionally, 16 with remedies and 5 using a rule on advance approval, see DCA (2008, p. 47) for details. So far only one merger has been prohibited by reference to Danish merger regulation. This was *Lemvigh-Müller's* acquisition of Brdr. A & O Johansen, which was decided by the DKCC at its meeting on 14 May 2008. This section focuses on the *Lemvigh-Müller/Brdr. A & O Johansen* merger case, which is particularly interesting, since it involves transparency in relation to coordinated effects for a large number of products.[27]

In December 2007, DCA received the notification of *J.F. Lemvigh-Müller Holding A/S'* acquisition of the shares of Brdr. A & O Johansen. Both firms are wholesalers of plumbing supplies, supplies

[25] Case IV/M.1524 – Airtours/First Choice, EU OJ 2000 L 93.

[26] Case COMP/M.4980 ABF/GBI Business, Commission decision of 23.09.2008. For a more comprehensive description of the case, see Neven & de la Mano (2009).

[27] The following account builds on information collected from the DCA's publishing (in Danish) of the decision of the Competition Council dated 14 May 2008 at its website:
http://www.ks.dk/fileadmin/webmasterfiles/konkurrence/afgoerelser/2008/14.05.08/Raadsafgoerelse_14__maj_2008.pdf

for water and sewage systems, tools, tool machines, electricians' supplies as well as steel and metal for professional customers. Lemvigh-Müller (henceforth LM) had a turnover of approximately EUR 1 billion in 2006, while Brdr. A & O Johansen (henceforth AO) had a turnover of about EUR 365 million.

DCA decided that the merger would increase the likelihood of coordinated effects on the markets for plumbing supplies, water and sewage supplies and electricians' supplies. DCA did not investigate the market for tools and tool machines, since it found that this would not be of importance to the decision. In the following we thus focus on the markets for plumbing supplies (PL), for supplies for water and sewage systems (WS), and for electricians' supplies (EL).

The wholesalers acted as distributors between a large number of producers of PL, WS and EL products and a large group of customers, typically plumbers and electricians but also contractors, industrial customers and public utilities. The wholesalers sell, store and deliver several thousand products from about four thousand manufacturers. Competition plays out on the following parameters: price, product selection, service (e.g. next day delivery, technical support), and availability. Transaction prices are normally based on a list price from which individually negotiated discounts may be granted. Discounts are often in the 30-40 percent range, depending on the product.

The merger would have led to a reduction in the number of wholesalers with nationwide branches from four to three in the PL and WS markets (Brdr. Dahl, LM/AO and Sanistål) and from three to two in the markets for EL (Solar and LM/AO). DCA found that the merger would have meant that the largest players on all markets would obtain large, relatively symmetric market shares (for the importance of this, see Section 2).

DCA then argued that a condition for coordinated effects to accrue is that the degree of transparency is sufficiently high to allow both for the determination of a focal point and for the detection and punishment of deviation from the implied coordination (tacit collusion) (cf. also Section 2). The fact that the tacit agreement would pertain to several thousand products and the existence of significant, individual discounts represented a challenge to the claim that transparency was already high and that the merger would increase it even further. DCA argued as follows:

1. Wholesalers' list prices are known by market participants (especially customers). For PL and WS products, a specialized company, DanKalk, makes this possible. Wholesalers submit their price lists to DanKalk, which in turn provides price comparisons to customers that use these as inputs to their bids for contracts. For the EL products, price lists are not so easily available, "but significant actors have explained that wholesalers may access competitors' price lists relatively easily."[28]
2. The close and ongoing contact between wholesalers and their customers was also found to contribute to the transparency. A customer would typically have one wholesaler as main supplier but would, in addition, trade with one or two of the remaining wholesalers. When the customers try to play one wholesaler against the other, then the wholesalers obtain knowledge of their competitors' prices and discounts. This facilitates detection of deviations from tacit collusion.
3. At a dawn raid, DCA found that at least one major wholesaler was able to estimate turnover and market shares regarding PL and WS products and also that it could do a regional breakdown of these numbers. At the same time, the Pipe Association (Rørforeningen) publishes regional sales statistics six times a year.

DCA then argued that a reduction from four to three significant players in the PL and WS arena, and from three to two in the EL arena, would have increased transparency. It would have reduced the number of competitors that needed to be monitored and, hence, facilitated detection of deviations from tacit collusion. It would also have been easier to find a focal point. In addition, DCA argued for the existence of credible punishment mechanisms, cf. also the *Airtours* criteria mentioned in Section 3. Based on the complete (359-page) analysis, DCA recommended prohibiting the merger.

The *LM/AO* merger analysis poses two main challenges for academic research. *First*, the arguments to support that the merger would lead to more transparency could be strengthened. DCA's arguments build upon the reduction in the number of rivals and the resulting facilitation of monitoring. This may be particularly important when the implicit agreements cover many thousand products. To our knowledge (despite the comment in Section 2), the literature does not provide a model that links the degree of market concentration with the transparency of the market. This is an obvious topic for future research.

[28] Decision by the DKCC of May 14, 2008, para. 50 – our translation.

The *second* challenge is due to the large number of products in combination with significant, individual, negotiated discounts. DCA builds its arguments on theory: customers collect information which is then disseminated between wholesalers in the same way that a meet-the-competition clause[29] may be used to acquire information regarding deviations from tacit collusion. Møllgaard & Overgaard (2006) and Overgaard & Møllgaard (2008) argue that the exchange of disaggregated information regarding historical prices and quantities may create a significant scope for oligopolistic coordination, especially if the information is relatively up-to-date. However, the analysis concluding that customers of firms wishing to coordinate may be used to collect information in markets with many thousand products is somewhat rudimentary.

The merging parties in *LM/AO* argued that the large number of products reduced transparency. If firms cannot observe each others' historical actions, the whole foundation of the Folk Theorem collapses. As mentioned in Section 2, the Folk Theorem proposes that in a repeated game of oligopoly with *observable* actions there may be Nash equilibria which support outcomes significantly more profitable to the firms than the non-cooperative (competitive) Nash equilibrium. This forms the foundation for the industrial organization theory of tacit collusion.[30] If the firms cannot observe each others' actions, or if they can only observe these incompletely, then "anti-Folk Theorem" situations may arise. In this situation, the only possible equilibrium is the repeated play of the competitive or non-cooperative Nash equilibrium.[31] The challenge is to provide a reasonable explanation of how the rivals in the market are supposed to aggregate the sporadic, scattered, transaction-specific information to a measure that may be used in the enforcement of collusive strategies in a repeated game.

5. A few other cases

In this section we briefly describe the way transparency was discussed in a few cases with markets at least somewhat similar to those of *Sony/BMG* and *LM/AO*.

The UK Competition Commission (UK CC) in 2003 looked into the possibility of the grocery retailer Safeway being acquired by either Asda, Morrisons, Sainsbury or Tesco. The UK CC presented its findings in a lengthy report:[32] One of the theories of harm discussed was coordinated

[29] On meeting competition clauses as facilitating tacit collusion, see e.g. Salop (1986), pp. 279-282.
[30] See e.g. Tirole (1988, ch. 6).
[31] See e.g. Carmona (2006) for the general theory and Hansen & Keiding (2009) for an application of anti Folk Theorems to the *LM/AO* merger.
[32] "Safeway plc and Asda Group Limited (owned by Wal-Mart Stores Inc; Wm Morrison Supermarkets plc; J Sainsbury plc; and Tesco plc – A report on the mergers in contemplation", UK Competition Commission 2003.

effects. Supermarkets clearly sell many thousands of products. Nevertheless, the UK CC found that "there is a sufficient degree of comparability between many individual grocery products as to enable the multiple grocery retailers to make price comparisons between their own and their competitor's grocery baskets; and high levels of monitoring of both price and non-price factors are indeed carried out by the multiple grocery retailers themselves and by market research firms, who can also monitor volume changes of the parties. These activities favour coordinated effects and, with the loss of a national player following the acquisition of Safeway by Asda, Sainsbury's or Tesco, would create even greater ease of comparison as the number of competitors needing to be monitored was reduced".[33] The UK CC therefore did not consider a large number of products to be decisive for concluding a lack of transparency.

The European Commission also found that there could be ways to overcome the problem of many products for transparency in *Antalis/MAP*[34], and the parties offered remedies in order to achieve a first-phase clearance of the merger. Antalis and MAP were both active in the distribution of fine paper. Post-merger there would only be two major fine paper distributors in the United Kingdom. The merging parties argued that the market was not sufficiently transparent that coordinated effects were possible. They argued that (i) there were no price lists in the UK, (ii) negotiations took place on a one-to-one and even on a day-to-day basis, (iii) high rebates were given, and (iv) there was a wide range of types of paper products. The Commission's "market investigation did not clearly dispel the possibility of price transparency". The Commission argued that the fact that there would only be two major paper distributors post-merger might allow information on prices to be disclosed through negotiations with customers. The Commission also argued that the wide range of types of paper did not "exclude that the price of each of these products can be easily observed through a very limited number of criteria. For instance, all products in different size could be sold at the same price per weight plus a mark-up for different quality of finish." The Commission therefore "came to the conclusion that the absence of price transparency could not be established in the UK market with the required standard of evidence." [35]

In *Avnet/Abacus*[36] the European Commission was faced with a merger between two distributors of electronic components. Here the Commission did not find that the transaction created any competition concerns. Among the reasons for dismissing concerns based on coordinated effects the

[33] UK CC Report, p. 6.
[34] Case COMP/M.4753 Antalis/MAP, Commission decision of 24.10.2007.
[35] Para. 66-670.
[36] Case COMP//M.5385 Avnet/Abacus, Commission decision of 19.01.2009.

Commission mentioned that "the wide variety and large number of different products which are sold by distributors, the rebate policy based on quantities, and the combination of the product supply with various services does not seem to provide the necessary degree of transparency to establish and monitor terms of coordination".[37]

6. Concluding remarks

We have presented some initial insights on the relationship between oligopolistic competition and market transparency in relation to mergers and merger control. Existing oligopoly theories in their static and dynamic representations have plenty to say about how competition and transparency are related. The main challenge for merger control is to incorporate these industrial economics insights into the assessment of mergers' potential for coordinated effects. By outlining a number of merger cases we show how legal practice presently attempts to resolve this challenge. Even though we doubt that legal practice in this area has found its final form, there is no doubt that firms that contemplate a merger must be prepared to be scrutinized also in terms of the merger's effect on market transparency and, hence, on its possible coordinated effects. Our discussion also reveals that several academic challenges remain to be resolved by the economics profession both in terms of theoretical and empirical modeling of the competitive effects of mergers.

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