THE IMPACT OF THE NEW SUBSTANTIVE TEST IN EUROPEAN MERGER CONTROL

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A. Introduction

After a two-year review process, the European Commission adopted on 1 May 2004 a new Merger Regulation,[1] replacing the old EU Merger Regulation of 1990. In addition, guidelines on the assessment of horizontal mergers were issued.[2] During this review process, one of the most controversial and intensively debated issues surrounding the future regime of European merger control was the new substantive test, the so-called SIEC ("significant impediment of effective competition") test.

This paper addresses the issue of whether the new merger test has made any difference in the way the Commission evaluates the competitive effects of mergers. We approach this question by reviewing the main arguments of why the test was changed and discuss the anticipated impact. It is argued that the new test can be expected to increase both the accuracy and effectiveness of merger control in two ways: first, it may close a gap in enforcement, which may have led to underenforcement in the past; and secondly, it may add to clarity by eliminating ambiguities regarding the interpretation of the old test, which possibly led to overenforcement in some cases.

The remainder of the paper looks at the evidence available to date. We review a number of cases and ask in what way—if any—the new merger regime has made a difference. In particular, we ask whether there is any evidence of the above issues of under- and overenforcement.

We conduct an exploratory review of recent cases notified under the new test where the Commission has identified competition concerns.[3] We focus on challenged mergers for two reasons. First, the assessment in such cases tends to

* European Commission. The views expressed are those of the authors and do not necessarily reflect those of the European Commission or DG Competition.

1 Council Regulation (EC) No 139/2004 of 20 January 2004, [2004] OJ L24, 1.

2 "Commission Notice—Guidelines on the Assessment of Horizontal Mergers under the Council Regulation on the Control of Concentrations between Undertakings", DG COMP, 28 January 2004.

3 It is worth emphasising that our analysis is based on relatively few selected cases and is thus subject to small sample and sample selection issues. Alternatively, one could provide more systematic econometric evidence to test our hypothesis. We leave this to future research.

be more elaborate and detailed. It is thus easier to identify the extent to which the new test and the guidelines have influenced the Commission's practice. Secondly, a change of the test was not really necessary in order to resolve the confusion regarding its interpretation—a simple clarification may have sufficed to ensure benign mergers are cleared. However, the existence of an enforcement gap is a different issue: if an enforcement gap was present under the old test, then the new test really matters. It follows that the "acid test" of whether the new test has an impact or not is to identify a "gap case". In other words, the new test is likely to make a difference if there is evidence that the Commission challenges a merger that would have been authorised under the old test. We focus on cases where the Commission has raised competition concerns in search of identifying such a gap case.

At the outset, we stress that this paper cannot provide conclusive evidence on the impact of the new merger regime. First, it is notoriously hard to establish what the correct counterfactual to the new merger regime is. Secondly, the adoption of a new test and merger guidelines cannot be expected to have a one-time, radical and sweeping impact on the Commission's decisional practice. The influence is more likely to be slow and gradual as the Commission and the merger control community at large adapt to the new rules of the game. Another reason why the evidence may not be conclusive at this time is that the vast majority of cases raise no competition concerns. In the short period since their adoption, the new test and the guidelines could have potentially made a difference in only a handful of cases.

Our findings are briefly summarised as follows. As expected, there is no evidence of a radical change in the way the Commission assesses the competitive effects of mergers. In particular, we find that dominance continues to play an important role in most cases, and once established, appears sufficient to challenge a merger. However, there is evidence indicating a process towards emphasising those relevant market characteristics that are indeed consistent with an effects-based approach to merger control. With regard to horizontal mergers, we find no case in our sample that is a clear-cut gap case. However, with regard to vertical mergers, we find that there is at least one case that is likely to be a gap case. As a result, we conclude that the new merger test appears to have an impact.

B. The Old and the New Test

The old EU Merger Regulation, adopted in 1990, prohibits mergers that "create or strengthen a dominant position as a result of which effective competition would be significantly impeded". The old substantive test invites two alternative interpretations. The first version interprets the test as a cumulative two-tier test: a concentration is prohibited if (i) it leads to the creation or strengthening of a dominant position *and* (ii) if the effect of such change in market structure amounts to a SIEC. In other words, dominance is a necessary but not sufficient condition to prohibit a merger.

An alternative interpretation is that mergers that create or strengthen dominance automatically also impede effective competition. Advocates of this view argue that there is a single criterion, ie dominance. This interpretation implies that dominance is both necessary and sufficient—that is, there is only one condition.

The new Merger Regulation, adopted on 1 May 2004, reformulates the substantive test (the SIEC test) as follows: "A concentration which would significantly impede effective competition, in particular by the creation or strengthening of a dominant position, in the common market or in a substantial part of it shall be declared incompatible with the common market."

The need to change the merger test has been discussed previously.[4] Before reviewing the major arguments, let us briefly address the concept of dominance. The standard legal definition of dominance was laid down by the European Court of Justice (ECJ) in *United Brands v Commission*.[5] The Court stated that:

> "The dominant position thus referred to (by Article [82]) relates to a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers."

Critics argue that a dominance-based test is logically flawed since dominance is meaningless in economic terms. Arguably the concept of "acting independently" does not provide an adequate basis for discriminating between dominant firms and non-dominant firms. No firm can set price independently of its customers or consumers: in general, increasing price causes a loss of revenue, either because consumers turn to rival firms or because they drop out of the market. Even a textbook monopolist faces a downward sloping demand curve.

However, it is often overlooked that the independent requirement is not absolute; rather, it is a matter of degree. A firm is dominant if it can behave independently *to an appreciable extent*.[6] This means that its decisions should be

[4] See, eg J Fingleton and D Nolan, "Mind the Gap: Reforming the EU Merger Regulation", *Mercato, Concorrenza, Regole*, 29 May 2003; J Vickers, "How to Reform the EC Merger Test?", speech at the EC/IBA Merger Control Conference, Brussels, 8 November 2002; N Levy, "Dominance v SLC, A Subtle Distinction", Clearly Gottlieb Steen and Hamilton, 6 November 2002.

[5] Case 27/76 *United Brands Co and United Brands Continental BV v Commission* [1978] 1 CMLR 429.

[6] This point was formalised by LF la Cour and HP Møllgaard, "Meaningful and Measurable Market Domination" (2003) 24 *European Competition Law Review* 132.

fairly insensitive to actions and reactions of competitors, customers and, ultimately, consumers.

In economics, sensitivity is typically measured by elasticity. The rivals' price and quantity elasticity measures, respectively, the percentage change in rivals' prices and quantities that follow from a 1% change in the allegedly dominant firm's price. If the rivals' price and quantity elasticities are low, the firm may set its price independently of its competitors to an appreciable extent. Likewise a firm may have the power to behave—*to an appreciable extent*—independently of customers if the demand facing the allegedly dominant firm is relatively inelastic.

The legal definition of dominance is thus very close to the economic notion of market power. Market power refers to the ability to influence important parameters of competition. In particular, a firm that is capable of profitably and durably increasing prices high above the competitive level holds significant market power. Almost all firms have some market power, though most have very little. Accordingly, the relevant question in competition cases is not whether market power is present, but whether it is important (ie substantial). A firm facing low demand elasticity and low rivals' price and quantity elasticities can behave independently of competitors and consumers *to an appreciable extent*. This is reflected in its ability to increase prices significantly above competitive levels. It thus follows that a dominant firm is one that enjoys substantial market power.[7]

1. Dominance as a Sufficient Condition

As discussed above, one interpretation of the old test is that dominance is both necessary and sufficient to prohibit a merger. In such a case, merger control can focus solely on the impact on market structure, not on competitive effects. The problem is that this interpretation is economically flawed. Besides, it has also been explicitly dismissed by the Courts.

In particular, it is problematic to regard the creation or strengthening of dominance as sufficient to establish a significant impediment to competition. Despite creating or strengthening a dominant position, a merger may lead to welfare gains for consumers in the form of lower prices or increased innovation. This could happen for at least two reasons.

[7] The Commission's July 2002 Glossary of Competition Terms endorses this interpretation:

> "A firm is in a dominant position if it has the ability to behave independently of its competitors, customers and suppliers and, ultimately, the final consumer. A dominant firm holding such market power would have the ability to set prices above the competitive level, to sell products of an inferior quality or to reduce its rate of innovation below the level that would exist in a competitive market."

First, the merged entity may attain efficiencies such as marginal cost reductions, which give an incentive to lower prices.[8] This may fully offset the opposite incentive to raise prices resulting from increased market power. It is possible for prices in the market to fall and total output to rise post-merger.

Secondly, a merger may allow input suppliers to attain sufficient market power to offset the negative effects of monopsonistic power. A dominant buyer may find it profitable to withhold input demand in order to obtain price concessions or better terms from its suppliers. Less input purchases may also lead to less output production. A merger between suppliers may create a dominant position, which enhances countervailing seller power vis-à-vis a dominant buyer. This may lead to increased input and output sales and lower output prices.

As a result, the creation or strengthening of dominance cannot in itself be sufficient to prohibit a merger. The courts have rejected the sufficiency of dominance and instead endorsed the two-tier interpretation of the old test. In other words, dominance is a necessary requirement. However, dominance is not sufficient for incompatibility. It must still be shown that competition is significantly impeded:

In *Air France*,[9] the CFI found that:

> "the Commission is bound to declare a concentration compatible . . . where two conditions are fulfilled, [1] the transaction . . . should neither create nor strengthen a dominant position and [2] competition . . . must not be significantly impeded by the creation or strengthening of such position".

However, since dominance is a necessary condition for a SIEC, the Court goes on to argue that: "If therefore, there is no creation or strengthening of a dominant position, the transaction must be authorised, without there being any need to examine the effects of the transaction on effective competition."

It can be argued that both the Court and the Commission have been at times ambiguous in the drafting of their decisions and have given the impression that the notions of "dominance" and "significant impediment to effective competition" (SIEC) are not just related but interchangeable. The European Court of First Instance (CFI) explained in its recent *EDP* judgment[10] why there might have been confusion on this point:

8 There are many sources of efficiencies that can result from a merger. Mergers may help firms achieve economies of scale, leading to lower costs. They may allow firms to develop new products that would not otherwise exist by expanding R&D capabilities and combining expertise that is not easily transferred among separate firms. They may result in economies of scope, improved capacity utilisation, specialisation of production and reductions in transaction, marketing and distribution costs. All of these types of efficiencies or "synergies" are likely to enhance economic and consumer welfare.

9 Case T–2/93 *Air France v Commission* [1994] ECR II–00323, s 79; confirmed by Case T–290/94 *Kaysersberg v Commission* [1997] ECR II–2137, s 184.

10 CFI's judgment in Case T–87/05 *EDP/Commission*, judgment of 21 September 2005, para 45.

> "in certain cases, however, the creation or strengthening of a dominant position may in itself have the consequence that competition is significantly impeded (48). It follows that proof of the creation or strengthening of a dominant position within the meaning of Article 2(3) of the Merger Regulation may in certain cases constitute proof of a significant impediment to effective competition. That observation does not in any way mean that the second criterion is the same in law as the first, but only that it may follow from one and the same factual analysis of a specific market that both criteria are satisfied. (49)".

Moreover, the CFI restated the view that [the old test]:

> "lays down two cumulative criteria, the first of which relates to the creation or strengthening of a dominant position and the second to the fact that effective competition in the common market will be significantly impeded by the creation or strengthening of such a position (45)."

In sum, the single criterion interpretation of the test (in particular the sufficiency of dominance) is neither economically sound nor has been endorsed by the courts.

2. Dominance as a Necessary Condition—the Two-tier Test

As discussed above, the two-tier interpretation of the old test restricts the concept of dominance to being necessary. This is the interpretation that the courts have also endorsed. The Commission's approach has also evolved over the last decade. In recent years, less reliance has been placed on market share and other structural indicators, with greater emphasis being given to evaluating the competitive characteristics of the market, the dynamics of competition between the merging parties and the competitive effects of notified transactions.

It would seem that under this interpretation and practice no change of the test was necessary. The risk of overenforcement is avoidable if proper attention is given to the second limb of the test. A merger that creates or strengthen dominance may still be authorised if efficiency gains or increased bargaining power vis-à-vis powerful buyers more than offsets the potential harm to consumers. However, if the risk of too many false positives could be averted, why was it necessary to change the substantive test? One answer relates to oligopoly theory—or, as it has been coined succinctly, "closing the gap".

3. The New SIEC Test: Closing the Gap or Clarification?

The new test does not insist on dominance being either necessary or sufficient. Why is that? One argument is that the old test leads to underenforcement. A merger may have serious anti-competitive effects even in the absence of dominance, ie there may be an enforcement gap. The basic intuition behind this argument can be expressed as follows: if the merging parties sell very close substitutes, they impose on each other a significant competitive constraint.

Pre-merger, if a firm raises prices customers may simply switch to its rival. However, following a merger, customers may have no other close substitutes to turn to, and the merged entity could then raise prices significantly, irrespective of whether it becomes the market leader.[11] Arguably, the notion of single-firm dominance envisages a situation where only the leading firm may be dominant in any market. It follows that by making dominance a necessary requirement, the old test offered no legal basis to challenge anti-competitive mergers between firms producing close substitutes, where the merged entity was not the market leader—hence the gap.

However, if dominance is properly understood as significant market power, then there is no reason for market leadership to be necessary for dominance. Moreover, the ability to increase prices above competitive levels depends on more than just market shares. In tight oligopolies, product differentiation reduces the intensity of competition and allows several firms to enjoy market power simultaneously even if none of them emerges as a clear market leader. Here, market power is closely related to the degree of substitutability between different competing brands, rather than market shares per se. Market leadership (and market shares in general) is a poor proxy for market power also in cases where rivals—even larger ones—face cost or capacity constraints (eg in the electricity industry). In regulated industries, the market leader may be constrained in its ability to exercise market power by tighter rules that do not apply to other large—but non-leading—rivals.[12]

On the other hand, the assessment of dominance relies heavily on market shares in practice. According to well-settled case law, a market share above 50% is strong evidence of dominance. A firm with lower market shares, say between 40 and 50%, may also be dominant, particularly if it faces much smaller rivals. Either way, this would seem to imply that dominance requires market leadership. (What is more troublesome is that market leadership may itself imply dominance.) Given this state of play, it seems likely that a gap does in fact exist in practice.

[11] Conversely, if the merging parties sell distant substitutes there may be little impact on prices even if the merged entity becomes the market leader.

[12] Needless to say, market leaders may not be dominant. A firm could have a large market share and the market could appear concentrated, not because the firm has market power but because it has low costs or sells superior products. For instance, a market leader is not dominant where (i) innovation is taking place at a rapid pace; (ii) there is fierce competition between large players; and (iii) entry into a market is easy. Moreover, even a monopolist may be unable to exercise latent market power if it sells durable goods or if it cannot expand sales beyond the monopoly level.

C. Why Change the Test?

Why was it necessary to change the test? In the end, there are two views (if not two camps).

First, the new test clarifies the situation. According to this view, the old two-tier test was in principle capable of addressing the perceived problems, such as the gap or the incorporation of efficiencies. Nevertheless, it was necessary to change the test to make it clear that this was in fact the case. It should be noted in this context that clarity in itself is not just desirable *per se*, it can also have economic effects. Being clear about the test of an antitrust agency will have both a signalling and a reputation effect throughout the market. More generally, the impact of a merger policy may be much larger through action that it does not have to take (because mergers that are certain to be prohibited are not even attempted) than through observable actions that are taken.[13] In this sense, clarifying the merger test has real impact on markets and the new merger test does make a substantive difference.

The second view is that the new test makes a difference in the analysis of mergers itself. Note that the dominance requirement zooms in on the market power of the merged entity, ignoring market-wide equilibrium effects. Ignoring these equilibrium effects may lead to significant errors. For example, the overall impact on prices in a tight oligopoly may be significant, even though a merger may increase the market power of the merged entity to a degree short of dominance. Another example is a merger involving a small firm with one close to being dominant. This merger may create dominance, yet the merger itself may have only a negligible impact on competitive performance. Similarly, a merger involving a dominant firm will almost certainly lead to a strengthening of dominance yet the negative effect may be marginal. The ultimate consideration of merger enforcement is not whether the resulting merged entity enjoys significant market power but whether market power in the industry increases to such a degree that consumer welfare deteriorates significantly.

The rearrangement of the two-limb test articulates SIEC as (the single) sufficient condition for incompatibility and eliminates "dominance" as a necessary condition for SIEC itself. As a result, the Commission is now able to assess how a given concentration affects what would happen to prices, outputs and other important features of an oligopolistic market—including efficiencies—if firms responded in an individually rivalrous way to market conditions even without any increased likelihood of engaging in tacit collusion.

Another aspect of the new merger regime has been the explicit recognition of efficiencies as articulated in the merger guidelines. Despite the fact that the

[13] The fact that an antitrust agency's effectiveness is largely due to actions that it does not need to take makes it notoriously difficult to evaluate its effectiveness. For instance, the fact that no cartels are uncovered could be a sign of both high or low effective enforcement.

Commission could take efficiencies into account under the old test, it had little—if any—practical relevance. As recently as 1999, the Commission stated that "The creation of a dominant position in the relevant markets . . . means that the efficiencies argument put forward by the parties cannot be taken into account in the assessment of the present merger."[14] This view echoed the categorical position taken by the Commission in 1996:

> "There is no real legal possibility of justifying an efficiency defence under the Merger Regulation. Efficiencies are assumed for all mergers up to the limit of dominance—the 'concentration privilege'. Any efficiency issues are considered in the overall assessment to determine whether dominance has been created or strengthened and not to justify or mitigate that dominance in order to clear a concentration which would otherwise be prohibited."[15]

The problem with this view is that the implied 'concentration privilege' assumes that every merger generates the same level of positive efficiency. This is, of course, factually wrong. Some mergers are very efficient, others are not. It is more than doubtful that the average efficiency level of mergers is even positive.[16] As a result of these empirical facts, it simply makes no sense to argue that average efficiencies are assumed up to a level of dominance. Precisely because there are no efficiencies on average, it is necessary to consider efficiency explicitly. The new test, and especially the guidelines, allows for a more explicit consideration of efficiencies in terms of the extent to which such efficiencies could offset anti-competitive effects.

What are the expected benefits of the new merger regime? It follows from the above arguments that the new test and the guidelines should increase merger control effectiveness. Expected benefits can be classified into fewer false negatives (ie reducing underenforcement) and fewer false positives (ie reducing over-enforcement).

1. Fewer False Negatives

As explained above, the primary justification for reformulating the test is to eliminate the requirement to show dominance to challenge a merger. This is expected to reduce false negatives, ie clear anti-competitive mergers, because the test can take full account of the equilibrium effects of the merger. Oligopoly theory is used, either implicitly or explicitly, to make this assessment.

Oligopoly theory examines situations in which a market is supplied by a small and fixed number of players. Each firm chooses its price (or quantity or other

[14] See Case COMP/M.1313 *Danish Crown/Vestjyske Slagterier*, para 198.

[15] European Commission, *Contribution to Efficiency Claims in Mergers and Other Horizontal Agreements*, OECD/GD(96)65, 1996.

[16] For a more complete discussion of this point see L-H Röller, J Stennek and F Verboven, "Efficiency Gains from Mergers" (2001) 5 *European Economy, Reports and Studies* 31.

variable in which competition occurs), given the prices of its rivals. This gives a best response function, which is the set of prices that a firm would charge in response to any price configuration set by rivals. Equilibrium occurs where these best response functions intersect. In other words, each firm's price is a best reaction to the prices that the others are setting.

When two firms merge, their best response reaction function shifts upward: in other words, even if rivals did not change their prices, the merged firm would find it profitable to set a higher price. The size of this price rise will depend upon a variety of factors, including the number of firms in the market, relative efficiency, demand elasticity and substitutability of products.

An immediate implication of this economic approach is that the effect of the merger on the merging firms does not tell the whole story. Non-merging rivals will react to the merger and raise their prices, resulting in a new equilibrium. In other words, when firms compete on prices, the final equilibrium effect will exceed the direct effect on the merging parties.[17] In the end, there are two effects: the initial effect on the merging parties and the final equilibrium effect when the full set of reactions and counter-reactions has occurred. It is the equilibrium effect that affects consumers and thus captures the effect of the merger on competition.[18] A merger test—such as the dominance test—that focuses almost exclusively on the market power of the merged firm may thus not fully capture the full equilibrium effect. It is important to realise that these equilibrium effects do not arise from any collusion between firms, or from any trade-off of future/current profits; it is simply a change in the competitive equilibrium.

Manifestations of equilibrium effects beyond the above example arise in other, less publicised but potentially empirically more relevant scenarios. Examples include:

- *Elimination of potential competition*: a single potential entrant exercises a constraint not on any individual incumbent firm, but more generally, on all members of the oligopoly. A pre-emptive takeover of the potential entrant by

[17] In markets where products are relatively undifferentiated and capacity primarily distinguishes firms and shapes the nature of their competition, the concern is the opposite. The merged firm may find it profitable unilaterally to raise price and suppress output. The merger provides the merged firm with a larger base of sales on which to enjoy the resulting price rise and also eliminates a competitor to which customers otherwise would have diverted their sales. Intuitively the incentive to raise prices is higher than in the case of price competition because the products of the merging firms are not just close but perfect substitutes. However, although its rivals are expected to raise their prices as a rational response to what the merged firm will likely do, they will actually be taking advantage of the price rise by maintaining or increasing their own outputs. If they or a group of new entrants had sufficient capacity, output would be expanded by the merged entity's competitors partially offsetting the merged firm's own output contraction. Thus, unless rivals are capacity constrained, there is a risk of overstating the ultimate effects of the merger if the reaction of competitors is not taken into account.

[18] See J Tirole, P Rey, B Jullien, P Seabright and M Ivaldi, "The Economics of Unilateral Effects", IDEI Working Paper No 222 (DG Competition, European Commission, 2003).

an incumbent will allow all members of the oligopoly to raise prices even if there is no market leader and no possibility of tacit collusion.

- *Control of entry barriers*: similar equilibrium effects arise when an incumbent acquires control through merger of a barrier to entry or is able to influence access to the market. A prominent example is that of a non-dominant firm acquiring control over a small innovative rival to prevent or delay the introduction of a new product. By softening competition in the market this benefits the acquiring company and all other incumbents. However, it may not be possible to argue that the merger creates or strengthens dominance in a meaningful sense.
- *Raising rivals' costs*: various other possibilities arise in the context of non-horizontal mergers. Vertical integration can harm consumer welfare considerably even if none of the merging firms is dominant per se in their respective markets. For instance, when an upstream firm merges with a downstream firm, the upstream firm has less incentive to engage in price-cutting competition with other upstream firms in order to serve non-integrated downstream firms. As a result, the rival upstream firms can charge higher prices for their inputs, other things being equal. This raises the costs of the unintegrated downstream sector, which must increase their final good prices to keep the same profit margin. The integrated downstream firm, by raising its prices accordingly, can make higher profits. The end result in that final goods prices have gone up, total producer surplus has gone up and consumers are worse off. A monopoly that integrates downstream may have the ability and incentive to raise its downstream rivals' costs. This can lead to significant price increases downstream even if the merged entity falls short of acquiring downstream dominance.[19]
- Other theories of harm operating through the equilibrium effect relate to (i) mergers that reduce buyer power, by allowing a better segmentation of the market for price discrimination purposes; (ii) mergers in network markets that tip the market towards a standard that favours incumbents; or (iii) mergers that allow the joint control of an essential facility.[20]

[19] Most such mergers can hardly be said to strengthen upstream dominance. In the case of a monopoly integrating downstream, such a possibility does not even exist.

[20] The SIEC test is more flexible than the Substantial Lessening of Competition or SLC test, adopted by the US agencies. By identifying a strengthening of dominance explicitly as a possible instance of a significant impediment to competition, the SIEC test provides a clear basis to challenge harmful mergers that the SLC test might not be able to stop. This is because "strengthening" could be taken to include more than simply an increase in market power; it could be interpreted as putting more weight on preserving existing levels of market power or other harmful effects that cannot easily be modelled in market power terms. For instance, one scenario concerns markets where a series of small mergers is taking place. Here each individual merger may not in itself lessen competition substantially yet the cumulative anti-competitive impact may be large.

With regard to efficiencies, it is unlikely that false negatives will be avoided by the new merger regime. This is because the burden of proof with regard to efficiencies has largely been put on merging the parties. There are, of course, good reasons for doing so, but it is nevertheless unlikely to help reduce under-enforcement of very inefficient mergers.

2. Fewer False Positives

The new test focuses on the merger-induced changes to the competitive environment, not on whether the merged entity reaches an intolerable level of market power. Put another way, the SIEC test directly measures the "delta", ie the degree of change in the dynamics of competition posed by a merger, while the dominance requirement in the old test in essence measures how much competition is left over, as opposed to how much has been lost. SIEC was also a condition under the old test but, as discussed above, problems of interpretation and the central role played by dominance meant that in practice mergers could be challenged on structural indicators alone. By eliminating dominance as a necessary condition, the new test focuses more directly on the principal economic question raised by a merger, namely whether competition is likely to be reduced. Such an effects-based approach should lead to a reduction in the number of false positives, ie the prohibition of pro-competitive mergers. Examples include:

- *Distant substitutes*: the Commission may find it easier to authorise mergers involving firms selling products which are very different, even if the merged entity will have the largest share in the market.
- *Efficiencies*: when efficiencies are large enough—in particularm larger than assumed by the 'concentration privilege'—parties should have an incentive to bring forward efficiency claims whenever there is convincing evidence that they satisfy the condition outlined in the Merger Guidelines. As a result, overenforcement is likely to be reduced.
- *Mergers that create countervailing buyer power vis-à-vis dominant buyers*: the Commission has in the past taken due consideration of countervailing buyer power but not as a way to dismiss concerns with the creation of upstream dominance. Yet it is ironic that if the merged entity actually does acquire dominance (ie increases its selling power substantially) this may reduce the ability of a downstream monopsony or oligopsony to constrain input purchases. As in the case of efficiencies, the old test could have accommodated this possibility because dominance was not sufficient in itself to render a merger anti-competitive. However, the new test places the emphasis on assessing the competitive effects of the merger, allowing for a more effective distinction between the impact on the downstream buyer and the impact on the ultimate consumers.

- *Mergers with a de-minimis impact*: most mergers involving dominant firms lead to a strengthening of dominance. Furthermore, a merger may increase market power marginally to the level of dominance. Often the impact on competition of such mergers will be *de minimis*. This will be the case particularly in very small markets. Emphasis on identifying significant effects will allow the Commission to dismiss concerns in such markets more effectively without deterring broadly beneficial mergers.
- *Mergers where single dominance replaces collective dominance*: in a market where firms coordinated behaviour pre-merger, a merger may so disrupt the market as to render further coordination impossible. This would be particularly so if the merged entity reached a position of single dominance. Under the old test the tendency would be to challenge such mergers on the basis that the merger creates dominance. However, such mergers may be pro-competitive on balance since it is preferable that any coordination is by only a subset of firms (ie the merging parties) rather than all firms (tacitly).

D. The Impact of the New Test—Some Early Evidence

We now turn to the empirical assessment. As we stated above, we do not consider the evidence we present below to be conclusive for a number of reasons.

First, the Commission's movement towards an effects-based approach in merger control has been gradual and started some time before the new test and the merger guidelines were adopted. In several earlier decisions the Commission emphasised the importance of the closeness of substitution, either to establish that a merger involving firms selling close substitutes may lead to a significant increase in market power—despite low market shares—or, conversely, to reject claims that a merger involving firms selling distant substitutes would raise concerns—despite high market shares. Even before launching the Merger Review there was some internal debate on the scope of the dominance test. Several cases were cleared in the absence of dominance or coordination despite suggestions that the equilibrium effects might have been significant.[21] Moreover, the Commission published several studies on the issue of efficiencies,[22] and its 2002 Green Paper hinted at the need to take efficiencies more explicitly into account.[23] This indicates that in the past few years the Commission has

[21] See, eg Case COMP/M.2389 *Shell/Dea*, Case COMP/M.2533 *BP/EON* or Case COMP/M.1524 *Airtours/First Choice*.

[22] Röller *et al*, *supra* n 16, and J Stennek and F Verboven, "Merger Control and Enterprise Competitiveness: Empirical Analysis and Policy Recommendations" (2001) 5 *European Economy, Reports and Studies* 129.

[23] *Green Paper on the on the Review of Council Regulation (EEC) No 4064/89* (European Commission, 2001).

increasingly deviated from a structural approach to merger enforcement. This process was further strengthened with the adoption of the new test and guidelines in May 2004, yet triggered no revolution in enforcement.

Secondly, the process just described is likely to be gradual. Case-handlers, new and experienced, need to adapt to the new regulation and the merger guidelines. To focus on competitive effects, more knowledge of industrial economics is needed. Market definition and market share remain important but not central to the assessment. Instead, the market investigation must be geared towards an analysis of the economic rationale for the merger and the likely conduct post-merger by market participants. Investigative techniques need to be adapted to the new focus on competitive effects. Furthermore such effects are to be assessed against the most likely counterfactual arguments. As with any policy change, the process takes time, and involves a learning curve.

Given the above considerations, we can conduct an exploratory analysis of the new test by formulating two hypotheses as follows.

> **Hypothesis 1 ("the gap"):** *The new test has reduced false negatives by focusing on the equilibrium effects of the merger. In particular, dominance is not necessary.*

> **Hypothesis 2 ("the clarification"):** *The new test has (unequivocally) shifted the emphasis away from structural indicators towards competitive effects. In particular, dominance is not sufficient.*

The first hypothesis is confirmed if the Commission challenges a merger which threatens to increase prices significantly (or otherwise reduce consumer welfare), even though it does not create or strengthen dominance. Hypothesis 1 is thus confirmed by evidence of a gap case, in which case the new test has clearly made a difference.

The second hypothesis is less clear-cut in terms of identifying the impact of the new test, because it relates to the Commission's interpretation of the old test and whether there was a need to clarify it. Hypothesis 2 is supported by evidence of a case where the Commission clears a merger even if it creates or strengthens dominance. Whether such evidence suggests that the new test changed anything is a matter of interpretation. If the old test was to be implemented in line with a proper two-tier test, and this was clear, then evidence in support of hypothesis 2 does not indicate that the new test has had any impact. On the other hand, if a proper two-tier test was not in fact implemented in practice, then evidence for Hypothesis 2 implies that the new test does make a difference.

Our sample of cases in listed in the Appendix. We look at cases notified under the new test between 1 May 2004 and 12 October 2005, and restrict ourselves to those cases where competition concerns were identified. This leaves us with 23 cases out of a total of 425, or just over 5%. Of those cases in our sample, 18 were cleared in phase 1 subject to remedies, while the remaining five cases required an in-depth investigation. There were no prohibitions during this period.[24]

We have focused on challenged merger notifications under the new test because we believe that this allows us to address the two hypotheses without going into an exhaustive analysis of all cases. By focusing on challenged mergers we are able to address the first hypothesis directly, namely that the new test has made a difference by covering the gap. Regarding hypothesis 2, unconditional clearances will undoubtedly contain relevant information, but we believe that looking at challenges still reveals some data. This is because if the Commission was concerned with challenging a benign merger it would explicitly dismiss possible defences, in particular efficiencies. Moreover, analysis of mergers notified under the old test will allow for a deeper analysis of both hypothesis, through, for example, systematic econometric evidence. This is clearly an area in need of further work before a final conclusion can be drawn.

Before discussing the two hypothesis in more detail, let us make one preliminary observation. The evidence in our sample suggests that the Commission has only departed from dominance in a few cases. Single and collective dominance continue to be the pillars of competitive harm. Of the 23 cases in our sample, five concern collective dominance and 13 concern single dominance. In three cases—*J&J/Guidant*, *Siemens VA Tech* and *Lufthansa/Swiss*—dominance was less important, with the analysis emphasising equilibrium effects. In *Bertelsmann/Springer* the focus was on the potential of the merging parties to raise prices (with no reference to either dominance or SIEC), while in *Total/Gaz de France* the concern was with impeding access to an essential facility. *Total/Gaz de France* is worth mentioning as possibly the Commission's first decision where the word "dominance" is not mentioned at all.

1. Evidence on Hypothesis 1: the Gap—Dominance is Not Necessary

As already mentioned, dominance continues to play an important role in most cases, and in particular in phase 1 cases. The Commission appears to rely less on dominance in phase 2 cases. We conjecture that this is because the Commission feels less comfortable with problematic cases in the absence of clear indications of dominance. This may prompt a phase 2 investigation. Merging parties may also be more familiar with the concept of dominance and thus better prepared to offer clear-cut remedies, thus preventing a costly and lengthy second phase. In any case, it seems neither the Commission nor outside practitioners are yet

[24] Case COMP/M.3440 *EDP/GDP/ENI* was prohibited in December 2004 and was notified under the old test.

confident that anti-competitive effects in the absence of dominance can be dealt with in phase 1.

A possible exception is *Lufthansa/Swiss*. In this case the Commission made no reference to the creation or strengthening of dominance. Instead, it argued that Swiss is a direct competitor of Lufthansa and that the acquisition would thus eliminate or significantly reduce competition in a number of intra-European routes. It also argued that the source of market power in this market derived from ownership or access to a sufficient number of slots. Consequently, remedies involved the sale of a number of slots to a potential entrant. No additional assets associated with serving a route were deemed necessary. Nevertheless, this case is not likely to be a gap case. Lufthansa/Swiss enjoys very high market shares in the affected routes and entry would be very unlikely in the absence of remedies. Arguably, then, the merged entity could have been declared dominant and the Commission would probably have followed this route under the old test.

In *Siemens/VA Tech* the Commission came closer to challenging a merger which could not be challenged under the old test. In the market for mechanical metallurgy and plant building there were three main competitors pre-merger: SMS, VA Tech and Danieli. Siemens was not present in this market but had a minority shareholding with no control in SMS. By allowing Siemens to take control of VA Tech, the merger would have resulted in a substantial weakening of competitive pressure exerted by SMS on VA Tech, given Siemens' participation in SMS. Of relevance here is that the Commission acknowledged that market shares were of limited importance, as firms competed to win individual bids. Instead, the Commission emphasised the fact that SMS and VA Tech were closest competitors. All this might indicate that dominance was not necessary in this case. On the other hand, the Commission also relied on the fact that SMS and VA Tech appeared to be the market leaders in a strongly concentrated market. As a result, it is possible that the Commission would also have challenged the merger under the old test, arguing that the merger would allow VA Tech to acquire dominance.

Overall, we find no horizontal merger in our sample which could clearly constitute a gap case. As a result, there is little evidence to date in support of Hypothesis 1 in horizontal mergers.

With regard to vertical mergers, we find that the Commission was less reluctant to assess equilibrium effects. In *Apollo/Bakelite* the Commission considered that the merged entity would leverage its dominant position upstream in monofunctional ester (Cardura®) to increase its market power in formulated systems downstream. According to the Commission, since Apollo was not active in formulated systems, its incentives to supply Cardura® to Bakelite's competitors would likely change after the transaction. Such conduct would have reinforced Bakelite's already strong position (30–40% market share) in this market. What is noteworthy in this case is that the Commission argued that the merger would not allow Bakelite to acquire dominance downstream, as would be expected under the old test. Instead, the Commission indicated that the vertical effects would reinforce the market position of Bakelite—an approach more in line with an equilibrium effects analysis.

In *Honeywell/Novar* the Commission considered possible input foreclosure effects in the market for fire alarm systems in Scandinavia. In this case, Honeywell supplied smoke detectors to ESMI, a subsidiary of Schneider, which in turn was competing with Novar on the market for fire alarm systems. Thus, following the merger, the main upstream component supplier would become a competitor on the market for systems downstream. The Commission assessed whether Honeywell would have the possibility and incentive to squeeze out of the market those system suppliers who depended on the merged entity for its component supplies, in particular ESMI (eg by increasing the price of detectors). The Commission dismissed such concerns on the basis that a significant increase in the price of fire detectors would be unprofitable for the merged entity, because ESMI could find alternative suppliers and it was not a close competitor of Novar. The analysis had an obvious "equilibrium effects" flavour but, since the input foreclosure concerns were ultimately dropped, this case does not constitute a "gap" case.

More recently, the Commission challenged the merger between E.ON and MOL in Hungary (this merger was not included in our original sample). MOL enjoyed a quasi-monopoly in the supply of wholesale gas and E.ON has a strong commercial presence in downstream markets. The Commission argued that the merged entity would have the ability and incentive to raise the cost of access to wholesale gas to rivals downstream. The evidence suggested that the potential losses from reduced sales at the wholesale level would be more than offset by increased gas prices in retail gas markets. Thus the merger would likely lead to SIEC even though there was no evidence E.ON would acquire a dominant position downstream. It thus appears that this case is possibly a "gap" case.

Overall, with regard to vertical mergers, we find that in several cases explicit equilibrium effects analysis in the assessment of the competitive effects is undertaken. In addition, we find that there is at least one case that is likely to be a gap case. As a result, we find some evidence in our sample in support of hypothesis 1.

2. Evidence on Hypothesis 2: the Clarification—Dominance is Not Sufficient

As mentioned previously, dominance remains the most common way to establish serious concerns about the effects of mergers. Within our sample, we find no cases in which the Commission considers the possibility that the creation or strengthening of dominance might in itself be insufficient to raise competition concerns.

Specifically, dominance is often based on high market shares (and occasionally entry barriers). For instance, in *Pernord/Ricard* the Commission argued that the merger created or strengthened a dominant position in a number of markets—based essentially on a combined market share above 50% (and the overlap above 5%). However, there are cases where high market shares are not decisive. In *Bertelsmann/Springer* combined market shares are above 50% yet the joint venture was cleared without remedies after an in-depth investigation. According to the Commission, competitors within and outside Germany were able to shift, free or expand capacity, and thus exercise a competitive constrain on the joint venture. In the accessory market in *Johnson and Johnson/Guidant* high market shares (sometimes above 70%) were not deemed a problem because of product homogeneity and lack of capacity constraints.

Although dominance is decisive and frequently based on high market shares, the Commission's analysis has moved towards a more effects-based approach. For instance, in one market in *Bayer/Roche* (topical antifungals), the Commission argued that "the parties' very high combined market share, the significant competitive overlap and the low market shares of the remaining competitors by themselves raise serious doubts". In contrast, in another market (plain antacids in Austria) the combined market share was 55–60%, with a 10–15% overlap, yet no concerns were raised since any attempt to raise prices would have allowed other substitutes to capture market share. Such tension between a dominance-based and an effects-based analysis is also present in other cases. In *Reuters/Telerate* the Commission dismissed concerns with creation of dominance in the market for real-time data. However, without making any reference to dominance, it raised concerns in the market for market-data platforms, where Reuters has more than 85% share and Telerate less than 5%.

An important development is that in a few cases a position of dominance was established on the basis that the merging parties were closest substitutes. For instance, in *Novartis/Hexal* it was argued that the merger would create a market leader and that the concentration would combine two products which a substantial number of consumers would regard as their first and second choices. Thus, the Commission argued that, due to the high combined market share of the parties and the diminished competition between the two remaining players on this market, the concentration would threaten to create a position of single dominance. In a way, this subsumes the analysis of equilibrium effects under the concept of dominance.

Efficiencies continue to play a negligible or hidden role in either phase 1 or phase 2 merger investigations. A notable exception was *Procter&Gamble/Gillette*. In this case, the Commission acknowledged that "enlarging the product portfolio might bring efficiencies to retailers and customers, for example benefits from having only one partner to negotiate with [one-stop shop], suppliers having stronger innovation capacities, and economies of scale and scope".[25] However, countervailing buyer power rather than efficiencies tilted the balance against portfolio effects.

Overall, the evidence regarding Hypothesis 2 is somewhat mixed. Competition concerns continue to be associated with the establishment of dominance in most cases, and dominance, once established, appears sufficient to challenge a merger. On the other hand, dominance is often dismissed if firms are distant competitors even if market shares are very high. This suggests that dominance remains a sufficient condition, yet more than just high market shares are necessary to reach a finding of dominance and to challenge a merger—such as when merging firms sell distant products. The implications of such an approach for efficiency claims is hardly surprising. There is little incentive for merging parties to bring forward efficiency claims. If efficiencies cannot trump a finding of dominance, it is best to focus on rebutting such a finding.

E. Conclusion

This paper assesses the impact of the new merger regime, which became effective on 1 May 2004. Even though it is too early to come to definite conclusions, we assess the available evidence to date and ask whether there are any signs that the new test has made a difference. As expected, there is no evidence of a radical change in the way the Commission assesses the competitive effects of mergers. However, there is strong evidence that indicates a process towards emphasising those relevant market characteristics that are indeed consistent with an effects-based equilibrium approach to merger control.

In particular, with regard to horizontal mergers, there has been no clear-cut gap case. Competition concerns continue to be associated with the establishment of dominance in most cases and, once established, dominance appears sufficient reason to challenge a merger. However, more than just high market shares are necessary to reach a finding of dominance. With regard to vertical mergers, we find several cases where an explicit assessment of equilibrium effects is undertaken. In addition, we find that there is at least one case, which is likely to be a gap case, indicating that the new merger test did have an impact.

It is argued that the current approach leaves little incentives to merging parties to bring forward efficiency claims. If efficiencies cannot trump a finding of dominance, it is best to focus on rebutting such finding. Further progress is

[25] In *Lufthansa/Swiss* the merging parties were concerned that the remedies could undermine some of the efficiencies the merger was expected to create. It seems the Commission might have taken account of this possibility in assessing the impact of the remedies even though this is not explicitly addressed in the decision.

needed as regards efficiency analysis. Parties should be encouraged to explain the possible efficiency motivations for their mergers and efficiencies should be the basis to clear an otherwise anti-competitive merger or to reduce the scope of remedies.

So has the new test had an impact? We submit that the evidence would suggest an affirmative answer at this point. The new test directs attention to the competitive effects of the proposed merger. Even though the Commission had gradually embraced an effects-based approach under the old test, the SIEC test has reinforced this trend.

Appendix—Evaluated Cases

Phase 1 Cases Approved with Conditions and Obligations

M.3863—*TUI/CP Ships*
M.3829—*Maersk/PONL*
M.3817—*Wegener/PCM/JV*
M.3779—*Pernod Ricard/Allied Domecq*
M.3770—*Lufthansa/Swiss*
M.3765—*Amer/Salomon*
M.3751—*Novartis/Hexal*
M.3732—*Procter & Gamble/Gillette*
M.3692—*Reuters/Telerate*
M.3686—*Honeywell/Novar*
M.3680—*Alcatel/Finmeccanica/Alcatel Alenia Space & Telespazio*
M.3658—*Orkla/Chips*
M.3593—*Apollo/Bakelite*
M.3570—*Piaggio/Aprilia*
M.3558—*Cytec/UCB—Surface Specialties*
M.3544—*Bayer Healthcare/Roche (OTC Business)*
M.3465—*Syngenta CP/Advanta*
M.3410—*Total/Gaz de France*

Phase 2 Cases

M.3687—*Johnson & Johnson/Guidant*
M.3653—*Siemens/VA Tech*
M.3436—*Continental/Phoenix*
M.3431—*Sonoco/Ahlstrom/JV*
M.3178—*Bertelsmann/Springer/JV*
M.3696—*E.ON/MOL*