



# Reforming European Merger Review: Targeting Problem Areas in Policy Outcomes

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**Abstract.** This paper is an attempt to derive priorities for the reform of European merger policy from observed problems with decision making in merger cases. We identify problems in the application of theory and empirical method as well as the impact of resource constraints and the potential for systematic decision bias. In contrast to the intense debate about the merits of a switch from a dominance criterion to a significant lessening of competition test, we find that such a switch would not effectively address any of the problems in Commission decision making on mergers. Similarly, the lack of an efficiency defense does not seem to explain any of the weaknesses of European merger policy. In contrast, we find that most of the problem areas identified in current merger control practice can be effectively addressed by reforming the merger procedure, the internal organization of merger control in the Commission, as well as addressing resource issues. Together with carefully crafted merger guidelines these should have strong priority for the reform of merger policy in Europe.

## 1. Introduction

After more than a decade of European merger control, the European Commission has embarked on a widely debated, comprehensive review of the Merger. In a Green Paper, published in December 2001, the Commission has made a number of suggestions for possible changes in jurisdictional matters, in the substantive tests used for merger control, and in the administrative process. All of these have been discussed intensely in recent months in a broad consultative process. In particular, arguments about the benefits and costs of consolidating proceedings in multiple jurisdictions, the merits and demerits of changing to a US style “significant lessening of competition (SLC) test,” and the question whether there are systematic flaws in the administrative system of merger policy have played a prominent role in the discussion.

In this paper, I attempt to address these issues from a somewhat broader perspective, stressing the interrelationships between different potential substantive, administrative, and jurisdictional changes. Such a broader view also allows one to discuss where the priorities for reform efforts in European merger policy should lie. Such a discussion must

\* The author is grateful to Bill Bishop, Tim Bresnahan, Alec Burnside, Cristina Caffarra, Kirti Metha, and Damien Neven for detailed comments on earlier drafts of this paper. The author has worked as an expert for Honeywell in their appeal against the GE/Honeywell decision and for Norske Skog in UPM Kymmene/Norske Skog/Haindl. He has helped in advising Sun in Microsoft/Telewest. The author’s knowledge about other cases discussed is based only on public information. The opinions expressed are my own and reflect in no way the views of the above mentioned firms or the individuals who have commented on this paper.

first identify the potential problem areas in the current practices of European merger policy in order to target reform proposals to those areas where substantial improvement is possible.

There should be no doubt that the introduction of a European merger policy has been a big step forward for merger control in Europe. Initial fears that the Commission would be a less effective watchdog than some of the older national authorities have in my opinion been entirely refuted by practice. Indeed, I believe the Commission has helped to greatly enhance the rigor of merger review in Europe. Nevertheless, there are important indications that not all is well in the implementation of European merger rules. The sharp increase of cases taken to the European Court of First Instance can be seen as an indication for growing dissatisfaction in the business community and of practitioners with decision making at the European Commission. This interpretation is particularly plausible because the incentives for firms to seek judicial review are extremely small in the European system. The review procedure takes so long that the initially proposed merger opportunity has typically passed by the time of a judgment.<sup>1</sup> The tangible benefits for firms like Airtours or GE from winning their appeals must be considered negligible.

A further indication for serious substantive issues in European merger policy arises from the recent Airtours judgment of the Court of First Instance. This judgment was not primarily concerned with clarification of concepts (as for example in Kali and Salz, or Gencor/Lonrho). Instead it severely criticized the theoretical framework applied and the use of evidence in the case. Indeed, some of these concerns closely mirror issues in other disputed cases like GE/Honeywell. The unprecedented attacks by US authorities on the policies of the Commission in the context of the GE/Honeywell merger add to the impression that there are unresolved issues concerning the validity of substantive merger analysis at the European level.

From an economic point of view we can identify at least five central issues that could give rise to such dissatisfaction. First, there may be flaws in the theoretical framework for merger analysis that systematically generate bad decisions. Second, the empirical assessment of markets in light of the theoretical framework may be unsound. Third, resource constraints on the Commission may simply lead to a higher rate of error as the caseload has expanded over the last ten years. Fourth, the review process may be captured by interest groups or biased for other reasons. Fifth, the remedies imposed in specific cases may be inadequate for the competition concerns identified or impose disproportionate costs on the merging firms.

I will discuss these themes in detail in Section 2. There I attempt to analyze the progress and remaining and emerging problems for each of the central issues I identified.

1 The introduction of fast track decisions has not materially changed this for the first two cases that have occurred. In the cases in which fast track was achieved, uncertainty about the actual time delays has been significant. The most optimistic estimate for a final decision in the Tetra/Sidel case would imply a 9 month waiting period between the submission of the initial appeal and the decision by the court. Adding in time for the preparation of the appeal plus the initial time of the EU merger procedure generates a waiting time of at least a year for final decisions on disputed mergers. That appears significantly longer than under the US procedure.

For this discussion it is instructive to look back at the early stages of EU merger policy. A systematic study of the decisions from September 21, 1990 through March 25, 1993 by Neven, Nuttall, and Seabright (1993) provides a useful benchmark for the current state of EU merger policy. The comparison shows that we have come a long way since 1993 in improving European merger policy. The Commission has attempted to address the deficits in market definition through a notice that is based on some economically sound principles. Even if current practices are not always satisfactory, the Commission's notice on market definition has significantly strengthened the role of rigorous economic analysis in merger cases. There is no question anymore that mergers should be evaluated according to consistent economic criteria and that merger assessment should focus on the impact of mergers on market power. This general attitude has led to considerable convergence of merger policy between Europe and the United States. Another area of significant improvement comes in form of diminished concerns about regulatory capture of the Commission by the merging firms or by industrial policy concerns of member states (see Neven et al., 1993).

However, some of the issues facing us today are strikingly familiar from the report by Neven et al. First, these authors voiced serious concerns about the way the Commission uses evidence to support arguments in merger cases, arguing that the Commission relies "excessively on qualitative judgment and hunches where more quantitative and structured analyses are possible." The recent *Airtours* judgment has brought this issue again to the center of complaints about the EU practice of merger assessment. Recent critiques have also focused on other facets of speculative reasoning in merger cases. For example, the Commission has been quite willing to entertain a large set of theories to question mergers even when the theories themselves did not have sound support in established economic research nor where strong empirical evidence supported the importance (in terms of order of magnitude) of the claimed theoretical effects in real markets. All of this is of particular concern in a context in which the resources for a rigorous analysis are rather stretched due to the large increase in merger volume experienced in recent years. Indeed, this resource problem has led the Commission to, often heavily, rely on the economic expertise contracted for by intervening parties in merger cases in order to construct arguments to block mergers. An automatic consequence of such practice will be serious concerns of regulatory capture by competitors to the merging firms, replacing the old worries about too cozy a relationship between the merging parties and the Commission.

Section 2 addresses these issues in detail. The rest of the paper discusses how the problems identified in the merger process can be addressed through changes in the substantive analysis, procedures, and jurisdictional allocation. In this context I will discuss both the suggestions in the Green Paper as well as proposals going beyond those narrow confines. Section 3 carefully looks at the substantive issues in merger regulation. I argue that, despite being superficially attractive, the suggested changes to an SLC test and towards an incorporation of efficiency defenses are of low order of priority and potentially damaging for efforts to improve the rigor of merger analysis in Europe. Instead the concepts of unilateral and coordinated effects analysis should be directly enshrined either in the merger regulation itself or established in future merger guidelines.

Furthermore, I argue that an elimination of leverage and foreclosure arguments from merger assessment could greatly reduce the problems of “qualitative reasoning and hunches,” without any significant danger that such a step would increase anti-competitive conduct. In Section 4, I discuss how procedural changes can have the largest impact on the issues of greatest concern. This includes suggestions that lead to greater checks and balances in the process as well as ideas for enhancing the effective transparency of Commission decisions. Section 5 discusses the proposed jurisdictional changes in the light of the substantive problems and their potential solutions discussed in previous sections. I will argue that there is evidence that the substantive problems with merger policy may be more severe in many national jurisdictions than at the level of the European Commission. In Section 6, I summarize the findings and discuss the priorities they imply for the reform of the merger regulation and resulting guidelines.

## **2. Systematic concerns about EU merger policy**

Businesses and practitioners often express their concerns about different issues in the merger process in terms of “fairness” of the process. But many times the word “fair” is used to capture a number of very different issues ranging from a perceived bias on the part of the decision maker to a perception of a lack of serious consideration of the evidence or lack of knowledge of the industry. In this section, I will develop the main concerns I perceive from an economist’s perspective, focusing on how certain aspects of current policy may lead to economically unreasonable merger decisions.

Instead of a systematic review of cases as in Neven et al. (1993), I will focus on the issues raised by some of the recent controversial cases because they highlight the issues of concern. For this discussion it is of little importance whether, in my judgment, these cases were decided correctly. What is essential is whether features of the decision making process could have led to erroneous (or random) outcomes. The purpose of this section is to identify the possible sources for such decision error. This forms the basis for a discussion in later sections about the potential changes in policy that could reduce the potential for such errors.

### *2.1. Does the commission use inadequate theoretical frameworks for its analysis?*

One difficulty in assessing the adequacy of the theoretical framework used in merger analysis is that any competition authority attempting a sound theoretical foundation for its policies has had to shoot at a moving target. This is particularly true for any attempts to include concerns about collusion (or parallel conduct) and foreclosure into preventive merger policy. The field of Industrial Organization has been moving fast in these areas over the last 20 years and the appropriate incorporation of these insights into policy have not really been settled. But even in more traditional areas like market definition the

developments in economics have changed what we would consider an appropriate rigorous review of mergers.<sup>2</sup> These developments in academic thinking have found a reflection in recent policy in three ways. First, there is change in the way in which we think about market definition and unilateral effects analysis that has been driven by new empirical methods. Second, renewed concern about collusion and parallel conduct in the economy has led to a dramatic increase in the use of coordinated effects arguments. Third, the progress in the theoretical literature on foreclosure and leveraging theories has found a reflection in an attempt to systematically use such arguments in merger analysis.

### ***2.1.1. Changes in market definition and unilateral effects analysis***

Significant conceptual change in merger analysis can be seen even in such established areas of economic analysis as the market definition exercise. For many years economists have fully accepted the standard legal approach that a market has to be defined before one can analyze the effects of a merger on market power in that market. This acceptance was driven by the idea that the only observable we had available to assess market power was information on the market share distribution pre-merger. Competitive effects were then primarily determined by looking at the change in market share distribution. It is, indeed, not very long ago that many competition lawyers would see the role of economists in merger cases exclusively as providing the desired market definition. Economic thinking has moved beyond this rigid procedure. The primary reason is that empirical research on the problem of market definition and the effects of mergers has made economists realize that the information needed to determine the unilateral effects of mergers requires as much or less information than an economically rigorous estimation of the market boundaries. This means that it is in principle no more difficult to estimate price effects of mergers directly, skipping the market definition step. Indeed, Bresnahan (1989, footnote 44) goes so far to say that “. . . defining a ‘relevant market’ and calculating market shares in it is senseless.” Such arguments are gaining force because empirical research has developed empirical methods that allow a rigorous quantitative analysis of unilateral effects of mergers (see Baker and Bresnahan, 1985; Hausman, Leonard, and Zona, 1994 and Nevo, 2001). The basic applicability of such methods has been demonstrated nicely in the Staples/HomeDepot case in the United States.

The importance of these developments does not come from a prospect of routinely estimating demand systems in merger cases. We probably should, where it is feasible, but this will be in a vast minority of the cases. The fundamental change in perspective that can be gained from this literature is that the issue of market definition and the issue of determining market power are essentially two sides of the same coin. A sequential determination of market definition and the effects within that market therefore makes little sense taking this perspective. Traditionally, we would have started the analysis with the question “what is the market?.” Quite understandably this led practitioners to argue about functional interchangeability and physical characteristics of the products in

2 No revolution in our view of economics is needed for such developments to have profound impact on the way we do or should do merger analysis.

question. What work like that of Baker and Bresnahan (1985) has really taught us is that it is much more sensible directly to ask the question “Which players are constraining the market power of the merging parties?.”

While an answer to this question will typically yield an answer to the market definition it directly aims at the essence of unilateral effects analysis. The focus helps to determine what type of data can shed light on the central relevant question even when sophisticated econometric methods cannot be used. For example correlation analysis might be used to establish the largest set of firms that have to be considered as potential competitors. Switching studies (and even questionnaires of the type: Which product would you buy if this one you have just bought were not available anymore) can identify the products that are in competition with each other. These are in line with the spirit of rigorous econometric analyses even where those are not feasible based on the data. Such analyses will generate a market definition as a by-product, which is useful because market shares do generate some information about the potential effects of mergers. But market definition should be regarded as part of the general analysis of the competitive effects of the merger.

My impression is that in this area the Commission’s thinking has been flexible enough to recognize the validity of these economic arguments. It appears to be open to the general trend of moving toward a practice of joint determination of market definition and market power instead of insisting on a mechanical two-step exercise of market definition and market share assessment. This does not mean that the Commission’s own market definition exercises are always sound. There are various examples of market definition based on reasoning about the “interchangeability of products” that is not well supported by data. But it does appear that the Commission welcomes more sophisticated analyses when they are submitted by the parties and that such submissions can be very effective even when they do not leave the market definition question fully resolved. In my judgment this amounts to very substantial progress relative to the time before the European Merger regulation was adopted.

### ***2.1.2. Collective dominance analysis***

Much greater problems have arisen in those areas in which the Commission has tried to break new ground and where economically satisfactory practices do not necessarily exist in the United States either. The first important area in this context is the application of a joint dominance concept. From a theoretical perspective this can be seen as a welcome instrument to take concerns about the increased likelihood of undetected collusion or parallel conduct due to a merger into account when assessing market power. In generally accepted language these are usually called the “coordinated effects” of mergers. The problem with the assessment of coordinated effects is that until recently there has not been any systematic theoretical work on the issue. While the basic theoretical framework of collusion theory is well established, it had not been applied to the issues of mergers and asset reallocations before the initial work of Compte et al. (2002) on homogeneous goods markets with capacity constraints and later research by Kühn and Motta (2001) on product differentiated industries. As a result all attempts to incorporate coordinated effects into merger control practice in the past have been theoretically highly unsatisfactory.

This can be illustrated with a simple example. In the United States it was originally thought that changes in the HHI concentration index numbers were also capturing the likely impact of coordinated effects on prices. The recent theoretical research has, however, shown that this is incorrect and that changes in the HHI index are highly misleading for a coordinated effects analysis (see Kühn, 2001b, 2002 for a discussion). While the HHI interprets an increase in the dispersion of market share as a sign of increased market power, the theoretical analysis shows that with greater market share dispersion collusion should be considered less likely.

The Commission's approach has been to implicitly appeal to collusion theory through a checklist for factors considered to facilitate collusion (essentially based on the discussion in Scherer and Ross, 1990). There are fundamental problems with such an approach. First, many of the checklist statements are incorrect in light of modern theoretical analysis or can, at least, not be made in the generality that they are applied. Second, most of the criteria are of a qualitative nature that does not allow any conclusion about the importance of the potential effect on actual behavior on the market. In contrast to unilateral effects analysis in which the impact of the merger can at least in principle be quantified, many of the checklist criteria are not of the form that would allow any empirical test. Third, such criteria overlook the fact that merger analysis has to identify to what extent the incentives for collusion or parallel behavior change as a result of the merger. One of the biggest conceptual flaws in the Commission's approach to coordinated effects has been to generally ignore this last point. The Court of First Instance has recently put its finger on precisely this point as a central flaw in the Commission's decision on *Airtours/FirstChoice*.

These problems have manifested themselves in almost every case of collective dominance the Commission has decided, including ones the Commission presents as sample cases in its 30th report on Competition Policy. There the Commission writes:

In *Alcan/Pechiney*, the Commission's assessment was essentially based on the idea that the merging parties, could use an existing structural link, in this case a joint venture, with a competitor, as a retaliation mechanism to dissuade this competitor from engaging in a price war.

As a result the operation was abandoned by the parties. However, the argument as such is incorrect. While cross-shareholdings and joint ventures can have significant unilateral effects, they will in many cases make collusion more difficult than less (see Malueg, 1992). In contrast, in *Outokumpu/Avesta Sheffield* the Commission argued that, despite some checklist criteria for collective dominance being satisfied, the strong growth of demand was a critical factor in clearing the merger. However, strong demand growth in economic theory makes collusion easier and not more difficult (see Haltiwanger and Harrington, 1991). In neither of these cases is there an argument about the impact of the change induced by the merger on these factors for collective dominance. But as an example from *Airtours/First Choice* suggests this can be a fatal flaw in the argument. In this case the Commission claimed that structural links due to capacity trading between the firms made collective dominance more likely. Even if one

would accept this claim<sup>3</sup>, a careful look at the economic function of capacity trading shows that the need for such trade would fall after a merger. As a result, the scope for collusion would be reduced as a result of the merger if one accepted the initial hypothesis. (see Kühn, 2001b for a more extensive discussion). What these cases show is that a flawed application of collusion theory can potentially lead to cases unreasonably being blocked as well as cases that are approved for invalid reasons.

All of the problems mentioned above rely on misunderstandings of often difficult theoretical work. Indeed, the application of collusion theory to mergers is a thorny issue even in the United States, where economic analysis in merger cases has a much longer tradition and is, arguably, still more sophisticated.<sup>4</sup> But in Europe the development of a rigorous analytical framework for the assessment of coordinated effects has been further hindered by a debate on how unilateral and coordinated effects should be mapped into the concepts of single firm and collective (or joint) dominance. From an economic perspective a creation or strengthening of dominance is nothing else but the creation or strengthening of significant market power. Since unilateral and coordinated effects are the only two relevant aspects of market power it seems immediately obvious that they should be identified with the creation or strengthening of a single firm or collectively dominant position respectively. More importantly, theoretical research suggests (see Kühn and Motta, 2001) that the impact of remedies will often be the opposite depending on whether the anti-competitive effects of mergers are due to unilateral or coordinated effects. It therefore makes little practical sense to group unilateral and coordinated effects under the same dominance concept. The recent *Airtours* judgment makes it now very likely that the analysis of coordinated effects and of a collectively dominant position will be considered the same.

However, some commentators both inside and outside the Commission have asserted that identifying coordinated effects with collective dominance analysis would leave a serious gap in the merger regulation (see Korah, 1999). They claim that single firm dominance is defined so narrowly that many anti-competitive mergers due to unilateral effects could not be prohibited. Even if this were true, which I question in Section 3.1, this would be no good reason to lump both unilateral and coordinated effects under the same concept. The merger regulation only knows the word dominance in any case. It does not distinguish between single-firm or collective dominance. As far as it is generally accepted that dominance is a placeholder for the economic concept of market power, every aspect of significantly increasing market power should therefore be covered under the merger regulation. The only two aspects we know that generate market power through horizontal mergers are unilateral and coordinated effects. If we want to be clear about our economic analysis we want to use terminology that carefully distinguishes between these two potential effects of mergers. A distinction between single firm and collective

3 I believe one could probably construct a story along these lines, although it is not obvious at all that the possibility of stopping the trade input capacity would be a credible punishment mechanism.

4 The US Department of Justice has become sufficiently uneasy about their policy towards coordinated effects that they have begun a systematic review of coordinated effects analysis in the current year.



dominance that is not congruent with this economic distinction can only muddy the waters. In the worst case it can lead to considerable uncertainty as to the actual nature of the arguments in the case and to legal uncertainty as to the actual claims the parties have to address—especially since some of the market features that support a finding of unilateral effects do not support findings of coordinated effects.

### ***2.1.3. The use of foreclosure and leverage theories***

The problems with an appropriate application of a theoretical framework identified in the area of collective dominance apply with even greater force in the area of potential leveraging or foreclosure effects of mergers. This is also the area of most dramatic divergence of merger policies between North America and Europe. The importance of leverage and foreclosure arguments in European merger policy, and the conflict with the United States on this issue, have manifested themselves most dramatically in the GE/Honeywell case. But the soon to be decided Tetra/Sidel case as well as the much earlier Guinness/Grand Metropolitan are among decisions indicating the importance that leverage and foreclosure arguments have achieved in European merger cases.

The use of leverage and foreclosure arguments in merger policy has a much less solid basis in economic theory than the use of coordinated effects analysis. The most important reason is that the state of theory is a very different one in the two areas. In collusion theory, there is essentially a canonical model, which is adapted over and over again to different market settings. The theory as such is accepted and the policy advice flowing from such modeling is just another implication of accepted theory. This is very different for leverage and foreclosure arguments. There are no canonical models that can be readily adapted to any setting. Models depend delicately on the fine details of specific assumptions. Exclusionary and foreclosure effects either depend on very stark assumptions about the market or on incomplete contracts theory, an area of theory in which results crucially depend on assumptions about the contractibility of relevant variables. Leveraging and foreclosure arguments are typically complex enough for academic economists often to disagree as to the interpretation of results or their empirical implications. This is not to dismiss the possibility of valid leverage and foreclosure arguments. However, the theoretical framework for such arguments is much more complex than that for unilateral and coordinated effects analysis. Specific applications of the available theories to the specific case at hand are difficult to work out satisfactorily in the short time frame of a merger investigation.

The severity of the problem of using foreclosure and leverage theories in merger cases is best appreciated by comparing the experience with abuse of dominant position cases in Europe (or monopolization cases in the United States) with that of collusion cases. When there is collusion the observation of specific conduct, like talking about prices, is generally considered compelling evidence that there is at least an attempt at anti-competitive conduct (see Kühn, 2001a). The overwhelming evidence for coordination attempts in a considerable number of prosecuted cases in Europe and North America strongly suggests that collusion is an important problem in concentrated markets. This is a major justification for using the collective dominance instrument as a preventive measure for both undetected collusion and parallel conduct. The situation is very

different in the area of foreclosure and leverage. For any specific practice like exclusive dealing or bundling there are multiple efficiency explanations that would support a pro-competitive interpretation against any anti-competitive theory. Whether anti-competitive or pro-competitive effects are likely in any specific setting is extremely hard to verify on the basis of available data. In the United States, for example, historically important foreclosure cases would probably not be prosecuted today due to concerns about potential important efficiency effects of intervention.<sup>5</sup> The Microsoft cases in the United States and Europe are among the few foreclosure cases that have a fairly strong evidentiary basis. First, foreclosure effects appear particularly robust in theory due to the network effects at the level of applications software. Second, the data the market evolution appears consistent with foreclosure effects. Such historical data is usually not available in other foreclosure cases. Third, and possibly most importantly, the US proceedings have revealed very strong evidence of intent on the side of Microsoft. It is quite likely that the Department of Justice would have had a much weaker case in the absence of such evidence for intent. Most foreclosure cases I have seen in practice or in the literature have presented a much weaker case.

Indeed, there is no evidence that, except in very specific cases and with a very specific record of abuse, one can expect widespread use of bundling or exclusive dealing for anti-competitive purposes. Furthermore, foreclosure or leveraging effects can only occur under very limited circumstances. As in predatory pricing models, exclusionary behavior typically requires a loss of profit by the excluding party that has to be compensated by a prospect of reduced competition in the future. Hence, any anti-competitive finding has to include a well-documented story why exclusive dealing or bundling would make the current competitor a weaker competitor in the future. Since we expect bundling, tying and exclusive dealing to occur very frequently for strong efficiency reasons that are associated with price reductions for final customers, it does not appear to be a good policy to consider such strategies by default as anti-competitive.<sup>6</sup>

In merger proceedings foreclosure and leveraging arguments are even more difficult to make. The potentially exclusionary behavior is usually not observed yet, so any application of such theories in practice requires a reasoned prediction that the behavior in question will be adopted and will be adopted with the aim to generate anti-competitive foreclosure or leveraging effects and not be adopted for reasons that are pro-competitive. Judging from the experience with anti-trust cases on foreclosure this appears an exceedingly difficult task.

Given the complexity of the subject it is not surprising that the Commission has repeatedly adopted invalid theoretical arguments in recent cases in which the decision was based at least in part on claims about leverage and foreclosure. First, it is often

5 For example, the Paramount case in the United States in which specific forms of exclusive dealing were prohibited would be treated quite differently today, where good efficiency explanations for the practices have been put forward in the literature.

6 This discussion does not cover vertical mergers. Since I am not aware of any vertical mergers that would allow a review of the Commission's policy, I will defer a discussion of this issue to Section 3.4.

difficult to make out the precise theoretical argument underlying the claims of the Commission. Second, and as a result of the first problem, the Commission often does not draw valid empirical implications from the theoretical framework used. These problems are common to this whole class of arguments whether they are couched in terms of “portfolio effects,” “financial strength,” or bundling.

#### **2.1.4. Portfolio effects**

The oldest example in this problematic category of foreclosure and leverage arguments is the assertion of “portfolio effects.” Portfolio effects are sometimes argued to exist when firms join product lines through a merger. Such joining of product lines will always have obvious unilateral market power effects because competing products are sold by the same firm after a merger. But this effect is precisely what is covered under a standard unilateral effects analysis in a market with differentiated goods and there is therefore no need to create the concept of a “portfolio effect” as a separate criterion. Similarly, the impact of combining product lines on coordinated effects can be analyzed (see Kühn, 2002). Indeed, the general theoretical analysis in Kühn and Motta (2001) (which addresses precisely this problem) shows that the lengthening of the product line will often reduce the scope for collusion and even reduce prices. Again, there is no reason to make arguments about the length of the product line outside this framework.

The only motivation why one might be concerned about portfolio effects as a separate argument from standard unilateral and coordinated effects analysis is therefore that the lengthening of a product line might have a leverage or foreclosure effect. Economists have tried to rationalize the term “portfolio effects” as referring to foreclosure or leverage effects of bundling or tying, and this is certainly one category also mentioned by the Commission.

But a closer look at the use of the “portfolio effect” argument shows that it does not necessarily refer to bundling alone, but includes other, so-called “naked range effects.” For example, in Guinness/Grand Metropolitan the Commission only briefly mentioned bundling and instead attributed portfolio effects either to bargaining advantages or (implicitly) to economies of scope on the customer side. However, there exists no published theoretical work that would support foreclosure or leverage or any other anti-competitive effect when bargaining occurs over a longer product line. The assertion in the decision that the threat of refusal to supply is more severe when the product line is larger is not necessarily valid since the cost of effective refusal to supply are also increased. Again there is no theoretical work to my knowledge that carefully investigates this issue. Part of the general problem with the application of portfolio effects “theory” is that it often remains entirely unclear what the exact theoretical basis for claims in a specific case are. For example, the Commission argues in its decision in Guinness/Grand Metropolitan:

[. . .] a deep portfolio of whiskey brands, spread out across various quality and price segments, confers considerable price flexibility and marketing opportunities. Therefore, the supplier is shielded from market pressures, [. . .]

The meaning of these arguments in terms of economics is entirely unclear. The concept of “pricing flexibility” due to a product line is foreign to economic analysis. Economics simply predicts that firms charge optimal prices across products in a product line. Profit maximizing behavior leaves little room for “flexibility.” The sentence might refer to bundling possibilities? But bundling (or tying) normally requires commitment to the price or the discount to have exclusionary effects. I have not seen any work in which the authors have been able to generate bundling effects in an alternating bargaining framework, where such commitments are necessarily limited.

The problem with the Commission’s approach is that the argument might be appealing to any number of theories (including standard unilateral and coordinated effects) with potentially very different implications as to the conditions under which such a theory can be applied. Currently “portfolio effects theory” is a catchall term referring to any unspecified way in which a lengthening of the product line might have foreclosure or leverage effects. This is, however, an incorrect use of theory in the context of merger analysis. The role of theory in any such analysis is to reveal the circumstances under which certain effects can be considered likely. By not tying the argument to any specific theory it becomes basically impossible to test the validity of the claims in any specific market. Vague concepts like “portfolio effects” create legal uncertainty and undermine the ability of merging firms to defend themselves against claims that the merger is anti-competitive. For example, in the current situation it would be entirely possible for an economic expert advising a client to consider every possible theory in the literature that could fit into the portfolio effect category and show that the conditions in the industry did not make the effect possible. The Commission could still prohibit the merger on the basis of portfolio effects theory because there are essentially no limits to the permissible arguments.

#### **2.1.5. Financial strength**

Other popular foreclosure and leveraging arguments that are misused rely on appeals to the financial strength of the merging firms. While theories can be constructed in which the financial position of firms matters, they never rely on the financial strength of the merging parties alone. More importantly, financial strength only matters in models of competitive interaction where some (potentially foreclosed firm) is facing binding financial constraints for financing its operating costs or further investments to maintain its market position.<sup>7</sup> Unless the potentially foreclosing or leveraging firm can push rivals into tighter financial constraints, the sheer financial strength of the company itself is irrelevant to the analysis.

This suggests, for example, that there may be a basic flaw in German competition law that ties dominant positions, among other criteria, turnover benchmarks. First, turnover benchmarks are not indicative of the financial strength of firms in terms of their financial constraints, which is the only relevant concern in the theory. Second, it is the likelihood

<sup>7</sup> Even academic economists sometimes overlook this crucial point in their writings on the role of financially mediated foreclosure.

of rivals facing financial constraints that matters for the assessment of the alleged dominant firm's potential ability to foreclose. But this basic conceptual error has also found its way into European merger policy in the GE/Honeywell decision. First, the decision makes much of the financial strength of GE and its position relative to rivals, but it does not focus on the financial constraints faced by rivals. Second, figures like revenue and market capitalization that are cited as comparison benchmarks for financial strength, do not give any clear indication of the likelihood of financial constraints at all and are therefore not relevant for assessing the plausibility of foreclosure effects. Again we have the problem that theory is not used correctly because the case analysis does not focus on the correct empirical implications of theory.

There is another common thread between portfolio effect and financial strength arguments. Both of these arguments try to tie anti-competitive effects to easily observable market characteristics like product line length or financial statistics. There is an understandable appeal to the use of such statistics for gauging the likelihood of foreclosure in the same way we use market share distributions as critical benchmarks for market power (absent more detailed data). The problem with this is that comparative product line length or financial statistics often contain virtually no information about the competitive problem at hand. While market share tests do—at least to some extent—reveal some information about the likelihood of unilateral and coordinated effects, these other statistics basically have no discriminatory power at all.

#### 2.1.6. *Bundling arguments*

Much of the claims on foreclosure and leverage in merger cases that have recently made the headlines (*e.g.* GE/Honeywell or Tetra Laval/Side) have an explicit appeal to bundling theory as part of the overall argument. The use of bundling theory is a nice example of how very strong conclusions are drawn from arguments that are incomplete with respect to their implications for the possibility of foreclosure or leverage. The first problem is that none of the theory that has been written was designed to answer the question whether in a particular market, in which a firm sells multiple products, the use of bundling strategies is likely or not. But the more fundamental question is always: Could bundling induce significant leveraging or foreclosure effects?

To answer this question I will briefly discuss what happens under bundling. An effective bundling strategy will typically make the bundling firm a tougher competitor vis-à-vis its rivals, but also leads to gains in market share. The result is that competitors will have lower profits. But that does not imply foreclosure or leverage by itself. Smaller margins for competitors do not imply automatically that incentives for  $R + D$  investments are reduced or that competitors will exit the market.<sup>8</sup> But if such exit does not occur, all

<sup>8</sup> To see this suppose that competition uniformly reduces the original price  $p$  a competitor can achieve by  $x$  and suppose that a product innovation increases the price by  $I$ . Then before the merger an innovation generates  $p + I - p = I$  in extra income. After the merger the innovation generates  $p - x + I - (p - x) = I$ , the same income per unit sold. Since demand can be more elastic at lower prices than at higher prices the incentives for innovation for competitors can go up or down or remain the same.

that happens is that competition leads to prices that are lower and closer to average incremental costs. Welfare is increased in such a case.

The problem with the bundling arguments of foreclosure is that none of the bundling theories directly imply any foreclosure effects. Indeed, optimal pricing in these models is above marginal costs so that equally efficient competitors should still be able to compete.<sup>9</sup> In itself the profit reduction for competitors is therefore not enough to find anti-competitive effects.

The arguments linking bundling with foreclosure are indeed very weak in both the Tetra/Sidel and GE/Honeywell cases. In Tetra/Sidel they essentially come down to a claim that bundling might occur and that the Commission claims that competitors cannot “match the merged entity’s product range, customer contacts, financial and market strength” (Regulation No. 4064/89, para 345). The reference to the product range appears to be somewhat circular in the context of portfolio arguments. Sometimes portfolio arguments are justified with bundling. Here the foreclosure effects of bundling are somehow related to a product line length. The economic theory behind this is unclear. We have already shown that the “financial strength” argument does not allow any general conclusions about foreclosure either. A little later the Commission suddenly attributes leverage effects to the threat of predatory pricing. Nowhere in the text have I found any discussion of why predatory pricing should be enhanced through the merger. While I can see that there is a widespread belief that predation gets easier with a longer product line, this is an argument that is neither obvious in economics nor has it been rigorously shown to be valid. Similarly, in Tetra Laval/Sidel or Guinness/Grand Metropolitan, arguments often depend on a discussion of what would happen if the dominant supplier withdrew his service. However, a proper analysis of the problem would have to deal with the issue that the refusal to supply that is supposed to be used as a leverage instrument has to be credible.<sup>10</sup> Foreclosure and leverage theories are so difficult to construct precisely because the strategies to support them like pricing below cost, refusal to supply *etc.* are typically unprofitable in the short term. Simply saying that such a strategy is available to the merging firm does not provide any reason to believe that it is likely to be employed.

The Tetra Laval/Sidel case appears to me rather typical in its broad appeal to a wide range of predation, bundling, financial strength, and refusal to supply arguments, neither of which are sufficiently worked out to identify the market characteristics that would make the presence of these effects more or less likely. Indeed, the fact that the decision alludes to almost everything that has ever been mentioned on foreclosure problems rather suggests that there is no clear theoretical grounding to the position adopted. The presence of complaining competitors who claim that foreclosure effects will be achieved does not lend any greater legitimacy to such an approach. Pro-competitive merger tend to have the

9 This is at least the case for mixed bundling. On the other hand pure bundling, *i.e.* the refusal to sell two goods other than in a bundle is always inferior to such a strategy unless there is a strategic pre-commitment possibility. The latter has to my understanding not been claimed in any of the cases involving bundling arguments.

10 While this is now broadly accepted in applications of collusion theory to competition policy, the same principle holds for arguments of predation, foreclosure, and leveraging.

feature that the merging firms gain (otherwise they would not merge) and competitors lose from increased efficiency of their rival.<sup>11</sup> When competitors complain because they anticipate reduced profits this cannot be taken as strong evidence to distinguish foreclosure effects from potential pro-competitive effects of a merger.

While my assessments on specific cases or arguments of the Commission may not be shared by every industrial economist, the debate and intense disagreement on these issues between leading academic economists and the Commission on merger cases with foreclosure concerns point to a significant problem in this area of merger analysis. At a minimum it can be said that, in contrast to collusion arguments, there simply does not exist any broad consensus as to what the appropriate standard for theoretical consistency should be and how we should judge the broad implications of the theories applied to specific cases involving concerns of leveraging and foreclosure. If at all, there is possibly broad agreement between economists that actual leverage and foreclosure behavior is relatively rare. This is true even in recent years in which research has considerably modified the Chicago School position on the subject. Again this is in contrast to collusion, where the weight of the evidence does indicate significant importance in the real world. The robustness of foreclosure and leverage models is a major concern for policy advice. The current practice of the Commission does not appropriately address these concerns in its use of theories and discussion of their empirical implications.

## *2.2. Empirical substantiation of theories*

From an economic point of view evidence for anti-competitive effects of mergers is nothing else but empirical data that allows one to discriminate between likely anti-competitive effects from a merger in the market and the absence of such effects. I have discussed in the previous section, that there are often significant problems in the theoretical frameworks the Commission uses and that the empirical implications that are attributed to the theory are often invalid. However, there are also, somewhat distinct, issues with the acquisition and use of evidence in itself. The observation made by Neven et al. (1993, p. 77) that the Commission's assessments "rely unnecessarily on qualitative assertions and hunches even when more quantitative evidence could have been made available," is still a valid concern. Furthermore, the presentation of evidence in published decisions at times appears selective and unsystematic, or strong conclusions are drawn from inconclusive evidence. In this section, I will briefly discuss some of these issues in the context of the three main concerns in merger assessment: unilateral effects, coordinated effects, and arguments about foreclosure and leverage.

In the area of unilateral effects of mergers empirical analysis has made the greatest progress. Its power has been demonstrated impressively in the United States in Home Depot/Staples in which the argument for a narrow market of office supply superstores

<sup>11</sup> Neven and Röller (2002) base an empirical evaluation of European merger decisions based on stock market evaluations on this observation.

was rigorously supported by market data. Even where sophisticated econometric methods are not or cannot be used US antitrust authorities have systematically pushed the use of hard data to obtain reasonable assessments of the order of magnitude of claimed effects. In Europe, the only case I am aware of in which empirical assessment was used to determine unilateral effects (Volvo/Scania), the evidence acquired was essentially discarded in the face of strong criticism by economists supporting the parties. This meant that the Commission reverted to qualitative reasoning despite the presence of hard data that should have been assessed in the decision. Clearly, there is often not the data available (especially in the short time span of the merger proceedings) for a state of the art econometric study. However, even in market definition exercises attempts to go past qualitative reasoning about the physical substitutability of products seem to be much more often undertaken by the merging parties or their competitors than the Commission. This means that the Commission most of the time works with data analyses that are filtered by the presentation of interested parties instead of obtaining the important insights about the data generated when one analyzes the data oneself. The instinct not to trust the parties' analyses is then a natural one. However, to improve merger decision making we have to remove decisions as far as possible from a reliance on qualitative reasoning based on plausibility judgments. Such reasoning is very unreliable and often will not stand up to harder data (or even careful theoretical reasoning). The Home Depot/Staples case is a good example. A priori, introspection may make it very plausible that my office supply store around the corner will offer a good substitute to an office supply superstore when I need to buy printer paper. The paper that I buy, after all, is exactly the same. Nevertheless, the data in the case showed that this was not what happened in the market. Demand for a product depends on a host of characteristics that are perceived to be important by customers. This can only be inferred from actual behavior not from a comparison of physical characteristics of the goods in question.

Things are already more complicated in coordinated effects analysis because the criteria for likely collusion that are used are themselves qualitative in nature and not to the same extent quantifiable.<sup>12</sup> But qualitative arguments also easily lead to error because facts are taken as evidence that are not valid evidence for what is relevant in the theory. A good example for this is the way the Commission uses evidence on market transparency in cases with coordinated effects issues. The Commission often simply points to possible encounters between competitors in the market place to show "transparency" and therefore the alleged likelihood of coordinated behavior. However, the question is whether such evidence does indeed suggest that monitoring of rivals' behavior in the market is substantially facilitated.

In *Airtours/First Choice* the Commission argued that competitors would at least in some instances contract with the same hotels, and that this would increase market transparency in such a way as to make coordination easy. The issue was clearly one about

12 This does not mean that quantifiable methods are unavailable. They could be applied following Compte et al. (2002) or the suggestions in Kühn (2002). However, methods are to date much less developed than in unilateral effects analysis and market definition.



coordination in capacities. But clearly such decisions can only be effectively monitored if the firms can be sure that they can distinguish from their observations whether a competitor has deviated from some total capacity commitment or not. Observations of the number of beds contracted for at a handful of hotels would not be sufficient. Indeed, the CFI found that the statement was not supported when looking closer at the contracting practices, and severely criticized the standard of evidence.

These problems appear to be present also in other cases. Routinely small cross-shareholdings or joint ventures are found to facilitate collusion, supposedly because of increased information flows. However, there is never any evidence provided what types of information flows would be likely. For example, even if firms are linked through a joint venture, this does not imply that there are ever any meetings between employees of the firms involved in operational decision making of competitive units. Minority shareholdings may or may not lead to significant information flows depending on the control rights they convey. None of this tends to be analyzed. There is a general tendency in the decisions to interpret terms like “transparency” in a wide sense when looking for evidence, although these terms have a very restrictive and specific meaning in the theoretical framework that underlies the logic of coordinated effects analysis.

In collusion theory there is somewhat of a consensus on the market characteristics that make identify collusion likely. There is much less of that in foreclosure and leveraging theory. There is little consensus of what distinguishes the use of contractual clauses for foreclosure or leveraging from their use as efficiency enhancing and pro-competitive devices. Given that there is no clear list that determines whether bundling or exclusive dealing are more likely to have anti-competitive or efficiency enhancing effects, there are not even clear qualitative criteria that can serve as reasonable benchmarks for the informativeness of evidence. However, in cases with these aspects, the Commission has even sometimes failed to use the criteria it set consistently. One example is the evidence concerning financial strength in the GE/Honeywell case. One could imagine the Commission using indicators like turnover, debt/equity ratios, cash flows, market capitalization, or credit ratings. Some of these, like credit ratings make some sense in light of the theory, others like turnover do not. However, at a minimum a comparison of financial strength should compare like with like. But this is not done in the case. GE’s AAA credit rating, for example, is stressed, but the same credit rating suppressed for another firm that is argued to be financially weak. Nowhere in the decision is there a consistent comparison of each group of financial data that is considered relevant for financial strength.

Whatever the merits of the case, such unsystematic presentation of evidence for a key ingredient of the Commission’s argument is highly problematic. Permitting such practices encourages, whether intended or not, the selective presentation of evidence to fit the Commission’s story.

A common thread through all of the shortcomings in the empirical substantiation of arguments is an excessive reliance on anecdotal evidence to the detriment of hard data. There is little that seems to have changed in this respect since the early years of European merger control documented by Neven et al. (1993). But the impact of such shortcomings

are greater today, where the Commission applies theoretical arguments of a much more speculative nature, which could only be justified by very strong evidence. The Airtours judgment by the CFI may here be a signal that standards of evidence will now have to be improved.

### *2.3. Constraints on resources*

One of the most important sources of error in any administrative procedure is a lack of appropriate resources. There is no doubt that the Merger Task Force has been strained to the limits in its capacity to process mergers simply as a result of the increase in the caseload. Some cases have been farmed out to other units of DG Competition. At the same time the Commission appears to be more ready to accept requests from national competition authorities to take over responsibility for a case.

Constraints on the number of available man-hours constitute only one aspect of such resource constraints. For the quality of decision making of a competition authority it is crucial what stock of expertise it has ready access to. Originally, Merger Task Force personnel have come from a background as career civil servants with a heavy emphasis on training in law. The average member on a case team will often lack intensive economic training or have little experience with looking at merger cases from an industry perspective (as consultants, competition lawyers, or investment bankers). I will discuss the problems generated by a generally limited range of experience in Section 2.4. Here I concentrate on the issue of capacity constraints on the side of highly qualified economists.

There is no doubt that the Commission has made an effort to hire economists and increase the MTF's capacity in economic expertise. Commissioner Monti has made the hiring of qualified economic staff a priority. But it is important to note two aspects of the problem. First, the necessary level of economic expertise for merger cases is fairly high. Second, we are starting from a relatively low base.

Let me first consider the level of expertise needed. The economic questions discussed in recent merger cases, including empirical applications of market definition tests and unilateral effects analysis, are, as I have described, often at the forefront of industrial economics research. New economic theory was written for cases like GE/Honeywell or UPM Kymmene/NorskeSkog/Haindl. Recent developments in empirical Industrial Organization were at the basis of the empirical analysis of unilateral effects in the Volvo/Scania case. All of the cases that have led to considerable controversy have revolved around issues associated with fairly recent academic research, especially those on foreclosure and leverage

This dramatic development in the degree of sophistication in the economic analysis of merger cases is reflected in the market place. Specialized consultancies in competition policy anti-trust today have a policy to hire economists with a Ph.D. from a leading university for any job above the level of basic research assistant positions. Staff at most

consultancies in the United States, and increasingly in Europe, include senior members that have a strong previous academic research record. Additional hiring of academic economists to complement this staff in larger, more complex, cases is becoming common, not just for merging parties but also often for competitors opposing the merger. In the United States this is mirrored by the hiring policies of the DoJ and the FTC. Both of these institutions every year attempt to hire new Ph.D.s from leading research universities and rotate leading academics in the field of industrial economics through their senior staff. The FTC has at least 60 economists in its bureau of competition with at least the director and vice director of the Bureau having a strong research record. Similarly, the DoJ has had a long string of chief economists drawing from the very top of the profession. In addition, there have been a number of staff members with a very credible publication record. Indeed, staff hired at the Ph.D. level is allowed (and encouraged) to continue to do academic research as part of their job assignment. This expertise has spanned both theoretical and empirical research in economics.

In comparison to this the Commission is seriously understaffed in economic expertise. Ph.D. level training in economics is rare among the staff members. I know of only one member of the MTF with a substantial publication record in leading industrial organization field journals. Compared to the United States where several members of FTC and DoJ have made widely noted contributions to empirical research in industrial organization, Ph.D. level expertise in applied econometric work appears particularly scarce. The capacity in economic expertise is further reduced by the fact that a large proportion of the time of Ph.D. level economists at the MTF is spent on routine casework, relative to an organizational structure in which existing expertise would be systematically used for a quality check on economic reasoning across cases. The work setting also leaves little space for systematic continued training to stay up-to-date with current research. This is in sharp contrast to economists at US institutions who even run regular research seminars. This means that economists in the Commission are to a large extent cut off from the ongoing academic debate about research. This cuts these economists off from debates that are often essential in interpreting the literature and establishing a consensus about what should be thought of as important and robust effects uncovered by the literature.

The Commission has tried to compensate somewhat by increasing the use of outside academic advice. However, outside advice is not a perfect substitute for in house expertise. Take, for example, the Volvo/Scania case. The Commission hired academic economists for a rigorous exercise in unilateral effects analysis. The robustness of the conclusions and the interpretation of this study were sharply criticized by opposing economists hired by the parties. However, the Commission had no internal expertise to assess the countervailing claims and judge to what extent the data they had could validly be used for their conclusions. There are two potentially damaging consequences of such a situation. First, the Commission has an incentive to avoid controversy by simply declaring that the empirical work is not necessary for its conclusions (as happened in the case). This simply undermines the goal of a more rigorous merger analysis that is intended through the involvement of economic experts. Second, the lack of internal expertise also makes monitoring of the hired experts very difficult. If academic

economists are led to believe that they can get away with minimal effort, the quality of advice to the Commission will suffer.<sup>13</sup>

The pure reliance on outside experts also becomes a problem when there are restrictions on bidding for that expertise at market prices. Currently, it appears that merging parties and interested competitors can simply outspend the Commission in obtaining economic advice. In the recent GE/Honeywell case, for example, I am aware of the involvement of at least three leading academics in the field of industrial organization on the side of the parties as well as at least two such academic economists on the side of competitors opposing the merger. At least four leading consultancies in Europe and the United States were involved in the European case with each consultancy team including several Ph.D. level theoretical and empirical economists. The simple act of hiring an outside academic economist can simply not make up for the amount of intellectual resources hired by the parties.

All of this indicates that the Commission is currently ill equipped to properly deal with some of the more difficult merger cases. The appropriate economic expertise that is necessary to make reasonable merger decisions in the light of current economic knowledge is simply not available. As a result the Commission is outgunned in terms of resources of economic expertise by the typical merging firms. The clearly existing intention of the Commission to apply rigorous economic reasoning does not compensate for the lack of personnel properly trained to do such an analysis.

#### *2.4. Regulatory capture and other biases*

One of the greatest concerns at the time of implementing the Merger Regulation was the question whether the Commission would be too lenient in approving mergers and could be captured by the merging firms themselves or by the industrial policy interests of some of the member states. In 1993 there was even some evidence that supported such claims. Neven et al. (1993, p. 7) summarized the responses of firms and lawyers to a questionnaire concerning this subject in the following way:

Some industrialists, and most lawyers, note that the Commission appears very keen to clear deals if at all possible. The lawyers in particular are aware that this may give them significant bargaining power with the Commission even in doubtful cases.

While I do not have rigorous survey evidence to support this point, it appears fair to say that such concerns have been largely set aside over the last ten years. There is little question that the people working on mergers in the European Competition have a very

<sup>13</sup> This is not a statement about the advice the Commission received in this particular case, but a general statement about the incentive effects for academics hired by the Commission if there is no effective monitoring of performance.

clear conviction that their goal is to work in the interest of a competitive market and efficient outcomes in such markets.<sup>14</sup>

It should be clear that establishing such a reputation and maintaining it does come at a cost. For example, in the GE/Honeywell case there was a clear public impression that last minute political pressure might push the deal through. For example, the *New York Times* reported: “In a statement, the commission said it would accept an offer short of a sale of the aircraft leasing unit, GE Capital Aviation Services. Some people close to the commission have said that the European regulators want General Electric to sell or spin off the unit outright. [. . .]. Some people close to the commission interpreted the statement as a conciliatory move. ‘It is a fig leaf; Mr. Monti is backing down,’ said one lawyer who has acted on behalf the commission’s competition authority in the past. Far from shrugging off the political noise of recent days, Mr. Monti ‘has woken up to the unavoidable political fallout that his tough stance is provoking,’ he said.” Indeed, Commissioner Monti felt it necessary to rebuke comments by President Bush on the topic (“I deplore attempts to misinform the public and to trigger political intervention.”).<sup>15</sup> It is clear from this public discussion that it would have created considerable costs for the Commission’s credibility if it had not prohibited the merger. The Commission would have been viewed as caving in to such pressure even if it had finally passed the merger purely on the merit of the economic evidence or on the basis of appropriate remedies to its competition concerns. It is impossible to tell whether this outside pressure has prevented the Commission from taking a second look at the coherence of its arguments in the GE/Honeywell case. But the potential costs are obvious. The case is, however, an example at hand that the Commission is committed to resist even the impression to be susceptible to public pressure by large firms who want to merge or political intervention by governments.

Despite this success in establishing a reputation for a pro-competitive attitude, there remain serious concerns about regulatory capture. They are derived directly from the resource constraints the Commission is facing. As a result of such constraints the Commission has been relying heavily on the expert advice provided by intervening parties opposing the merger. For example, in GE/Honeywell the central arguments about leveraging were provided by the economists working for the competitor of GE who had previously attempted a takeover of Honeywell (see Reynolds and Ordovery, 2002). The expert advice on bundling heavily relied on the work of economic advisors of another competitor. Indeed, there are many other cases in which it is an open secret that the Commission takes its arguments directly from those provided by competitors opposed to the merger. Commission officials have even encouraged competitors to intervene and provide them with the expert advice they cannot produce in house.

14 This is not to claim that a significant number of anti-competitive mergers may be cleared in practice. The contrary is suggested by recent research (see Neven and Röller, 2002). However, there does not seem any bias towards intentional accommodating decision making.

15 All citations from *New York Times*, June 18, 2001, “Europe Officials Appear to Bend some on GE Deal.”

This adoption of the arguments of the parties opposed to a merger is an obvious form of regulatory capture and a particularly dangerous one in merger cases. At a first cut economic analysis suggests that competitors in a market will be favorable to a merger if it is anti-competitive and raises prices and they will be against the merger if it is pro-competitive by lowering prices—either because it increases the incentives to compete or because it leads to significant cost reductions. This means the most likely reason for a competitor to oppose a merger is the prospect of tougher competition in the market. The presence of such opposing parties to the merger is therefore rather a positive signal about the underlying efficiencies generated by the merger than it is a sign of likely price increases (which competitors never oppose).<sup>16</sup>

The consequence of relying on competitors to build a case against mergers is not just that mergers are blocked that should have gone through. It also means that truly anti-competitive mergers go through because there are no competitors protesting the merger. This may explain the peculiar fact that some mergers in very concentrated markets had a relatively easy time winning approval, while mergers like that of GE/Honeywell that generated much less accretion of market shares, was vigorously opposed. The fatal consequence of regulatory capture by the competitors of the merging firms is that both types of mistakes in merger policy increase: there are more mergers approved that should not be approved and more mergers blocked that should not be blocked!<sup>17</sup>

There are also other biases that can lead to bad decision-making and that a good policy framework has to be aware of. A competition authority with a strong commitment to pro-competitive policies is very likely to see anti-competitive behavior flourishing everywhere. The reason is that the first question that such a body will always ask is: what are the potential anti-competitive effects? This is just the same on the opposite side for lawyers and economists advising the merging parties. The first question they have to address is: what are the arguments that imply that the merger should not raise competition concerns? This type of task oriented thinking very naturally leads to a mind set in which all information that is generated is filtered with this objective in mind. A competition authority worrying very much about anti-competitive effects of mergers will tend to look for and find indications for anti-competitive effects. Advisers to the firms will be more likely to look for and find the opposite.

For good decision making on the side of the competition authority and good advising for industry clients on the other side, there is a need to step out of this focus and ask the question: “Are there good alternative arguments for the other side that we are

16 The careful reader may point out that competitors can be legitimately concerned about foreclosure effects. I will be discussing the issue of foreclosure effects in mergers in more detail in the next section. It should, however, be clear that for any pro-competitive merger the competitors would claim that foreclosure is the necessary consequence of the merger. If one is dependent on the expert advice of such competitors the regulatory capture argument made above will still have full force.

17 This interpretation of the systematic causes for bad decision making is consistent with recent empirical work by Neven and Röller (2002) who suggest that there are more errors in passing mergers than blocking them. Their work may also underestimate the second type of mistake because it does not address the issue of unnecessary or overly restrictive remedies.

overlooking?’’ This is true for the official in the competition authority as it is true for the advisers supporting merging firms. However, for competition lawyers and economic advisers there are strong market incentives to step back and ask this question: ‘‘What anti-competitive scenario might they come up with?’’ There are several reasons. First, there is a high market value of a good reputation. Such reputation is established by a performance record. For example, an economic consultancy that establishes a record for getting mergers approved on the force of its arguments has an incentive to avoid cases that are economically unconvincing. Losing a case is bad advertisement. Similarly, reputation can only be enhanced, when such advisers warn of problems that later are raised by the Commission. As unwelcome as bad news is for a client, it is often cheaper to anticipate looming problems in advance and thoroughly research solutions including acceptable remedies. Consultancies are often enough involved in merger cases for a meaningful track record to be observed by lawyers and industry to make such a reputation mechanism work.

In contrast there are no such institutional incentives to review the own position on the side of the Commission. Since there is an identity of investigating and decision making personnel at the Commission, there is never any incentive to fundamentally question whether arguments or the available evidence are consistent or meaningful. Relative to the number of cases, even those that make it to Phase 2 of the merger proceedings, judicial review is very rare. Unless there is a reversal of the decision by the CFI, the Commission can always claim its decision was correct and appropriate.<sup>18</sup> There is also no mechanism in place that would translate a dramatic reversal by the Court into an effective penalty for a decision maker in the Commission. But it is very difficult for anyone to let go of incorrect intuition. The lack of institutional incentives to work against this tendency combined with the ability of complainants to set the agenda for the investigation provides an environment that facilitates bad decision making and regulatory capture.

While the European Commission has clearly overcome the potential problem of a systematic bias of merger policy towards leniency, recent years have brought to light a potentially even more dangerous regulatory capture problem. It is facilitated by the resource constraints we discussed in the previous subsection and aggravated by the lack of institutional incentives for self-correction in the decision process.

### 2.5. Remedies assessment

The assessment of remedies is one of the most difficult parts of merger policy. The effectiveness and appropriateness of remedies depend to a great deal directly on whether the correct framework for analysis is adopted and whether, empirically, there is evidence that the remedy would address whatever competition concerns would arise.

<sup>18</sup> The recent *Airtours* case suggests that even a reversal of a decision by the CFI can still lead to continued insistence that the Commission is right.

There are a number of problems with remedies policy, many of them appear to be difficult to solve. First, there is the question of whether a remedy can be effectively implemented at all. In many cases the preferred remedies come in the form of a disposal of assets. But a publicly required asset sale will enormously reduce the ability of the firm to sell the asset at a reasonable price. Indeed, the requirement of the sale will reduce the reservation price of the merging firm to the scrap value of the asset. Second, it is often not clear whether the particular assets targeted can at all be profitably managed by another entity (at least by one that does not raise competition concerns). As a result, it is quite possible that an asset disposal becomes impossible. But in practice it will be difficult for the Commission to assess whether the merging firms are trying to sell the assets or just trying to demonstrate to the Commission that they cannot comply with the remedy. This is clearly a problem of major concern that the Commission has tried to address actively. However, it will remain a difficult problem to solve.

But other problems in the determination of remedies are much less frequently addressed. These problems are centered on the appropriateness of the remedies to satisfy the competition concerns.

The first problem in this context is that remedies discussions are typically started very late in the process. Given the tight deadline constraints of the European process this means that their impact can neither be thoroughly investigated by the Commission nor by the parties. This will increase the likelihood of remedies being adopted that are adequate for the competition concerns of the Commission and at the same time may lead to bad business decisions on the part of the parties. The current process does not help in this regard. From the perspective of the parties there is the understandable fear that an early discussion of remedies will just be taken as a signal by the Commission that even the parties think that there can be considerable competition concerns. The proposed remedies are then likely to become a minimal concession. Since the parties want to merge at minimum cost they are better off not introducing a remedies discussion early on in the process.<sup>19</sup>

Closely related are issues of the appropriateness of remedies. Remedy assessment is easiest with concerns about unilateral effects of mergers because methods to evaluate mergers are also often adequate to assess proposed remedies. Remedies assessment gets again more complicated when appropriate remedies for collective dominance are considered. For example, deficiencies in the theoretical framework for the analysis of collective dominance have had a direct impact on the effectiveness of remedies. Compte et al. (2002) have shown by calibration methods that the asset disposal required by the Commission in Nestle/Perrier was unlikely to materially affect any competition concerns. This is an example of the general principle (see Kühn, 1991b) that divestitures that can be helpful to address unilateral effects can have potentially no impact or can even be counterproductive to address collective dominance issues. Potential requirements on structural links between firms have unclear effects in theory. Even when focusing on

19 There also sometimes seems to be some reluctance on the side of many firms to even contemplate remedy options because management so strongly believes in the merger project.



potential information flows between firms it is unclear whether, for example, the requirement of eliminating small cross-shareholdings would have any material impact on post-merger behavior. Generally all of the problems with the analysis of joint dominance are carried over to the assessment of remedies.

It is then no surprise that the issue of appropriate remedies arising for mergers with foreclosure and leverage concerns is the most problematic in practice. Theory does not necessarily give any good suggestions on specific asset disposals that can reduce foreclosure concerns. Indeed, there is no work to my knowledge that has attempted to analyze how the incentives for foreclosure or leverage strategies change as a function of the asset distribution between firms. Given that behavioral undertakings are considered problematic, this makes it hard to even assess proposals.

### **3. Addressing problems through substantive changes in merger assessment**

In its Green paper the European Commission has proposed two substantive changes to the test applied in merger control analysis. One is a switch away from the dominance concept to a standard of “substantial lessening of competition” as in the United States, Canada or even the United Kingdom. The second is the introduction of an explicit efficiency defense in merger proceedings.

Both switches tend to be appealing to economists. The “substantial lessening of competition” standard is phrased in a way that sounds more like the language an economist would use. The efficiency defense explicitly incorporates one side of the trade-off involved in mergers into the analysis. But the real question to ask is whether such changes have any possible real impact on merger decisions. Furthermore, it is usually not discussed whether such changes could at all address the deficiencies in merger policy that we have identified.

In this section, I will argue that the proposed changes are at best cosmetic. Given the context in which the change is proposed and given the nature of judicial review, there is a real danger that the suggested switch could aggravate the problems in merger assessment that we have identified rather than reduce them. At the same time there are simple substantive rule changes that could eliminate many of controversies that we have seen in recent cases.

#### *3.1. Substituting “dominance” by a “substantial lessening of competition” (SLC) test*

In recent discussions of dominance several commentators have claimed that the single firm dominance test is a test that requires much more market power than the SLC test. Representatives of the European Commission have been claiming this in many discussion forums and some other commentators appear to agree. For example, John Kay (2002) writes:

In Britain a merger will fail if it is against the public interest, or involves a substantial lessening of competition. In Europe a merger can be prohibited only if it creates or strengthens a dominant position. Reducing the number of competitors from 4 to 3 lessens competition, but if no firm has a market share above 30% none can be dominant

To deal with such perceived problems the Commission has tried to argue that anything that does not fall under single firm dominance falls under collective dominance.

I do not believe there is any evidence in merger cases or legal decisions for any of the assertions made about the stringency of the dominance concept relative to the SLC test. Indeed, there is not even consistency in the different claims as to how stringent the single firm dominance standard is. The market share benchmark heard most often is 40%, but Kay names a 30% market share benchmark. In its Tenth Competition Report, the Commission stated for abuse of dominance cases that there was a safe haven below 20%, a presumption of dominance around 40–45% and the possibility of dominance (with further evidence) anywhere in between. Indeed, there is ample documentation of the Commission and the Courts rejecting that there is any fixed market share benchmark that determines single firm dominance and firms with less than 40% market share can be found dominant. The European dominance concept is clearly much less stringent than the one in New Zealand, for example, where between 1991 and 1996 no merging firms were found dominant unless they had more than 70% market shares.<sup>20</sup>

The term “significant lessening of competition” has, internationally, similarly wide margins of interpretation as to its stringency. In the US, the HHI benchmarks considered for a presumption of a significant lessening of competition are lower than a 40% benchmark would imply.<sup>21</sup> However, there is some doubt whether the true benchmark is really that tight. Canada’s substantial lessening of competition test is implemented with guidelines that create a safe haven for market shares below 35% for unilateral effects and below 65% for coordinated effects. This standard appears to be potentially less strict than the current standard employed by the Commission, since there is certainly no safe haven at a 35% market share benchmark. From an international comparison it is therefore unclear whether SLC or dominance lead to stricter standards. It all depends on the actual guidelines that implement the concepts. Nevertheless it is important for the European discussion that those commentators strongly promoting an SLC test consider it to apply to lower degrees of market power than the current single firm dominance criterion.

I believe the discussion arises because many commentators identify the European dominance test with a specific market share test, which they would like to see lowered. Dominance is considered by these commentators (*e.g.* Korah, 1999) to be such a high

20 Indeed, New Zealand has a safe haven test that makes any firms with less than 40% market share or any firm with less than 60% market share facing at least one firm with more than 15% market share immune from a dominance claim.

21 To see this simply note that with two firms at the 30% level, an industry will automatically lie in the region considered “concentrated” and an increase by the HHI of more than 100 points would be considered as a presumption for an anti-competitive merger.

degree of market power that significant unilateral effects cannot be captured. My search through the literature has found no publication that would have substantiated this assertion on the basis of any concrete cases. The only consistency I can see across different participants in the discussion is that those who believe that EU merger policy is too lenient want an SLC standard while those who do not support that claim do not see a need for change.

In the end this only reflects the fact that the term “dominance” is in principle an empty shell until filled with economic meaning.<sup>22</sup> That is not surprising. The same was true for the SLC concept in the United States until it was filled with concrete meaning through the 1982 Merger Guidelines. It appears that all we need to do is be more concrete about our dominance standard—as now adopted by most jurisdictions in Europe. Since the end of the 1980s there appears to be a wide consensus among practitioners in European competition policy that the dominance term should be interpreted as the equivalent of the economic idea of significant market power. This appears to be the current wisdom of legal textbooks. For example, Whish (1989, p. 290) treats the issue of “dominance” simply under the section heading of “market power.” In the merger context the economic question simply is: to what extent can firms increase their market power through a merger? In other words: how much of an incentive do they have to raise prices as a result of the merger? As is well known by now this question has two aspects. One is the “unilateral effects” aspect of a merger, which captures the equilibrium price changes in the absence of collusion. The other relates to the “coordinated effects,” which are the price changes induced by a change in the incentives for collusion (or parallel conduct) due to the merger. Any analysis of the change of market power due to a merger has to look at these two aspects.<sup>23</sup> This is what we have to codify.

Traditionally, both questions have been addressed by a market share test, because little else seemed available to assess the change in market power due to a merger. However, in the last 20 years empirical research and consulting practice have made substantial progress in creating instruments to assess unilateral effects of mergers more directly. Work by Baker and Bresnahan (1985), Hausman et al. (1994), and Nevo (2001), among others, have shown how demand systems (and partial demand systems) can be effectively estimated from market data to give an answer to the question of how much prices would rise as a result of the unilateral effects of mergers. In practice these methods have been applied in real cases, most prominently in the US in Staples/HomeDepot by the DoJ, but also in Volvo/Scania by Ivaldi and Verboven (2001). There are also numerous bidding studies in consulting contexts that directly estimate the effect of the elimination of one competitor from the bidding process. While these methods will not be applicable in the

22 This is not necessarily an uncontroversial statement. For example, New Zealand High Court Judge McGechee wrote in a 1995 decision: “The test for ‘dominance’ is not a matter of prevailing economic theory, [. . .]. Nevertheless, . . . , economic concepts and terminology intrude.” I believe such positions are contrary to the prevailing consensus in Europe.

23 See Kühn (2002) for an exposition of the economic reasoning underlying the distinction of unilateral and coordinated effects of mergers. This paper also discusses in more detail why these effects neatly map into single firm dominance and collective dominance arguments.

majority of cases, they do give guidance for how systematically to assess data that goes beyond mere market share information.

The situation for the assessment of coordinated effects of mergers is significantly more difficult because there are more important conceptual hurdles for satisfactory empirical tests. However, the recent theoretical research has clearly rejected the idea that the change in the Herfindahl index is an appropriate measure for the change in market power due to coordinated effects of mergers. What the literature has done is to point to potential criteria in the change in the distribution of market shares that can give insight into the likely coordinated effects. These and potential empirical tests that are not market share based are discussed by Compte et al. (2002), and Kühn (2001b, 2002).

Market share benchmarks by themselves tend to be poor indicators of actual market power. For example, large market share asymmetries in markets with close substitutes will typically not give a strong indication for a firm having market power. Indeed, it is theoretically possible to generate the same market share distribution for any degree of single firm market power by adjusting cost structures. The only reason why we believe that market shares are useful is that empirically high degrees of concentration seem to indicate higher price cost mark-ups. However, that relationship is rather tenuous. It has completely broken down for the United States at the C4 level of concentration after the 1970s.<sup>24</sup> The data does not show any systematic relationship between prices and the market share of the four largest firms in the 1980s (see cite). Little credibility is given today to regressions that relate price-cost margins to concentration across industries. The only strong relationships between price cost margins and market shares appear to be at the C2 or C1 level and at fairly high levels of concentration (see Kwoka, 1981).

Where does this leave us for designing appropriate tests for the effects of mergers on market power? As much as possible, methods should be used that are not based on arguments about market shares only but are aimed at directly assessing the impact of the merger on unilateral and coordinated effects. This means that one would want to rely as much as possible on information other than the available market share information. However, in many cases information is limited. Given this insight, market share benchmarks can play an important role in allocating the burden of proof in merger cases. Since in most highly concentrated markets there is significant market power, one can legitimately create a market share benchmark above which there is a presumption of existing unilateral market power (or, at different critical market shares, of significant scope for coordinated behavior). Similarly, one can create safe haven benchmarks below which it is assumed that no market power can be exercised. Between these two benchmarks the Commission would have to show with a more direct test that significant unilateral or coordinated effects are likely.

Given that there are only two effects to analyze, unilateral and coordinated, it seems natural to map them to the analysis of an increase or strengthening of single firm or collective dominance respectively. Unilateral effects are completely captured by an analysis of the firms involved in the merger (hence, post merger it is a single firm issue),

24 A  $C_x$  concentration index measures the market share of the  $x$  largest firms in the industry.

while coordinated effects address the collective exercise of market power. Given that we all know what the underlying effects are and agree on them, why should we not stick to this simple interpretation of dominance? There is nothing in the legal precedent that seems to prevent that. Indeed, the merger regulation only knows the concept of dominance, not the distinction between single firm and collective dominance.

A switch to an SLC test might instead lead to unnecessary uncertainty. Is it just a clarification or will it be interpreted as a lowering of the implicit presumption of unilateral anti-competitive effects of mergers to a smaller market share criterion? I believe the latter is the reason why some commentators have insisted that collective dominance should include unilateral effects.<sup>25</sup> After the *Airtours* judgment by the CFI, this position is difficult to maintain and so it has been suggested that a third dominance criterion may have to be created in order to cover unilateral effects less severe than dominance.

Having such an additional criterion, weaker than single firm dominance (or instead allowing unilateral effects with a criterion weaker than dominance to be used under the collective dominance label) makes little sense. It would simply mean that the single firm dominance criterion would not be used anymore, and in practice be substituted by the weaker criterion for unilateral effects. There is simply no way around the fact that there are only unilateral and coordinated effects to consider and therefore only two tests to perform. Whether these tests are couched in the language of “dominance” or in the language of “substantial lessening of competition” is in the end irrelevant. In the words of a lawyer (Ysewin, 2002):

One cannot get away from the simple truth: the underlying test in merger control is one of single-firm and multi-firm market power. In Europe this led to a test based on “dominance.” In the US the same test was baptized as reviewing the “substantial lessening of competition”

The only concern one might have is that the case law, especially that in abuse of dominance cases, might prevent such a rational interpretation of the dominance concept. The definitions of dominance in court decisions have been vague at best. But the CFI has over the years also become economically much more sophisticated. The *Airtours* judgment speaks to that fact. Is it really plausible to assume that merger guidelines that would identify the “creation or strengthening of a dominant position” with unilateral and coordinated effects would be overturned by the CFI? Is it really to be expected that market share benchmark for safe havens or presumption of anticompetitive effects of mergers could be challenged by the courts if merger guidelines are drawn up in a broad consultative process? I find that highly implausible. And why would we expect the introduction of the SLC concept not to lead to a prolonged debate what exactly it implies in terms of unilateral and coordinated effects as well as the relevant market share

25 Indeed Korah (1999) makes precisely this point.

benchmarks? It seems that even with an SLC standard the real definition of the substantive test has to come through the merger guidelines that are adopted.

For these reasons I can only see to possible impacts from introducing of an SLC test. Either it will have no substantive effect at all because all that matters are the merger guidelines. Or the adoption of the test will be used as an argument to reduce the critical level of market concentration at which the Commission will find a presumption of significant price increasing unilateral effects of mergers. The real question for debate is therefore, whether it is appropriate to shift the burden proof in merger cases further to the merging firms by lowering the automatic intervention benchmark in merger cases? This would be appropriate only if we could show that the current standard, where (I believe) there is an implicit presumption at a 40% market share, has been excessively lenient. It would need to be demonstrated that there has been a significant number of mergers approved that should not have and that this result was due to the implicit market share criterion and not to failures of the administrative process. To my knowledge there is no such empirical evidence.

Revealingly, many discussions about an implicit lowering of the market share benchmark for such a presumption rely on hypothetical market share examples of the type: “Suppose one firm has 40% market share and two others with 15% market share merge. Would you not think that this would lead to significant price increases?” The honest answer is that I have no idea. At such an abstract level and without further information on industry such a question cannot reasonably be answered. I can think of no systematic evidence that would allow us to say that (even on a balance of probabilities) the price increasing effects of such a merger would be significant. Indeed, the possible effects would so heavily depend on the specifics of the market that a prediction on the basis of market shares alone appears to be heroic. I believe that market shares are too weak a predictor for actual anticompetitive effects, that presumption benchmarks should be set high in order to force the Commission systematically to use additional evidence for finding significant price effects of mergers.

A switch to the SLC test in the merger regulation is therefore as such of little consequence. It may be helpful to cut short unnecessary debates and focus on the fact that there are only two relevant tests in mergers: a unilateral effects test and a coordinated effects test. But, what prevents us from incorporating the unilateral and coordinated effects tests directly into the current merger regulation as the relevant tests for “creating or strengthening a dominant position?” This would achieve the unification of terminology that is used internationally in merger cases, without having to redraft legislation in most European jurisdictions. Incorporating this language in the merger regulation should also dispel fears that the courts could undermine the intended interpretation of the dominance concept.<sup>26</sup>

<sup>26</sup> I am grateful to Kirti Metha for suggesting the possibility of incorporating the terms unilateral and coordinated effects directly into the merger regulation. While I had initially thought that it was sufficient to have such language in future merger guidelines, I agree that such language in the regulation would be more effective in reducing the uncertainty about the future behavior of the courts.

If legal experts are truly concerned that the courts would undermine an economically meaningful interpretation of the term “creation or strengthening of a dominant position” as referring to unilateral and coordinated effects, we should specifically codify this in the merger regulation. This would leave little room for debate about what is meant by “dominance” in the merger regulation. However, the more important question for the practice of merger control is what we write into the future merger guidelines. They will shape European merger policy as the US guidelines have shaped US policy. It will be of central concern whether such guidelines will significantly lower the market share benchmarks at which regulatory intervention is justified by default. I have seen no market evidence that suggest that such a move would be necessary or desirable in order to improve the effectiveness of merger control in Europe. But it has to be clear that the real substantive test of European merger policy will be determined by the concrete tests outlined in such guidelines, not by the general dominance or SLC language of the regulation.

### *3.2. Efficiency defenses*

Calling for efficiency defenses is another pet subject for economists. The essence of the subject of economics is to look for trade-offs and it makes economists nervous when policy apparently only addresses one side of the trade-off, namely the anti-competitive effects of mergers. Indeed, economists have made proposals to evaluate the welfare effects of mergers by looking directly at the tradeoff of price effects against cost changes in a welfare calculus. (See Farrell and Shapiro, 1990 for a theoretical framework and Werden and Froeb, 1994 and Röller et al., 2000 for suggestions for practical implementation.) I will discuss in this section why efficiency defenses aimed at evaluating the market power/efficiency trade-off are highly problematic. I will also discuss an alternative view of efficiency arguments that are aimed not at such a trade-off. Instead I will argue that efficiency arguments can be used as evidence in establishing intent on the part of the parties. This approach is quite different from the first in the intended use of efficiency arguments, as I will discuss below.

To understand the problem of efficiency defenses as commonly understood it is necessary to understand what kind of evidence can be used to evaluate the different effects of mergers. As we have discussed, unilateral effects can in principle be estimated from current data (assuming costs and other market circumstances) are unchanged after the merger. Basically, pre merger variations in prices allow one to make inferences about demand elasticities, which in turn allow predictions about post-merger behavior. Things are much more difficult with coordinated effects of mergers and efficiencies. For these effects the post merger situation is counterfactual to the pre-merger market setting. There is no variation in pre merger data in the market that would allow one to make direct inferences about the changes in coordination or efficiencies post merger. In coordinated effects analysis we at least have a well-specified theory that can help in making qualitative predictions. But the prediction about behavior is relies much more strongly on assuming of a specific model of industry interaction than unilateral effects analysis does.

Things are more difficult with post-merger efficiencies. Since outcomes under the joint cost-function of the merging firms are never observable pre-merger, it is impossible to predict cost savings from pre-merger data.<sup>27</sup> For example, if the efficiency gains are expected through true synergies, there is no possibility to evaluate the size of these synergies from market outcomes that have been generated without access to such synergies. But there is also no theoretical framework that can predict cost savings as a function of pre-merger market data. This problem is acknowledged by Röller et al. (2000) in their survey on the subject, but most of the discussion in their paper as well as in most merger guidelines of competition authorities recognizing efficiencies starts after these costs are determined. There is, quite reasonably, much discussion of whether efficiencies are merger specific or not, *etc.* But there are few examples of authors who seriously consider addressing the issue of measuring or at least bounding the potential cost savings.

Many of the suggestions to practically implement an assessment of cost efficiencies do not even address the difficulty. For example, the Canadian merger guidelines suggest the use of *ex ante* information in form of pre-merger accounting data. Obviously, no information about the post-merger cost function is revealed. Areeda and Turner's suggestion that economies of scale are easily identified are similarly flawed because they rely on assertions over a range of the joint cost function, which is never observed pre-merger. The wide range of competing claims of subadditivity in local exchanges in the telecommunications industry (see Shin and Ying, 1992; Röller, 1992; Wilson and Zhou, 2001) should deter anyone from implementing an approach in practice in which decisions depend critically on econometrically evaluated efficiencies. The suggestion of using internal studies and consultant reports may be quite reasonable, but these approaches can only be expected to generate qualitative data that will contain little information about the impact on a merger on marginal cost. But the latter is necessary for the type of welfare calculus simulation approaches in the spirit of Werden and Froeb (1994) that Röller et al. (2000) suggest.<sup>28</sup>

One of the most serious suggestions to avoid the problems I have raised has been made by Werden and Froeb (1994). In their merger simulation technique they apply a clever trick to bound the potential efficiency effects of mergers. They look at the potential welfare effects if the merger reduces the marginal costs of the merged firm to that of the more efficient firm in the merger. This technique relies on pre-merger marginal cost and in this way gets around the problem of predicting the efficiency gains from mergers. However, this assessment has its own problems. First, it excludes the possibility of true synergies of mergers.<sup>29</sup> This means that by assumption virtually all mergers assessed will lead to increasing prices (see Farrell and Shapiro, 1990; Spector, 2001; Werden and

27 Essentially, the problem is one of trying to estimate cost-complementarities from observations on stand-alone costs.

28 There have also been some suggestions for using merger license fees as a revelation mechanism. Those suggestions simply ignore the high dimensionality of the uncertainty relative to what typical models assume.

29 Synergies do not exist when merging firms simply shift production to the facility with the lower marginal cost. Synergies mean that a single firm can produce the total output more efficiently than either could alone.



Froeb, 1994). It is then questionable whether this procedure does at all address the efficiency defense as intended. But second, it relies on a problematic leap of faith. It has long been accepted that accounting data are not reliable for assessing a firm's costs, so that marginal costs essentially have to be treated as unobservable in any estimation exercise. For the Werden and Froeb exercise to be valid we somehow have to believe that we can retrieve pre-merger marginal costs in a reliable way. Generally this problem is even more complicated. How do we obtain reliable data on the change in costs? Some commentators appear to believe that this should not be an issue for the competition authority because the burden of proof for efficiency defenses would be on the firms in any case. But how can the firms prove that their reported estimate of costs is correct? The protracted battles in regulatory settings to obtain reliable cost estimates make it appear highly implausible that a reasonable assessment of costs can be made in the time frame required for merger analysis.

Scherer's (1991) proposal is the most direct way to get around the whole problem. He suggests to approve mergers temporarily and then assess the realization of efficiencies. The problem is that the realization of efficiencies usually requires a significant degree of restructuring that is not easily reversible. This makes an *ex post* decision to reverse the merger extremely costly. This means that the procedure would introduce a massive bias against efficiency enhancing mergers. Given the lack of powers in Europe to induce *ex post* divestments it appears highly impractical. In the end there is no way around the problem that it is impossible to get an estimate of something that is only going to be created through the merger. The problem is much more fundamental than just saying, "we will get a bad estimate" of efficiencies.

In practice, efficiency defenses do not appear to have very important effects in those jurisdictions that use them. Although efficiency arguments are used in US cases, the only study on their impact by Coate and McChesney (1992), can find no systematic impact on merger outcomes through several decisions in the 1980s. Part of the result may, simply be due to the effect that efficiency claims are more carefully made in mergers that pose greater problems. Other evidence is purely anecdotal suggesting that in the late 1990s efficiencies played a greater role (see Röller et al., 2000, p. 57) or recent claims that efficiencies play only a minor role in current US decisions. The real test whether there is an issue in the European case is to ask the question whether any of the controversial merger decisions would have come out differently had there been an explicit efficiency defense. In the light of cases like Airtours/First Choice, Tetra Laval/Sidel, or GE/Honeywell, it appears highly unlikely that this would have been the case.

I also think that one of the arguments given for an efficiency defense, the finding of appropriate remedies, is not a good argument. Precisely in the remedies process an assessment of potential efficiency effects by the Commission is neither needed nor helpful. In remedy negotiations firms will reject remedies that will eliminate significant efficiency gains. The Commission should demand remedies that solve the competition problem and should let the firms choose which of the potential remedies have the least impact on possible perceived efficiencies. By revealed preference the least efficiency encroaching remedy will be chosen or the merger will fail because all remedies discussed would excessively reduce the hoped efficiencies.

It is probably in any case more reasonable in any case to think of a merger as the result of a decision to experiment with a reorganization of assets than a clean cost benefit calculus. If we look at the practice of efficiency defenses in those jurisdictions that allow them, the review by Röller et al. (2000) suggests that all that is ever used is qualitative information about the proposed reorganizations after the merger. The credible information that can be retrieved from the firms appears to be qualitative information about the projects they want to tackle rather than a concrete number on the expected marginal cost savings, which could be entered into the merger simulation calculus. Such information is of a much more qualitative nature than the type of data that can potentially be retrieved when trying to determine the unilateral effects of a merger. It cannot really answer the question: "Are the efficiency effects of the merger greater than the anti-competitive effects?" Such information about expected efficiencies is much better interpreted as evidence for the intent of firms than as information as to the order of magnitude of the efficiency effects. It can answer the question: Is it credible that efficiencies are motivating this merger? If the firm does present a credible story than it is simply less likely that anti-competitive effects are intended through the merger.

I believe that intent should, indeed, matter and that intent can be inferred from how people talk about their merger. In economic terms it is much more costly to come up with a good efficiency argument at the time of the merger proceedings when you have not thought precisely about these efficiencies previously. When efficiencies motivate people it really strikes you that their arguments make sense. Otherwise it is striking how little they can come up with in terms of pure verbal arguments. It was, for example, credible that AOL/Time Warner believed in the efficiency benefits of combining content with an internet delivery system. There was no way to estimate the actual benefits of such combination of assets and the realization such benefits was highly uncertain. It is clearly an example in which the expectation on which the merger was founded was spectacularly refuted by the market. But the companies certainly generated a credible motivation for their merger that was distinct from a pure market power motivation.

This suggests the possibility for a different type of efficiency defense than is usually proposed. It avoids any direct welfare calculus. In a first step the anti-competitive effects would be estimated. The analysis ends there if they are considered large or small. If they are in an intermediate region a convincing efficiency story would give the firm sufficient credibility to make the merger pass. Note that this is not a welfare calculus because an assessment of the size of the cost efficiencies would not be attempted. All that is tested is whether the intention of the firm is sincere. Underlying this is a belief that firms that show a clear cost reducing motivation for the merger are on average more likely to create substantial efficiency gains. We would implicitly assume that there is some underlying average efficiency benefit from mergers. The efficiency defense would simply acknowledge that this average efficiency benefit is higher in the population of mergers for which the merging parties can properly motivate their actions by potential efficiency gains. It could be argued that this type of reasoning is already consistent with the Commission practice. For example, the decision of the Commission in GE/Honeywell was partly defended by the claim that the parties had not given any efficiency explanation for the merger (see Reynolds and Ordovery, 2002). On the other hand the qualitative

efficiency test I have described above would only be considered if the merger is marginal under the assessment of the market power test. By design it is a very different test than one that aims at trading off the price and efficiency effects of mergers. It is a test that would not be used very often.

All of this suggests that we have not lost very much from the absence of an explicit efficiency defense in European merger policy. A switch to such a defense does not appear to address any of the major concerns about current merger control I have discussed earlier. On the other hand one might well argue that there is no reason to have a procedure in which some information is systematically suppressed, even if it is only of qualitative nature. If there is no downside to an efficiency defense then we might as well have one. I will address in the following section that a combination of a changed market power test and the introduction of an efficiency test could, however, remove us further from a rigorous merger analysis.

### *3.3. The potential dangers of a combined switch to SLC plus efficiency defenses*

One important issue that is almost never discussed in the discussions on SLC and the efficiency defense is the way in which the two changes would interact. Given that most proponents of the SLC test appear to aim at a reduction in the critical benchmark for finding a presumption for significant anti-competitive effects of mergers we would clearly see a greater range of mergers which the Commission could prohibit without running into problems of substantive review. As I have argued this would significantly shift the burden of proof to the merging parties. But this would also greatly increase the number of mergers that, according to the standard, the Commission should prohibit, but which it feels will not generate significant anti-competitive effects.

The creation of an efficiency test would allow the Commission to get around this problem by accepting efficiency defenses. Since the order of magnitude of efficiencies cannot really be assessed with any precision, a wide range of assessments will be considered reasonable. In effect, this would give the Commission wide discretion to use efficiency arguments to allow mergers above the intervention threshold to pass. The attractiveness of such a system with increased discretion for the Commission is obvious. Blocking mergers would require no more than the determination of market shares on the side of assessing market power and ease the blocking of mergers without detailed market analysis. The efficiency defense would allow wide discretion to permit those mergers that appear less anti-competitive to the Commission and avoid an impression of too interventionist a policy.

Why would an increased degree of discretion in merger decisions be problematic? The reason is that we have identified systematic problems with the incentive system in the Commission, especially the problems of regulatory capture and problems of careful use of evidence, that suggest that there are problems in the incentive system for the Merger Task Force. The main task in improving the performance of the Commission therefore lies in creating an environment in which there exist the right incentives to resist capture and to generate and carefully interpret relevant evidence. In many such incentive problems limiting discretion in decision making will help to improve incentives. My general rule

for such problems in practice is that unverifiable information should not be critical in decision making when we want to keep the incentives of agents (*i.e.* Commission officials) in line.<sup>30</sup> As I have argued, the magnitude of efficiency gains from mergers is essentially unverifiable because they will rely on claims by the companies that cannot be checked through rigorous data work.

Increased discretion in merger assessment by allowing a quantitative efficiency defense therefore does not appear to be a beneficial change in a situation in which the major perceived substantive problems with Commission decision making appear to stem from a lack of accountability. The move would partially counteract any attempts to increase the effectiveness of judicial review by reducing the degree to which decision-making is subject to such review. Furthermore, in a world in which regulatory capture by competitors is a real issue, discretion can only increase the degree of capture and thus lead to an increased number of bad decisions—of both types.

These objections to the simultaneous introduction of a reduced presumption market share threshold for merger prohibition with a quantitative efficiency defense do not carry over in the same way for efficiency defenses aimed at eliciting intent. Such a defense would only play a role when the market power analysis has been inconclusive. Discretion would be severely limited in this case. First, efficiency arguments would only be used as a tiebreaker. Second, the required qualitative information suffers less from a verifiability problem. For example, qualitative company plans and serious thinking about efficiencies is much easier to document credibly than the actual monetary amount of efficiencies expected.

On balance, I would however, argue against an efficiency defense at this stage of European merger policy. I doubt that the distinction between quantitative and intent based defenses will be made should such a defense be adopted. Hence, the concerns about discretion would not be addressed. Furthermore, we have to recognize that nothing in the record indicates that a lack of efficiency defenses has had a material impact on merger policy in Europe. This instrument therefore does not appear to be a high priority item for the reform of merger policy in Europe.

#### *3.4. What substantive changes can address the problems encountered in recent merger cases?*

As the discussion in the previous paragraph suggests substantive changes in the current climate should rather go in the direction of limiting discretion than increasing it. First, this would mean that it must be a priority to create clear guidelines based on current best practice for the implementation of unilateral and coordinated effects analysis. These guidelines should specify legitimate arguments and the standards in the use of evidence.

30 A similar argument is used in Kühn (2001a) to justify current enforcement practice against collusion. In that case it is argued that conduct has to be regarded as unobservable and that enforcement should condition on intent as revealed through conversations about price. The distinction between quantitative efficiency defenses and efficiency defenses based on revealed intent made in this paper is in the same spirit.

In this sense worked out merger guidelines will be of much greater importance to the future of European merger policy than the wording of the merger regulation itself.

But there is also an area in which serious consideration has to be given to the possibility of restricting the ability of the Commission to intervene through merger decisions, possibly by amending the merger regulation itself. This concerns all arguments that could potentially be more effectively addressed under Article 82 of the Treaty of Rome in form of an *ex post* control of a dominant position. In a sense this goes back to the fundamental justification for merger policy itself. It is anything but obvious in theory that merger policy is necessary at all. Most of the law and economic literature would suggest that violations of a legal norm could be prevented by an *ex post* enforcement system with fines. Even if detection of behavior only occurs with small probability, sufficiently large fines should allow us to largely suppress the illegal behavior. However, such a system does get very problematic when the detection of illegal behavior is extremely difficult. Given bankruptcy protection fines can never be made large enough to prevent the behavior. Under such circumstances preventive intervention is justified. For design of competition policy it is of crucial importance where on the potential scale of identifiable behavior specific practices lie. This will determine whether preventive merger policy or *ex post* control as in abuse cases is the right approach for merger policy. Indeed, virtually every important jurisdiction that adopted antitrust legislation before the 1980s started with an abuse regime and *ex post* fines and introduced merger control at a later date.<sup>31</sup>

For unilateral effects of mergers the benefits of a preventive policy has long been established. "Price abuses" are extremely difficult to prove since they would have to be based on reliable cost data. The experience with such cases in the courts in a number of authorities clearly shows that pricing abuses can typically not be successfully proven in court (see Kühn, 1998 for the German experience). This is not surprising. A general control of abusive pricing would turn competition policy into an instrument for the general price regulation of industry. The potential costs of implementing such an approach appear to be much higher than the simple preventive policy of limiting the external growth of firms that have significant market power.

The use of a preventive instrument like merger policy is already much harder to justify with respect to the potential coordinated effects of mergers. If we can detect coordination with some probability it will be the case that a fines regime can work satisfactorily. I have strongly argued in other places that there is a strong detection problem for collusion (in the economic sense) which makes the control of coordinated effects in mergers is a very legitimate concern (see Kühn, 2001a, 2001b, 2002). In Kühn (2001a) I have argued that collusion can essentially never be proven unless there is actual communication about prices. Hence, all spontaneous learning of collusive interaction as in "parallel conduct" must necessarily escape *ex post* control. At the same time there is considerable evidence that collusive behavior is widespread in markets that are very concentrated. Much of it is likely to be undetected or arises (as parallel behavior) without explicit coordination. Given a wide consensus among practitioners that collusion is a widespread problem, and

31 This includes the US, Germany, and the European Communities.

the knowledge that our enforcement is very imperfect, there is a clear efficiency reason to intervene *ex ante* through merger control.

But can a similar argument be made for arguments on foreclosure and leverage? Anticompetitive foreclosure or leverage behavior by a dominant firm is notoriously difficult to prove. But the problem is not that firms were hiding their activities as in the case of collusion. On the contrary, the practices that potentially raise concern, like exclusive dealing, bundling and other discounting practices, are most often publicly observed. In contrast to collusion there is therefore no question whether the behavior has occurred, the only question is whether leverage or foreclosure effects can be observed or are likely. Therefore it is very unlikely that we miss many cases with foreclosure potential.

The main question in foreclosure and leverage cases is whether such effects are at all likely given the observed practice. In case after case economists have, over the years, come up with perfectly innocent efficiency reasons for specific contracting practices that were subject to complaints. These are most of the time sufficiently plausible that an *ex post* abuse case would (and should) fail. For foreclosure cases it is hard to find more than a handful of cases, in which anti-competitive conduct appears a convincing explanation of industry conduct. Where there has been recently convincing evidence for exclusionary behavior this typically involves strong evidence for intent. The role of internal e-mail in the Microsoft case is an important example for this.

All of this makes it highly questionable to use foreclosure arguments for *ex ante* preventive policy. First, *ex ante* it is not even clear whether a specific practice will be adopted or is more likely to be adopted after the merger. Current theory and empirical work in economics has virtually nothing to say about the subject. Second, at the time of a merger there is much less information about the potential foreclosure effects available as at the time of an *ex post* investigation. In particular, evidence about intent, which is becoming more and more crucial in such cases, will be completely absent. Fourth, we are highly unlikely to miss any potential cases. Exclusive dealing, tying *etc.* is readily verifiable *ex post*. While in collusion cases no one has an incentive to talk, in foreclosure and leverage cases some competitor is hurt and will scream (this does not mean that competitors will not also scream when these are efficiency enhancing practices).<sup>32</sup> Detection, the major reason for *ex ante* intervention, is therefore not an issue. So why should we ever intervene *ex ante*, when we are not likely to miss any cases through *ex post* intervention?

On balance practices like bundling and exclusive dealing are at least as likely to lead to efficiency enhancements and intensified competition as to the foreclosure of competitors. It is the detailed knowledge of industry performance under these practices over time that

<sup>32</sup> Indeed, the most likely reason that there are so many more Article 82 cases than Article 81 cases is precisely because under Article 82 someone complains and under Article 81 collusion cases no one has a real incentive to approach the competition authority (unless they think someone else will). Prosecuting collusion means raiding offices of firms and obtaining evidence. In Article 82 cases competitors will produce material for the Commission.

can reveal whether there is any anti-competitive conduct (or intent). *Ex ante* intervention against such practices through merger policy therefore does not appear to be justified. There is neither systematic theory or evidence how mergers would change the occurrence of such behaviors, nor is there any ability in current economics to predict with any degree of accuracy whether there will be foreclosure effects in a particular industry through such practices in the future. The theory does not allow such conclusions and the empirical evidence does not support the suggestion that foreclosure and leveraging should be considered a major concern. It is therefore desirable that future merger guidelines or even the merger regulation explicitly exclude the consideration of foreclosure and leveraging effects due to exclusive dealing, bundling, or tying from the assessment of mergers. In other words, Article 82 issues should be excluded from consideration in merger cases.<sup>33</sup>

There is only one exception to this rule, which I would consider. This concerns straightforward vertical merger cases in which the upstream firm has a close to monopoly position in the market for an input used by all competitors downstream.<sup>34</sup> This is essentially the case of an access monopoly in which the pricing behavior is just as difficult to evaluate as in single firm pricing abuse cases relative to final customers. We know from theory that overall exercise of market power can be considerably increased through such mergers (see Rey and Tirole, 1997). These mechanisms are also different from other foreclosure mechanisms in that they have an immediate profit increasing effect and do not rely on intertemporal mechanisms. It has to be stressed, however, that vertical merger cases are extremely rare. Most of the time foreclosure concerns are raised in cases of product line competition and the potential foreclosure effects of hypothetical marketing strategies in such markets should in my opinion not be dealt with in preventive merger control.

This suggested policy change would be the single most important reform that would bring EU merger policy in line with that of the US or Canada. It would have avoided cases like that of GE/Honeywell or Tetra/Sidel, both currently pending at the Court of First Instance. Note that an efficiency defense would not have helped in either of these cases, which again shows that the relevant substantial issues in EU merger policy do not revolve around efficiency effects.

33 In addition, and in the same spirit, it should be made explicit that efficiency gains obtained through a merger should never be a reason for the merger to be blocked.

34 Even in those cases other competition policy instruments than merger control can be preferable. A good example for ineffectual merger policy in foreclosure cases is the Microsoft-Telewest case. In the case Microsoft was attempting to establish joint control over one of two major UK cable companies. There was a reasonable case to be made that this was part of a worldwide strategy to lock up adoption decisions for the market for next generation cable box software. But it was necessarily this particular transaction that was the reason for the possible foreclosure effects of other software makers but the overall Microsoft investment strategy worldwide. Microsoft prevented further scrutiny by reducing the participation in Telewest below a level that afforded it joint control. This did not address the foreclosure issue but it took the transaction outside of merger control.

#### 4. The role of procedural and administrative adjustments

We have seen that most of the issues concerning valid theoretical arguments and solid empirical evidence do not have a resolution through changing the substantive tests for merger analysis. Indeed, in the previous section I have argued that the proposed changes may in fact (depending on how they would be implemented) give the Commission even more discretion in decision-making. This would only reduce the pressure for more rigorous economic argument. I concluded, that the only substantial change in merger tests that could control some of the more problematic merger assessments would be to largely exclude the use of foreclosure and leverage arguments from merger assessment.

The only other way to improve the quality of decision-making is to create better incentives for the decision makers to correct the problems that are surfacing. These incentives are clearly not in place at the moment. Even where the Commission loses cases in court, as in the *Airtours* case, it tends to insist that there were never any problems in the theoretical substance of its case or in the empirical evidence provided. This is not necessarily a problem of attitude or lack of professionalism on the side of the staff at the Commission. Indeed, these arguments are clearly made by a committed, highly motivated staff that strongly believes in its mission. The problem is that there is no benefit in the system for Commission members to fundamentally question own practices. This means that the self-confirming bias existing for any individual or in any institution is not kept in check by an effective incentive system.

The lack of checks and balances in the Commission merger procedures and other institutional safeguards that create incentives for self-correcting intervention has been noted by Neven et al. (1993). The full extent to which such structures can have very negative impacts on the quality of merger control has only become apparent in the last couple of years. The institutional reforms Neven et al. (1993) proposed should therefore now be at the top of the agenda for the reform of the European merger process.

There are essentially three ways to establish greater accountability and give greater incentives to avoid problems of a self-confirming bias. The first is to build checks and balances into the procedure, for example by separating some functions. The second, is to create internal checks and balances through the organizational structure of internal advice. The third is to make the process more open to external scrutiny through transparency measures. I believe that all three of these measures are complementary and tend to address different incentive issues in different ways.

##### *4.1. Creating checks and balances in through the merger proceedings*

There is a general principle of judicial proceedings that investigative and prosecutorial functions are completely separated from the function of decision making. The Commission merger procedure has been widely criticized for putting the function of prosecutor and judge into the same hand: those who investigate and write a statement of objections also write the decision.



Why is such a procedure so problematic? In penal law this is easy to see for everybody. Police and prosecutors can get so worked up about a case and can at some point convince themselves so thoroughly of the guilt of their favorite suspect that they loose out of sight that they have not really collected sufficient evidence. Indeed, often the suspect is innocent. The separation of powers means that a different person, say the judge, takes a close look at the case and all of the evidence and makes a decision on the basis of all the information provided by the prosecution and the defense. This has two big advantages: First, the prosecutor has, by the time he has put his case together, a stake in the outcome. He wants to be right and will naturally overlook flaws in his argument. Second, the separation of powers creates a very nice incentive system for the prosecutor who has to generate the information. The measure of the prosecutor's success now is given by his performance in court. A prosecutor who brings too many cases that he does not win will loose in reputation and will be assigned less important cases. He is revealed not to be as good as his colleagues. The result will be a much greater effort in obtaining persuasive evidence and making a watertight case. Note that these incentives are created without the need of any formal incentive systems. The institutional structure naturally creates a situation in which a prosecutor will obviously be good when he prevails in front of a judge. All the non-monetary benefits in a job like prestige and respect are connected to such outcomes.

It is immediately apparent that exactly the same incentive problem is present in merger cases. The case teams investigating the merger and, possibly, putting a case against the merger together have exactly the same function as prosecutors. But currently we have a procedure in which these same people write the decision.<sup>35</sup> Currently we neither have the nice feature that someone with a fresh mind takes another thorough look at the case, nor do we benefit from the incentive properties that a separation of investigation and decision-making has. This is different in other jurisdictions. In the United States the decision has to be made in a court, so that the relevant competition authority only has the investigative and prosecutorial function. Everything else is passed on to the court system. In Canada, even investigation and prosecution are formally separated and the decision is taken by the Competition Tribunal.<sup>36</sup>

It should be clear, however, that all that the main element that is needed is a functional separation of the investigation and the decision to prohibit a merger. This does not require the US system or the Canadian system, nor does it logically require decision making by a court. Clearly, an administration with a transparent functional separation of investigation and decision-making, including a clear separation of personnel, could serve the incentive purposes we desire. Indeed, an administrative body might be able to more efficiently

35 It should be clear to any reader that the formal decision power lies with the Competition Commissioner and the full Commission. However, what is essential for a decision is who writes it. Everything else is little more than formalism unless political considerations take precedent over detailed case assessment.

36 The current review process by the legal services of the Commission clearly cannot play this role. The essence of a system of checks and balances is that the identity of the person that writes the decision is different from the one who writes the complaint. The position in the legal service is equivalent to a system in which the prosecutor writes the judgment and the judge would be allowed to edit it.

introduce high quality enterprise into the process. More importantly, a reform should aim to achieve functional separation at a minimal cost in terms of uprooting the established institutional structures of the executive and legal branches in the European Union. All of this suggests that we should attempt to look for a procedure with functional separation that maintains as much of the current structure intact as possible.

I would suggest to either split the Merger Task Force into an investigative and a decision making branch or, alternatively, leave only investigative powers to the MTF and leave decision making to another entity in DG Competition. What is crucial is that both branches have the same level in the organizational hierarchy. This separation could leave much of the existing structure in place. Case teams would be conducting phase 1 of the merger and could decide whether to start a more in depth investigation as phase 2. If phase two were reached the case team would investigate further and either clear the merger or put together the statement of objections. From this point onwards the control over the process would shift to the decision making body. It would receive the parties' responses to the statement of objections, conduct the oral hearing and then write a decision on the basis of the submitted papers, the oral hearing, and the inclusion of any advisory bodies that would be maintained. I would also give the decision making body the power to consult with external expert advice at some point in the procedure.

I would also keep a possibility for remedies being offered and accepted in phase 1 of the procedure. The appropriateness of such phase 1 remedy demands will in the suggested procedure be subject to an almost immediate review if the parties find the demands of the investigating team excessive and believe they can prevail in phase 2. But the possibility of offering remedies in phase 1 would give firms the chance to clear a merger fast when low cost remedies are available and sufficiently obvious. Going through a phase 2 procedure in this case would only generate unnecessary cost.

The decision making body could be built on the institution of the hearing officer, just with a vastly expanded role. This would fit into the incremental policy changes that we have seen in which the hearing officer has been given a more important role. But it should be clear that the effective role of such a position would dramatically change.

Furthermore, the nature of the oral hearing has to change in order to turn it into a device by which the decision maker can extract relevant information for the decision. Currently, the oral hearing is considered to be the "day of the parties." The informational content is greatly diminished because in principle only informational questions are allowed. A more effective procedure would make the oral hearing closer to a court hearing—in this case presided by the decision making "hearing officer" or the decision making panel. Both the case team and the merging parties would make their cases. Speakers and experts on behalf of both sides should be subject to cross-examination.

The current oral hearing is often very uninformative, especially because the expert presentations cannot be effectively questioned. Allowing for systematic hostile questioning would reveal more about the relative merits of expert opinions in such situations.

I would dramatically reduce the role of the interested parties in the oral hearing. This would not reduce their ability to make written representations in the process, but it should

be a matter for the case team to decide whether they want to present testimony from the intervening parties in their presentation against the merger. The reason for this is the questionable role of intervening parties in mergers that I have discussed in Section 2.4. The process should give control to the case team to decide whether these parties have relevant objections that would support blocking a merger and should build those into its own argument. Anything else would just reduce the efficiency of the information generating function of the oral hearing.<sup>37</sup>

It is important to see clearly how this system would help to alleviate many of the concerns about current merger proceedings that I have raised in Section 2. The procedure would generate very strong incentives for the case team to present a watertight case to the decision-making unit and at the oral hearing. A case team leader would come to be evaluated by his or her success rate in turning statements of objections into actual adverse decisions. This will clearly depend on the quality of reasoning and the quality of the evidence presented in the SO and at the oral hearing. This could then be supplemented through an incentive system in which the most interesting or most important cases go to leaders of case teams who have the highest success rate (weighted by the number of cases they brought). Alternatively, case team leaders could choose their cases in priority order given by their success rating. I do not think it is essential to implement such incentives explicitly. Indeed many non-economists would be very suspicious of them. But I do believe that such incentives are automatically created informally when such separation of powers is instituted. Perseverance of the investigator in front of the decision maker becomes the obvious measure for success in such a structure. Success will be rewarded not only through prestige. A head of an investigative unit will want to allocate his most successful investigators to the most difficult cases in order to build a good track record for himself. Much of the incentive structure that I envision will automatically be created through the separation of powers itself without the need for explicit incentive systems.

Since the merging parties economic expertise against the claims in the SO, this procedure gives very strong incentives to eliminate the current deficiencies in economic reasoning and evidentiary standards that have caused most of the worries in recent cases. It would help to put prohibitions of mergers on a more solid grounding. The system also addresses the issue of regulatory capture. The procedure does not give intervening parties direct access to the decision maker. As far as intervening parties influence the case team, this will be reflected in the case team performance measured by its success in obtaining a decision to block the merger. If intervening parties steer the case team onto ground that is not solid this will increase the likelihood of poor performance by the case team. But the case team is not prevented from using all the information available including that from all interested parties. Full access of interested parties to an investigative body is appropriate. Reliance on interested parties for writing decisions is not.

<sup>37</sup> It is, however, worth considering allowing parties that would be captured under a label of joint dominance in potential decision to intervene explicitly at the oral hearing. Obviously, there are many issues of notification and due legal process for such indirectly affected parties, which I will ignore in this paper.

There may be a worry that this system would create some bias in the direction of letting mergers pass. But I do not propose to make this change the only way of addressing the current accountability problem in European merger evaluation. The suggestions made below should complement the measure I suggest here. Furthermore, one could consider adjusting the burden of proof requirements to the institutional structure adopted. For example, in the case of adopting the procedure above, but only in this case, it could be considered whether one adjusts the burden of proof in favor of the investigator to counterbalance any disincentives to bring mergers to the statement of objection phase. But it appears that such a decision should only be made after a thorough investigation of practices under the new regime.

In addition to this central task of separating the investigative and decision-making powers in the Commission, other measures like a faster judicial review of the decisions can only help to strengthen the integrity of the process. Indeed, a faster judicial review process can help giving incentives to the decision making unit not to implicitly collaborate with the investigative case team that, after all, may be housed in the same building. However, the speeding up of the judicial process will not be as effective on its own as the separation of investigative and decision powers proposed above. Even swift court revisions in the new fast track procedure are currently not faster than 9 months. This will still imply such significant delays on disputed merger decisions that an effective review will not be of much use to a majority of merging parties. This means that the incentives to use the legal process will remain relatively small. But, nevertheless court review is of importance. It is necessary as part of the incentives given to the decision making body. The availability of the new fast track procedure is therefore an important ingredient for an overall improvement of the incentive system even in a system that has separated investigative and decision making units.

But why not be more radical in changing the European merger review system, for example, by copying the US system, or creating an agency that is independent of the Commission? I believe there are three arguments that are important for limiting the scope for institutional change. First, such radical move would require a dramatic change either in the European legal system or in the organizational structure of the European Union. It therefore seems politically very difficult to achieve and certainly would be a very costly move. Second, maintaining an administrative procedure would preserve a system that, relative the US system, has the advantage that tighter deadlines of merger proceedings can be maintained in most cases (even if the separation might have to imply a loosening of the current time frame). Given that I believe the suggested separation within the Commission would go a long way to create appropriate incentives, it appears that we can obtain most of the benefits of institutional reform at much lower costs by developing proposals that maintain the general institutional framework. However, there may be some features of current institutions that can prove to be a very significant hindrance to achieving the reforms outlined above. For example, one may worry whether a separation of functions within the structure of the Commission could effectively be implemented. At least one commentator on an earlier version of this paper was concerned about the status of the investigative body in the Commission hierarchy. He argued that lawyers want to write decisions and as a result there would be little demand to work in the investigative

branch. I do not believe that this is a problem that cannot be resolved. After all, there exist prosecutors in the legal system as well, despite the fact that they do not write decisions. I believe the essential task is to place the investigative and decision branch of merger control at the same level of the organizational hierarchy. I think, it is particularly important that in terms of status and influence on general policymaking, *i.e.* in reviews of merger policy, general practices *etc.*, the heads of each of the two branches of merger policy have equal status. Indeed, this may work in favor of having the heads of each branch of merger policy have the same rank in hierarchy as the current head of the merger task force.

#### 4.2. *Creating internal checks and balances*

A further way of creating checks and balances is to create organizational structures that systematically use the non-monetary incentives motivating the individuals and promote the presence of a variety of perspectives on a problem. This would affect both the internal organization of the Merger Task Force in the way that it uses existing resources as well as strategies that help in the recruitment of appropriate staff. In this section, I will first discuss improvements in the use of economic expertise within the Commission to serve these goals. I will then consider how some of these insights can be extended beyond the issue of economic expertise.

Currently, economists work in the MTF along side other staff as case team members in merger cases. This makes all of them fully integrated into the general staff and very much aligns their perspectives with those of the case team. This type of organization has several disadvantages and inefficiencies attached to it. First, it means that it is difficult to attract economists of a high enough qualification to join the MTF. Joining the MTF means to give up any academic ambitions for the future and also any hope to work with a strong team of other economists. This is different for economists joining consultancies. There they mostly work with other economists with strong academic training and also have greater exposure to working with academic economists in specific cases. A strong empirically oriented Ph.D. will find a consultancy environment highly rewarding but will not feel that his or her skills are really used in the environment of the MTF. For highly qualified Ph.D.'s a consulting job will therefore be of much greater interest than a position in the MTF. More research-oriented academics can typically not be attracted.

Second, there is the problem that careful economic reasoning is a skill that is only maintained by regular practice. For many economic questions plausibility arguments are very seductive. They may seem very convincing at first sight and sound very clever to non-specialists. Unfortunately, more often than not, plausibility arguments turn out to be incorrect when subjected to careful analysis. In a world in which there is a premium in providing a "convincing argument" but not much of an incentive to "get it right," good economic reasoning easily falls by the wayside. Many excellent economists are known to have succumbed to the attractiveness of erroneous plausibility arguments that favored their clients whenever they felt that they were not under much scrutiny by their peers. In contrast, good economic analysis thrives in environments in

which economists are encouraged to constantly challenge their own arguments because they have to prove themselves with respect to their peers. In other words, an organization should try to organize itself in such a way that professional pride can be used for incentive purposes.

One way to tap into this potential is to separate out the most qualified economists at the Ph.D. level into a separate economics group that provides services to the case teams. First, this is a much more effective way of using the scarce resource of economic expertise. It seems to be more sensible to use the best economists in the Commission to think about the most difficult issues on many cases instead of occupying their time with a big chunk of regular casework. Task allocation in consultancy certainly works this way. Second, a separate identity for an economics group also implicitly creates a role of controlling the quality of the economic arguments for such a group. This immediately creates checks and balances within the Commission because the objectives for such a group are not necessarily aligned with the objectives and conclusions of the case team. Giving an identifiable group the explicit role of asking the question “Is this really right?” can simply be very beneficial for quality control purposes. Again the market place is creating these types of solutions on the other side of the merger control process. Economic consultancies often use academic economists just for such quality control purposes. In many national jurisdictions, especially in the United States, such creation of economist groups as service departments for the case teams is standard practice.

On the side of legal expertise this idea has a tradition in the Commission. The legal services play exactly the role of internal quality control for legal arguments generally for the Commission and specifically for all of DG competition. Clearly this is not enough to create a system with checks and balances, but it is an important part of the internal incentive system in the Commission. European merger policy could reap similar benefits from replicating this at a much smaller scale in terms of services in economic analysis.

The practice has a third benefit in terms of recruiting quality personnel. Given revealed preferences on the economics job market, newly minted Ph.D.’s typically rank possible employment opportunities by the quality of the research environment or by the degree to which the environment is similar to a research environment. This would certainly be more likely to be the case with an economics group. Clearly, the quality of new recruits will be higher when the job also allows maintaining research activities to some extent—as is the case in the FTC and the DoJ. For example, such groups do some of their own research, often inspired by their casework. They also hold regular research seminars, which allow them to stay connected to modern research in a way that pure reading of academic journals does not allow. There are a number of economists who have successfully moved from DoJ and FTC staff positions back into the academic world. The MTF or DG Competition would be in a good position for creating such a group and making it attractive due to the economic research resources in Brussels and its proximity. Appointing a chief economist from the outside to head such a group—as has been recently discussed—would certainly be helpful. But it should be clear that simply appointing a chief economist without such a supporting group would have only small impact on actual policy making. It would also not be an attractive appointment for

candidates with strong research records. For the Commission in turn, the key is to create a strong support structure of internal economic advice. To achieve this goal changes of the organizational structure are more important in the long run than the figure of a chief economist itself.

Since the same expertise is needed for merger and for other competition policy cases, it is probably practical to create this group outside the merger task force as a general resource for DG Competition. Such separation would enhance the checks and balances function of such a group and it would also make it easier to provide the “chief economist” with a position that would guarantee sufficient authority in the hierarchy.

It should be stressed that a move in the direction of a separate strongly qualified economics group would not require creating a group of 60 economists as, for example, in the FTC. This would, of course, be a completely unrealistic goal. The aim should be to have a group with some critical mass of, say, at least 5 Ph.D. level economists. These should be used as a central resource advising across a range of cases. In addition, the Commission should continue its practice of involving outside economic experts, which would then be made to interact with the in house expert staff. With the in house expertise of a significant group of economists the Commission would be in a much better position to utilize outside expertise.

A final and related point concerns the structure of appointments. The United States has been so successful in attracting staff with strong economic skills into their anti-trust agencies by relying heavily on temporary appointments. This gives research-oriented economists with an interest in policy the possibility to fill such a position without having to give up a serious academic career. This holds not just for a chief economist position, but would hold generally for an economics group with Ph.D. level qualification.

A strategy that would use more temporal appointments could more generally help in improving internal checks and balances, by exposing the MTF to views formed by outside experience. For example, a stronger rotation between consultancy and appointments in competition agencies would be a desirable factor for improving decision-making. It would assure that there are some personnel that have thought about competition issues trying to argue the side of firms. Such a person will be much more likely to spot weaknesses in Commission arguments against firms and therefore contribute to the quality of economic reasoning.<sup>38</sup>

The greatest hurdle for improvements in this dimension may come from restrictions on hiring policies imposed by EU employment rules. If the EU civil servant system cannot accommodate changes in this direction this would be the primary reason to seek more radical reform of the institutional structure of European merger policy.

38 The reader should note that such practices would not lead to the types of capture problems we would fear for other regulatory institutions. Problems arise there because there are a limited number of firms in the industry and there is a long term relationship between the regulator and the firm. Switches of personnel between the regulator and the firms can then contribute to regulatory capture. In competition and merger cases, the identity of the firms changes from case to case. There will always be many cases in which a particular former consultant will have never before advised that firm. It would be easy to devise conflict of interest rules so that such a person does not work on cases of former clients.

#### 4.3. Checks and balances through outside review: Transparency

One of the features considered a strength of the European merger regulation by the Commission are its formal measures for transparency of Commission decisions. All decisions have to be published. Indeed, many economists would assess competition policy and the quality of the Commission arguments to a large degree from the published record.

Unfortunately, real transparency is by far not as high as suggested by such rules of publication. Someone who has participated in specific cases will quickly recognize that the published decision often differs greatly from what the parties thought the relevant issues in the case were. The case is always presented from the point of view of the Commission, and whole strands of argument the Commission did not consider relevant are often simply suppressed. Furthermore, almost any decision is selective in the evidence it presents by suppressing data brought forward against the Commission's argument. But the greatest problems with transparency do not arise from the subjective decisions of the Commission about presenting the case. A crucial problem for effective transparency is that most of the evidence never makes it into the public documentation of the case, because it will be purged from the public version of the documents due to confidentiality considerations. In most cases, the critical issues revolve around the determination of market boundaries and market shares and the assessment of evidence as to the degree of market power achieved through the merger. The relevant data necessary to evaluate this is basically never a part of the public record. Hence, there exists no transparency such that outside observers could criticize the Commission in a rigorous way.

What this implies is that it is feasible for outside observers like academic economists to assess the theories on which the Commission decision is based. This is guaranteed by the publication of the Commission decision. However, it is impossible to assess from the outside whether the empirical methods used are valid and whether the evidence obtained by the Commission justifies the conclusions in the decision.

I see two possible ways to improve this situation. First, it may be possible to slightly increase the amount of data that can be published. Currently, anything that a firm considers confidential is blocked out in the public decision. This includes most of the time market share figures. Paradoxically, often this suppresses information that is available to all rivals of the firm through industry associations or other information sharing systems. One might therefore consider that information that is distributed by industry associations among all competitors in the industry should not be subject to confidentiality rules. The same would hold, for example, for numbers compiled from publicly available information sources. Confidentiality of such data simply makes little sense.

A more effective way of guaranteeing some review of past cases in the absence of more general transparency would be through institutionalizing a systematic *ex post* review process by experts outside the Commission. They would be subject to all the confidentiality rules of Commission members involved in the cases, but would be allowed to fully review the case materials in order to report to the Competition Commissioner on the quality of individual case assessments. An institutionalized review this kind appears



to be of great importance in order to have a full review of Commission practices. To see the basic problem even with the incentive systems outlined is that the only reviews that ever take place occur after mergers are blocked. Hence, cases that are not appealed and all cases that are not blocked are never made subject to a systematic review. For example, bad practice can be established in a case like EMI/Warner, but since the parties dropped the merger, there is no way to systematically analyze the flaws in the Commission arguments in the case. More importantly, there is important evidence that many mergers that should be blocked are not (see Neven and Röller, 2002). Excessive leniency will never be detected in a system that has a review procedure only for mergers that are blocked. Indeed, this is a significant problem also in the US system, in which many argue that the effective standard for blocking mergers has become more and more lenient compared to the merger guidelines. However, there is no way of confirming or disproving this claim in the absence of any review possibility for such cases. Institutionalizing outside review would therefore give much greater possibilities for self correction when actual merger assessments get out of line with what experts consider best practice. Indeed, it seems the best insurance against a bias towards excessive leniency.

##### **5. Improving the remedies procedure**

Since the determination of appropriate remedies in merger cases is thorny one, it is unsurprising that a good procedure for discussing remedies is no less problematic. There is little doubt that current practice is unsatisfactory both for the Commission and the merging parties. At the same time it is a very hard task to find a good way of dealing with remedies in the time frame allowed by the merger regulation. One of the greatest problems arises from the deadlines of the process. If the parties fully use the time allotted for developing suggestions for remedies, time becomes extremely short for the Commission to assess the adequacy of the suggested remedies. As I have discussed there are strong incentives for the parties not to propose remedies until late in the process because of their signaling function. In the Green Paper the Commission states that parties tend to find it problematic to defend themselves against the case and discuss remedies at the same time. This seems another way of stating the same problems. Parties understandably do not want decisions to be colored by remedy discussions.

The result is that in cases with serious and complicated remedy discussions the clock tends to run out on the Commission and the parties. With insufficient time to assess the remedies the Commission will have a tendency to block mergers that might have gone through with a more elaborate remedy discussion.

The Commission has proposed a “stop-the-clock” provision. According to this provision the merging parties could stop the clock at the end of phase 2 in order to prolong the time for a satisfactory remedy discussion. (A similar procedure is considered for phase 1). The stop the clock provision in itself will not change the initial problem that there are strong incentives to delay the remedy discussion. Indeed, some of the delay problems should be expected to be increased. First, making proposals only close or at the

deadline becomes more attractive because it is more likely that such a proposal will go through. Given that there is typically ongoing negotiation about the remedies (see the newspaper reports on GE/Honeywell cited above) such a stop-the-clock proposal would also give more incentives to the merging parties to make more incremental offers. But there is also the possibility of gaming the system by the Commission. There is an incentive to keep demands high to extract as much as possible from the merging parties, knowing that firms with large merger benefits would stop the clock to continue negotiation. It is therefore very hard to avoid that most of the serious negotiations take place at the very end of the feasible process.

While I believe that the stop-clock-provision will therefore change very little as regards the observed bunching of remedy negotiations at the deadlines, the implied extension of time for research of remedies in cases where they are important, may have substantial benefits for the quality of the negotiations. Currently, I believe that remedies are not well researched on either the merging parties side or on the side of the Commission. It is therefore quite possible that they often impose unnecessarily high costs on the firms or do not appropriately address the competition concerns. For this reason the stop-the-clock provision is probably a good idea.

Another question is whether one can design the process in such a way that the remedies discussion can be brought forward without detrimental effect on the firms' case. One way one could suggest is that Commission would be required to state what precise problems could be addressed with which the types of remedies in the statement of objection. This would give increased incentives to the Commission to specify more clearly the main competition problem and the order of magnitude of the commitments needed to overcome its objections. This is a natural part of the initial market analysis.

A separation of the role of investigation and decision-making in the Commission could then also facilitate the early investigation of commitments. The parties could be required to submit to the investigative team suggestions for commitments at the same time as its answer to the SO is delivered to the decision making body. The effects of such potential commitments can then be investigated by the investigative team while the decision making body reviews the SO, the response of the parties to the SO, as well as the information revealed at the oral hearing. The proposed remedies by the parties and the assessment by the investigative team would only be revealed to the decision makers at the time they have made a determination on the basic objections of the investigative team. This would allow a parallel investigation of remedies without biasing the basic outcome of the case.

The attractiveness of such a procedure principally comes from helping to preserve relatively tight deadlines in European merger control. Second, it would induce firms to think about remedies much earlier in the process, which would often allow more imaginative and more efficient remedies to be employed. In principle it would be desirable that firms studied alternative options for remedies in case of competition objections even before they started the merger proceedings. For example, the discussions with investment bankers on the profitability of the proposed transaction should include the different possible options for remedied transactions taking account of competition concerns. My impression is that this is usually not done, but that a procedure that brings

remedy discussions forward would further incentivize a development in this direction, which could ultimately benefit merging firms.

## **6. Applications of the analysis to jurisdictional issues**

From the point of view of a narrow focus on a revision of the European Merger Regulation jurisdictional issues are at the heart of the exercise. Consequently, the Green Paper is to a large extent focused on issues like multiple filings, delegation of decision making to member state competition agencies, referral of cases from multiple jurisdictions to the Commission, as well as the legal definition of concentrations that fall under the merger regulation. In this paper I do not attempt to do justice to this important part of the Green Paper. Partly, this is a reflection of where I think the priorities for efforts to improve European merger review should lie: on improving the quality of merger control decisions. Jurisdictional issues primarily determine who takes the decision, not what decision is taken. This is one reason why it is not the primary focus of the paper. The second reason is that economic analysis has much less to say about who should take the decision than how it should be taken. The main question, I will therefore address in this section is to what extent the content of merger decisions should bias the determination of jurisdiction for or against more centralization of merger decisions. This is essentially what the discussion about thresholds is about.

First, it should be clear that there is one clear efficiency reason that pushes in the direction of more centralization. Multiple filings simply introduce massive inefficiency in the process if we have a fairly harmonized system of merger control in Europe. They should therefore be eliminated as much as possible, which works in the direction of centralization. In addition such mergers should be decided by one jurisdiction because the question whether there are many national markets or wider markets can only be decided by a market definition exercise. It then appears to make more sense to use the number of jurisdictions in which a merger would have to be notified as a criterion than some benchmark of firm size.

The main argument against more centralization often appears to be that local competition authorities are better at evaluating local markets. From my perspective this is not clear. There is no clear reason why a local authority should have better access to data on the merger than the Commission or should be better at interpreting local data. Indeed, the opposite argument could be made that local authorities may well be biased against some firms that have a “bad” reputation in the country. There are, of course, also no strong reasons to move clearly national or regional transactions to Brussels.

The more compelling question is whether we should make better use of the overall resources in competition analysis that are available across the Commission and the authorities of the member states. If there are excess capacities at the national level and capacity constraints at the level of the Commission (at least sometimes) it appears reasonable to have instruments to delegate decisions to a national authority.

How far to push such sharing of decision making between the Commission and the national authorities has to be discussed in the context of the substantive problems of

European Merger policy that we have identified in this paper. In particular, if national authorities are less subject to these problems, there is a reason to resist further centralization and encourage delegation. If national authorities have similar or more severe problems we should err more on the side of centralization since reform is easier to implement at the Commission level than in several national authorities.

There are, of course, a wide variety of experiences with national authorities in the European Union. However, there are only few that have reached the level of sophistication in its economic analysis that has been reached by the Commission. Even some large authorities seem to lag behind in the inclusion of economically appropriate standards of analysis. An example for such problems may be the experience of Germany. Part of the problem there arises because of rigid market share benchmarking imposed by the law, which discourages the economic analysis of market power. But even in those areas in which one would still expect an important influence in economic analysis, like market definition, the state of analysis is not encouraging. The use of simple techniques such as correlation analysis still appears to be virtually unknown, let alone more recent and more sophisticated methods. In those cases I have reviewed recently, market definitions were clearly too wide or too narrow and sometimes appeared arbitrarily set in the direction of the desired outcome. Virtually every Bundeskartellamt decision I have read includes theoretically untenable claims and conclusions that do not follow from the stated evidence.

These impressionistic insights appear to be reflected by the consulting market. Until recently the top European consultancies in competition matters were almost never hired by German lawyers. This has changed in recent years on the European level, but only very slowly for German cases. The only cases I am aware of in which more sophisticated economic advice was given, were cases in which it was not initially clear whether jurisdiction would lie with the Commission or not. It is also no secret that that economic expertise in the Bundeskartellamt is significantly scarcer relative to the case load than at the Commission.

I cannot judge, how widespread these problems are across member countries. But if only one agency in a major member country has a less rigorous economic analysis of mergers than the Commission, a policy of further delegation of cases from the Commission to the national authorities is problematic. The resources that are truly scarce are not necessarily available at the national levels.<sup>39</sup> Furthermore, improving resources in terms of real expertise will be much easier for the Commission than for national authorities given the greater prominence of cases to be dealt with. Overall a greater delegation may therefore undermine the efforts to strengthen content and procedures at the European level. There seems to be no reasonable way around the Commission's resource problem other than to enhance the resources available to the MTF directly.

39 And delegation only to "good" national authorities would probably create more conflict than it would help in terms of reducing the case load pressure at the European level.

## 7. Priorities for reform

Our discussion allows us to draw some conclusions on the priorities for a reform of the European merger control process. The weaknesses we have identified in recent decisions suggest that the reform of the process should have priority in efforts to improve the European merger procedure. In particular, the separation of the investigative and decision making function of the MTF need to be separated to create the checks and balances in the system that are needed to increase the incentives for rigorous merger analysis at the investigative stage. In contrast, changes in the regulation to a SLC standard or the introduction of efficiency defenses appear to create uncertainty and, possibly, more scope for discretion. Neither is desirable at this point in time. Instead, the focus in this area should lie in the development of merger guidelines that provide a clear reference framework for analysis and standards for empirical assessment. It is desirable to create safe haven and presumption benchmarks both for unilateral and coordinated effects of mergers. These should be relatively tight in the face of increased availability of more rigorous empirical methods for merger assessment.

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