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FOREWORD

This document comprises proceedings in the original languages of a Roundtable on Managing Complex Merger Cases held by the Competition Committee (Working Party No. 3 on Co-operation and Enforcement) in October 2007.

It is published under the responsibility of the Secretary General of the OECD to bring information on this topic to the attention of a wider audience.

This compilation is one of a series of publications entitled "Competition Policy Roundtables".

PRÉFACE

Ce document rassemble la documentation dans la langue d'origine dans laquelle elle a été soumise, relative à une table ronde sur la Gestion des Fusions Complexes qui s'est tenue en octobre 2007 dans le cadre du Comité de la concurrence (Groupe de Travail No. 3 sur la coopération et l'application de la loi).

Il est publié sous la responsabilité du Secrétaire général de l'OCDE, afin de porter à la connaissance d'un large public les éléments d'information qui ont été réunis à cette occasion.

Cette compilation fait partie de la série intitulée "Les tables rondes sur la politique de la concurrence".

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EXECUTIVE SUMMARY

By the Secretariat

Considering the discussion at the roundtable and the member country submissions a number of key points emerge:

(1) The assessment of mergers has become increasingly complex, as agencies confront challenging analytical issues, complex contractual arrangements, sophisticated technology or complex regulatory regimes which affect the analysis of competitive effects or the assessment of needed remedies.

Modern antitrust analysis is sophisticated, challenging and complex. This is particularly the case in the field of merger control. Defining the relevant markets, assessing if the merging firms will have market power, analysing the competitive effects of the transaction, and assessing and quantifying likely efficiencies, are complex exercises central to the review of many mergers. Investigating such transactions, often under strict statutory deadlines, is challenging and requires sophisticated analyses and expertise.

Competition authorities frequently rely on statistical, econometric or other advanced quantitative techniques for complex merger analysis. These techniques require careful data gathering and systematic processing. Agencies may need to request vast amounts of data from the merging parties or to launch extensive market surveys so they can reach well-grounded and robust conclusions. In new or highly technological industries, merger review requires sophisticated technical expertise that competition authorities may not always have available in-house. With limited financial and human resources, competition authorities are forced to organise carefully their internal investigation process in order to accommodate the complexity of the review process or to seek assistance and advice externally.

(2) Collecting and managing large amounts of information in a limited time and with limited resources is a key challenge in complex merger matters. As early as possible in the process, agencies must determine what information is needed, how to get it and at what stage of the procedure to request it.

Tight deadlines, limited resources, and the need for a large amount of information force agencies to plan their fact-finding strategy carefully. Identifying what information the agency needs to address complex analytical issues, where to find it and how to get it are very important decisions. Subsequently, ensuring the completeness, the correctness and the reliability of the information collected becomes the foundation of a sound substantive analysis. The sources of this information can be multiple: the merging parties, other market players, third party consultants, public agencies and regulators (provided that the legal context allows the exchange of this information among public administrations). The potential to tap multiple sources might appear to facilitate the work of the agency; however, it might also just add another layer of complexity, if data from different sources is inconsistent.

Delegations emphasised the importance of identifying at an early stage the type of information needed for the analysis, in order for agencies to plan the information gathering process

efficiently. Drafting effective requests for information, ensuring that a consistent data set is collected from different sources and checking the quality and robustness of the data gathered are key steps in this process. In some instances, agencies have to face reality: the data simply does not exist or does not exist in the format required for the analysis. In these cases, agencies may have to launch extensive surveys of competitors or customers. A number of delegations emphasised that designing surveys that are bias-free and ensuring that the surveys are able to probe the interests at stake are very important concerns, which must be addressed as early as possible. Other practical issues that must be addressed at an early stage include approving the budget for external consultants and having the right software available to review the data, as well somebody with experience using that software.

(3) New quantitative techniques are used commonly now, despite their complexity, to support the analysis of merger cases. All delegations agreed on the benefits of quantitative analyses to support -- but not to substitute for -- the more traditional qualitative techniques. Many delegations, however, also acknowledged the implicit limits in econometrics and in merger modelling and the need to have reality checks to ensure sound conclusions.

The use of econometrics and other quantitative techniques to assess complex mergers is widespread among OECD competition agencies. Many antitrust agencies increasingly address the complex issues arising in mergers through the use of statistical, econometric or other advanced quantitative techniques. Both large, long-established agencies and smaller, newer agencies reported using a variety of these relatively new analytical tools. These techniques have been used in a variety of contexts and to address issues such as defining the relevant market, measuring market power, analysing unilateral or co-ordinated effects and quantifying likely efficiency gains.

The discussion showed a surprising agreement on both the value and limitations of these quantitative and statistical approaches. These new analytical tools could increase the precision of the analysis and make it easier to consider and simulate different consequences based on different assumptions. However, some delegations cautioned that quantitative analysis can only be meaningful if it relies a sound and consistent data set. Many delegations agreed that obtaining and processing the information is one of the key challenges.

All delegations agreed that the outcome of the analysis, however, depends entirely on the model selected as well as on the quality of the data used. For this reason, agency decisions can never rely solely on econometric modelling.. The analysis takes time and talent, and often both are in short supply given the restrictions that agencies have to deal with in the merger process. This process cannot be automated. Rather, any good model must be based on a firm understanding of the characteristics of the industry. In general, models and econometric analysis must pass a “common sense” test. A review of country experiences with models shows that simulations, surveys and market studies can be very useful, but as complements to traditional tools and techniques, not substitutes for them.

SYNTHESE

Par le Secrétariat

Des débats de la table ronde et des contributions soumises par les pays Membres, il se dégage un certain nombre de points essentiels :

(1) L'évaluation des fusions devient de plus en plus complexe car les autorités de concurrence sont confrontées à de difficiles problèmes analytiques, à des dispositifs contractuels compliqués, à une technologie pointue ou à des régimes réglementaires complexes qui rendent difficile l'analyse des effets des fusions sur la concurrence ou l'évaluation des mesures correctrices requises.

L'analyse moderne de la situation de la concurrence est subtile, difficile et complexe. Cela vaut tout particulièrement dans le domaine du contrôle des opérations de concentration. Définir les marchés en cause, déterminer si les entreprises qui fusionnent détiendront un pouvoir de marché, analyser les effets de l'opération sur la concurrence et évaluer et quantifier les gains d'efficacité probables sont des exercices complexes, de première importance pour l'examen de nombreuses fusions. Étudier ces opérations, souvent dans des délais légaux stricts, est une tâche ardue qui requiert des analyses et des compétences d'expert très pointues.

Les autorités en charge de la concurrence recourent souvent à des techniques statistiques, économétriques ou d'autres techniques quantitatives très perfectionnées pour analyser les fusions complexes. Ces techniques exigent un travail rigoureux de collecte et de traitement systématique des données. Les autorités peuvent être obligées de demander d'énormes quantités de données aux parties à la fusion ou de lancer de vastes enquêtes sur le marché afin de pouvoir tirer des conclusions solides et fiables. Dans le secteur des nouvelles ou hautes technologies, l'examen des fusions requiert un haut niveau d'expertise technique que les autorités de la concurrence n'ont pas toujours à leur disposition. Avec des ressources financières et humaines limitées, elles sont forcées d'organiser soigneusement leur travail d'enquête interne afin de s'adapter à la complexité de l'examen ou de solliciter une assistance et des conseils à l'extérieur.

(2) La collecte et la gestion de volumes importants d'informations dans des délais stricts et avec des ressources limitées est une tâche exigeante, essentielle pour l'examen des fusions complexes. Dès que possible au cours du processus, il faut déterminer quelles sont les données nécessaires, comment les obtenir et à quel stade des travaux les demander.

Des délais serrés, des ressources limitées et la nécessité d'obtenir une grande quantité d'informations oblige les autorités de concurrence à planifier avec soin leur stratégie d'enquête. Déterminer les informations qui sont nécessaires pour résoudre des problèmes analytiques complexes, où les trouver et comment se les procurer est une décision très importante. Ensuite, la vérification de l'exhaustivité, de l'exactitude et de la fiabilité des données recueillies devient la base d'une saine analyse de fond. Les sources d'informations peuvent être multiples : les parties à la fusion, d'autres acteurs du marché, des consultants indépendants, des organismes publics et des

autorités de réglementation (à condition que le contexte juridique permette l'échanges d'informations de ce type entre administrations publiques). La possibilité de s'adresser à des diverses sources peut paraître faciliter le travail ; mais cela peut aussi ne faire qu'ajouter un degré supplémentaire de complexité si les données en provenance des différentes sources ne concordent pas.

Les délégations ont souligné l'importance de déterminer à un stade précoce le type d'informations nécessaires pour l'analyse, de façon à pouvoir planifier efficacement le processus de collecte de données. L'établissement des demandes de renseignements, la vérification de la cohérence des données recueillies auprès de différentes sources et de la qualité et de la fiabilité de ces données sont des étapes essentielles. Dans certains cas, les autorités doivent se rendre à l'évidence : les données n'existent tout simplement pas ou ne sont pas disponibles sous la forme requise pour l'analyse. Dans ces cas, les autorités de concurrence peuvent être obligées de lancer de vastes enquêtes sur les concurrents ou les clients. Un certain nombre de délégations ont souligné combien il est important de concevoir des enquêtes sans biais et de s'assurer qu'elles permettront d'examiner les intérêts en jeu, et qu'il convient de s'en préoccuper le plus tôt possible. Il faut aussi s'occuper très tôt d'autres aspects pratiques, notamment approuver le budget destiné aux consultants extérieurs et se procurer le logiciel nécessaire pour examiner les données, et trouver quelqu'un qui ait de l'expérience dans l'utilisation de ce logiciel.

(3) ***De nouvelles techniques quantitatives sont maintenant d'usage courant, en dépit de leur complexité, pour l'analyse des fusions. Toutes les délégations ont admis les avantages des analyses quantitatives à l'appui – mais non en remplacement – des techniques qualitatives plus traditionnelles. Bon nombre d'entre elles ont toutefois reconnu aussi les limites implicites de l'économétrie et de la modélisation des fusions et la nécessité de vérifier les résultats dans les faits afin de pouvoir tirer des conclusions valables.***

L'utilisation de l'économétrie et d'autres techniques quantitatives pour évaluer les fusions complexes est courante parmi les autorités de concurrence dans les pays de l'OCDE. Bon nombre d'entre elles cherchent de plus en plus à résoudre les problèmes complexes que posent les fusions au moyen de techniques statistiques, économétriques ou d'autres techniques quantitatives de pointe. Aussi bien les organismes importants, établis de longue date, que ceux qui sont plus petits et de création plus récente ont déclaré recourir à plusieurs de ces outils analytiques relativement nouveaux. Ces techniques sont appliquées dans divers contextes et pour des tâches telles que la définition du marché en cause, l'évaluation du pouvoir de marché, l'analyse des effets unilatéraux ou conjugués des fusions et la quantification des gains d'efficience à attendre.

Le débat a fait ressortir un accord surprenant tant sur la valeur et que sur les limites de ces méthodes quantitatives et statistiques. Ces nouveaux outils pourraient accroître la précision de l'analyse et aider à examiner et à simuler plus facilement différentes conséquences des fusions sur la base d'hypothèses diverses. Certaines délégations ont cependant averti que l'analyse quantitative ne peut avoir de sens que si elle repose sur un ensemble de données fiables et cohérentes. Bon nombre d'entre elles se sont accordées à penser que l'obtention et le traitement des données sont des tâches particulièrement importantes et difficiles.

Toutes les délégations ont admis que le résultat de l'analyse, toutefois, dépend entièrement du modèle choisi et de la qualité des données utilisées. Aussi les autorités de concurrence ne peuvent-elles fonder jamais leurs décisions uniquement sur la modélisation économétrique. L'analyse demande du temps et du talent, deux ingrédients qui sont souvent rares du fait des restrictions auxquelles les autorités se heurtent en matière d'examen des fusions. Ce processus ne peut pas être automatisé. Il faut plutôt choisir un bon modèle, fondé sur une excellente

compréhension des caractéristiques du secteur. En général, les modèles et les analyses économétriques doivent satisfaire au critère de « bon sens ». Si l'on examine l'expérience acquise par les pays en matière d'utilisation de modèles, on constate que les simulations, les enquêtes et les études de marché peuvent être fort utiles, mais en complément, et non en remplacement, des outils et techniques traditionnels.

CZECH REPUBLIC

1. Tools for obtaining information

Generally speaking, basic sources of information for the Czech Office for the Protection of Competition (the "Office") in the area of merger control include information from the pre-notification stage, the actual merger notification, information requested from the merging undertakings or third parties (e.g. competitors, suppliers, customers, associations, ministries, Czech Statistical Office, etc.), third party filings, oral hearings of the merging undertakings and of competitors or other undertakings, as well as information obtained by the Office in prior investigations of the same market sectors, studies or expert opinions of independent experts, and information in the public domain (press releases, scholarly articles and studies).

With a view to the efficiency of administrative proceedings, the full range of information sources does not have to be obtained and used in all mergers. In merger control cases where the preliminary analysis shows there are no prerequisites for serious impact on the competitive environment on the market in question (e.g. because of a low market share resulting from the merger and the shares of the merging undertakings, or the degree of market concentration), the Office generally relies on information provided by the merging undertakings and on information in the public domain which may further be verified by approaching third parties (competitors, professional organizations, Czech Statistical Office, etc). The Office approaches a broader range of entities in order to obtain written information or sets up oral hearings or commissions expert opinions or independent market studies only in case of concentrations giving rise to concerns that competition might be distorted.

1.1 Merger Approval Questionnaire

The basic tool for the collection of data, used in every individual case, is the Merger Approval Questionnaire which is one of the obligatory components of the application for initiation of proceedings. To obtain the relevant information at the initial stage of the proceeding is a key step in determining whether the case on hand does constitute a merger within the meaning of the law, whether such merger will be subject to approval by the Office, and whether the merger is such that potential distortion of competition can be ruled out in the initial stage of the administrative proceeding. The questionnaire thus makes it possible to take the first step towards an overall assessment of the merger, and further serves as a basis for potential further steps taken by the Office. As in most other jurisdictions, the Office does not require that the questionnaire be completed in full in cases which clearly have no potential for distortion of competition in the Czech Republic (e.g. one of the merging undertakings is not active on any relevant market in the Czech Republic), so as not to place an excessive burden on the parties.

As stated above, the Merger Approval Questionnaire provides a basic view of the transaction in question, and at the same time makes it possible to identify competition issues; as such, it serves as a basis for a more narrowly defined search for data, including written request for information, both in the form of answers to specific questions and requests for specific documents, oral hearings, witness examination, or local investigation.

1.2 Written request for information

The purpose of written request for information is in particular to obtain specific information and documents. This tool enables the parties to find the information requested, and to carefully consider or verify the answers. This tool is thus most suitable to obtain information on price levels or developments of prices of goods or services, information on goods or services on offer, list of competitors, customers, suppliers, including contact details, and, on the other hand, also the views and comments of the merging undertakings, as well as third parties, for instance, with respect to the definition of the relevant markets, economics of the deal, benefits of the transaction, etc. In some cases, it is necessary to obtain further additional information because the parties do not comment on an issue in a sufficient depth in the Questionnaire, or third parties are thus able to express their view of certain disputable issues.

Nevertheless, although a written request for information generally does represent a reliable source of factual information, the Office's experience suggests that this tool lacks the interactive element of dealings between the competition authority and the information provider. The Office then encounters situations when it is necessary to provide an additional clarification of a question posed to the party, or further details need to be obtained, which may further complicate the administrative proceeding and lead to protractions. This applies in particular to requests for information addressed to foreign entities, where in most cases the Office has to grant longer deadlines for the provision of information, e.g. with a view to the necessity of procuring a translation of the document, and the time required for delivery. Furthermore, greater costs entailed by such correspondence have to be taken into account.

In some cases, the Office used **standardized questionnaires** designed for that purpose. These are simple forms with the name, registered seat and contact details of the company in the heading, followed by a series of questions (general or specific, depending on the situation) divided into four parts and concerning the definition of the relevant market, description of the situation on the market, entry barriers, and potential impacts of the merger on competition. For instance, in the first part, the Office inquires what the entity thinks of substitutability of the products in question, and provides possible definitions of the relevant product market, while in the second part, it inquires about the structure and characteristics of the market. The use of such standardized questionnaires did not turn out very useful in the investigation of specific issues. In most cases, an individual approach is required whereby questions have to be tailored in order to obtain the specific information required.

In this context, through its practical experience, the Office arrived at the conclusion that it is pointless to inquire about a subjective opinion on a specific issue, in particular when the respondent does not provide a sufficient explanation for its stance. Inquiries of this type generally include questions concerning future development on the relevant market, as it is virtually impossible to answer incorrectly, and as there is room for subjective assessment and speculation. This is why the Office prefers to assess future relevant market developments for instance by means of verified data sequences from the past which the respondents can easily supply and substantiate.

1.3 Oral hearings, witness examination

Another method for obtaining data in the process of merger control is direct contact between the Office and parties to the merger, or third parties. It mainly takes the form of oral hearings of the party to the proceeding and witness examination, less frequently also telephone conversations or presentation of the merger prior to the initiation of the merger approval process. All these methods constitute a way of obtaining the requisite information quickly and directly, to conduct an interactive dialogue and to immediately verify any issues that may arise subsequently. On the other hand, the interactive element means that questions have to be prepared more thoroughly.

The Office most frequently uses meetings held at its premises. Pursuant to Czech law, depending on who the parties are, it is possible to distinguish between an oral hearing of the party to the proceeding, and a witness examination. When these procedural acts are used, it is important to record the precise course and all answers of the parties involved precisely as presented, and a record is thus drawn up.

Where there are ambiguities but the situation does not require that an oral hearing be scheduled or a written request for information made, the ambiguity may be clarified by means of a telephone conversation, of which a record is made. However, this method involves a risk that it is impossible to verify the identity of the person on the other end. Therefore, if such record of a telephone conversation is to be used as a basis for the decision, the entity in question has to confirm the same in writing within a specified term.

Another option is for the merging parties to advise the Office of their intents through a **presentation made prior to the initiation of the proceeding itself**. This informal approach is suitable in particular to clarify any questions the parties may have in connection with the completion of the merger approval questionnaire, and the like. For instance, the Office has recently held consultations with ČSA – Czech Airlines (the most important Czech air carrier) who requested a pre-notification consultation from the Office with regard to the sale of two of its subsidiaries by means of a tender. The purpose of the same was in particular to assess whether and in what cases the turnover thresholds of the Office or the European Commission would be exceeded, whereby the transaction in question would have to be notified to the Office or to the European Commission as well.

1.4 Investigation at the premises

Although the institute of unannounced investigation is applied in particular in cases of prohibited agreements, it cannot be excluded as a means of obtaining information even in the area of merger control. So far, the Office has only used this approach once, in the case of the merger of *Karlovarské minerální vody/Poděbradka*[1], where the Office had suspected that the merger was being implemented before it actually rendered its decision on the merger. During this investigation, the Office had obtained information which helped to decide that the merger had *de facto* been implemented without a decision on approval, and concurrently imposed a fine and ordered measures to rectify the situation.

This is another case where preparation is of utmost importance, and so is coordination of the event if multiple entities are under investigation; it is equally important to comply with all of the procedural duties of the Office and to respect the rights of the investigated entity so as to minimize the risk that the action would be contested in court.

2. Examples of utilization of "external" information sources

First and foremost, it needs to be noted that the Office is mainly trying to rely on information obtained through "its own means", i.e. through the above mentioned methods, both for the sake of economy of proceedings and because of concerns that the information could potentially be distorted by the mediating party. Nevertheless, having said that, the Office availed itself of such external sources several times in its decision-making practice, in particular in cases of utmost complexity, both with respect to relevant market definition and impact on competition. For the purposes of this contribution, we can mention in particular merger cases where the Office drew on **expert studies** or **expert opinions,** or **consumer surveys**.

[1] See decision of the Office No. S 224/03 – KMV

For instance, in the case of *UPC/Karneval Media/Forcable*[2] merger in the area of supply of TV and radio signal, broadband internet access and telephony services, the Office, **in support of its arguments, drew on the conclusions of the study "**Economic Impact of Copyright for Cable Operators in Europe", presented by the European Cable Communications Associations (ECCA). The study was prepared as a recommendation for the European Commission in the area of harmonization of copyright applicable to the programme content distributed by cable operators to end users. It presented, *inter alia*, the projected development of shares of individual platforms for the supply of TV signal on the European market in 2004-2009. The document in question was presented on the web pages of an association of cable operators, of which the UPC was a member; therefore, one of the merging undertakings was familiar with the conclusions and information contained in the document. The study *inter alia* supported the conclusions drawn by the Office with respect to the development of the competitive environment and the individual platforms for the supply of TV signal for cable users in the Czech Republic. For instance, it indicated that in countries with cable TV share under 40% (e.g., the Czech Republic, Slovakia, Austria), no significant change in the position of the undertaking resulting from the merger ought to occur due to the onset of new technologies (IPTV, DTT)[3] and their projected percentage growth as compared to CATV and DTH[4] transmission platforms. The study thus confirmed the conclusion drawn by the Office, i.e. that the current dominant position of UPC on the market for supply of paid TV signal to end users (CATV, DTH) would not be significantly jeopardized in the nearest future, and the merged undertaking would continue to maintain a significant distance from the other undertakings on the market, both current, and the aforesaid potential future undertakings. For that reason, the Office conditioned the merger approval *inter alia* on the satisfaction of obligations imposed for the duration of a transitory period during which the position of providers of competing platforms based on new technologies ought to be strengthened, together with the competitive environment on the relevant market.

In the case of the proceeding in the matter of producers of non-alcoholic beverages, *Karlovarské minerální vody/Poděbradka,*[5] the results of a **quantity survey of consumers preferences,** "Purchasing Patterns and Preferences in the Area of Flavored Soft Drinks", prepared by an independent marketing agency, was used in the definition of the relevant market. The conclusions of the study indicated, for instance, that most consumers (2/3) do not distinguish between flavored mineral water and table water, flavored soda and brand beverages, which indicated that flavored soft drinks could be a part of one and the same market. In the definition of the relevant market, the Office included all flavored soft drinks in one market, i.e. for the purposes of the proceeding, it defined the relevant market as the market for water-based bottled flavored soft drinks. Although the aforesaid survey was presented to the Office by the party to the proceeding, and the Office was aware of a potentially one-sided perspective of the survey due to the selection of respondents, locations or questions, it eventually did identify with the conclusions drawn in the survey as most producers of non-alcoholic beverages and their customers, approached by the office, tended to hold the same view.

It should further be added in this context that at the time of initial assessment of the merger of mineral water producers, *Karlovarské minerální vody/Poděbradka/ Hanácká kyselka*[6], not approved by the Office in 2002 (a different provision of law for merger control, and a different situation on the market prior to Czech Republic's accession to the EU), the Office commissioned and used an **expert opinion to assess the**

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2 See decision of the Office No. S 271/06 – UPC/Karneval Media/Forcable

3 IPTV – Internet Protocol Television, DTT – digital terrestrial television

4 CATV – Cabel Televison - supply of TV signal through cable network, DTH – a form of digital satellite paid broadcasting.

5 See decision of the Office No. S 64/05 – KMV/Poděbradka

6 See decision of the Office No. S 31/01 – KMV/Poděbradka/Hanácká kyselka

substitutability of mineral water and table water. The Office was further provided with an expert opinion by the party to the proceeding, which expert opinion was in favor of approval of the merger because of the development and strengthening of the manufacturing and financial position of the group prior to Czech Republic's accession to the European Union. However, the opinion did not address the issue of impact on the final consumers of soft drinks at all, and it turned out that the understanding of the purpose and method of definition of relevant markets in the process of merger control on the part of individual experts does not necessarily have to be the same as that of the competition authorities.

Mergers where the Office examined consumer preferences to define the product market by its own means included the *Bohemia Sekt/Víno Mikulov*[7] merger. In this particular case, the Office examined the substitutability of different types of wine, in particular semi-sparkling (frizzante) and sparkling wines, and used an **opinion poll** to gain support for its conclusions. The poll showed that the end consumer does distinguish between sparkling and semi-sparkling wines, and 78 % of respondents indicated that they did not consider sparkling wine interchangeable with any other type of beverages and 61 % would not be deterred from purchasing even by a long-term 5 % price increase. Having considered functional aspects (production method, and grape quality requirements), as well as consumer responses in the poll, the Office concluded that semi-sparkling (frizzante) and sparkling wines were no substitutes.

One of the cases where the Office used a broad range of approaches to obtain information was the *Bongrain/Povltavské mlékárny*[8] merger in the area of dairy products, as well as camembert-type cheese with mould on the surface. In this proceeding, the Office had to resolve whether to define the product market more broadly, as the market for all types of cheese (hard cheese, processed cheese, blue and Camembert-type cheese), i.e. as proposed by the party to the proceeding, or more narrowly, as the market for cheese of certain type, i.e., blue and Camembert-type cheese, or even just cheese with mould on the surface. The Office used several external information tools: **an opinion poll addressed to consumers, and questionnaires** sent to sellers, and a consumer survey of price elasticity submitted by the party to the proceeding; further, the Office commissioned four opinions from specialized schools and two from government agencies (Ministry of Agriculture and the Czech Agricultural and Food Inspection), and one expert opinion. What appeared to be important with a view to the ultimate definition of the relevant market was the finding made in the opinion poll conducted by the Office among consumers. It turned out that from the consumer's perspective, Camembert-type cheese is not generally substitutable by other cheese, or even Roquefort-type cheese (with mould inside). This opinion was further confirmed by five out of the six opinions rendered by specialized schools and government agencies. The court expert drew the same conclusion.

In this particular case, the Office further had to deal with a piece of evidence submitted by the party to the proceeding, i.e. **a consumer survey of price elasticity,** which, in the opinion of the party to the proceeding, showed a high degree of product elasticity (cheese with mould on the surface), and thus its substitutability by other cheese. However, having analyzed the survey, the Office decided to disregard this piece of evidence because it found the questions posed to respondents in the study inappropriate and tailored to the purposes of the party to the proceeding. For instance, the consumers were asked if they would continue to buy Hermelín (cheese with mould on the surface) if its price went up by 50 %, or 100 %, and only 10 %, or 2 % respectively, responded that they would buy Hermelín with identical frequency. The Office noted in its decision that for a price test to have information value, it has to be based on a small but significant price increase of 5-10 %; if higher values are applied (in the survey conducted by the party to the proceeding 50 %, or 100 %), other factors are reflected in the elasticity tests.

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7 See decision of the Office No. S 116/98 – Bohemia Sekt/Víno Mikulov

8 See decision of the Office No. S 107/96 – Bongrain/Povltavské mlékárny

The Office had to address a similar issue in the case of a cartel agreement between building savings banks [9]. While this was not a merger, the Office had to reconcile **completely contradictory conclusions presented in two external expert opinions,** and we consider the case so extraordinary that we would like to comment on it briefly. In the proceeding, the Office considered an opinion rendered by an expert who stated that data shared under an information exchange agreement may be of such nature that they may influence the competitive behavior of the undertakings concerned. Contrary to that, an analysis submitted by one of the parties and carried out by the staff members of the Economics Institute of the Czech Academy of Sciences and the University of Economics in Prague claimed that the information being exchanged was of historical and public nature; the information concerned past market shares, and the knowledge of such cannot be used to infer what the fee policies of the competitors would be like in the future. In its final decision, the Office concluded that the building savings banks exchanged, through the Association of Building Savings Banks, statistical overviews on a monthly basis, and that information exchanged repeatedly, for an extended period of time and on a monthly basis cannot be considered historical; on the contrary, this is highly topical data, impossible to obtain from other sources.

A study that was not prepared "*ad hoc",* to assess a specific merger, was used by the Office to draw information in connection with the merger between *ČEZ* and *regional electricity distributors*[10] in the area of production, distribution of and trading in electricity. The study, "Analysis of the Energy Complex of the Czech Republic", was prepared by a company which acts as an advisor and consultant on the energy sector, and it focused in particular on the assessment of the situation on the electricity market, the economic and financial power of main energy companies, and in particular the market position of ČEZ (the largest electricity producer in the Czech Republic) and its vertical ties to the individual regional distributors of electricity. The objective of the study was in particular to summarize analytical data concerning this sector, processed by the agency over a certain period of time and offered to interested parties. This is **an example of utilization of "off-the-shelf market studies" in the practice of the Office**.

A case where the Office processed perhaps the greatest amount of data when trying to define the relevant market and determine the positions of the individual undertakings was the *Bayer AG/Aventis CropScience*[11] merger. It involved a merger in the area of production of plant protection and growth enhancement chemicals (pesticides), which covers a great variety of product groups aimed at protecting crops from all forms of damage that may be caused by weeds, insects or diseases, as well as products enhancing or regulating plant growth (approximately 600 types of substances for plant protection). The investigation showed that the individual groups are not substitutable in terms of purpose, and form a great number of specific product markets; this means that a separate market has to be defined for a specific plant or crop, as well as the specific type of potential damage. Faced with this situation, the Office turned to a state institution, the State Phytosanitary Administration ("SPA"), which keeps records of the use of plant protection products in the territory of the Czech Republic. SPA provided the Office with publications containing an extensive database of data for the period under review, indicating the consumption of individual types of pesticides and the crops so treated. The information was processed by the Office which was thus able to determine the positions of the merged entity and its competitors on the individual relevant markets, as well as ownership of effective substances constituting the principal effective substance of the chemicals, and to obtain an independent basis for its decision in the matter. This is an example of **successful cooperation between the Office and a specialized state institution** (SPA).

In conclusion, the experience of the Office as concerns external sources of information, in particular surveys, studies and expert opinions, can be summarized as follows. In the process of investigation, the

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9 See decision of the Office No. S 67/04 concerning building savings banks

10 See decision of the Office No. S 142/02 – ČEZ/REAS

11 See decision of the Office No. S 119/01 – Bayer AG/Aventis CropScience

Office uses in some cases as a supportive evidence for the definition of the market an **opinion poll** instead of a marketing survey, as the opinion poll requires less time and cost. Where consumer preferences are examined by means of market or marketing surveys, it is usually more appropriate to commission such survey to a specialized agency which has more experience with the conduct of such survey than the Office, e.g. the selection of a representative sample of respondents, retaining staff to conduct the survey, and compliance with time requirements (with a view to compliance with administrative deadlines) for the processing of the survey. However, the objective of the survey needs to be defined in clear and specific terms, and, if possible, to consult the wording of key questions with the selected agency. Information provided by parties to the proceeding may also be used, in particular if the studies were prepared in the past, for instance, for the purpose of strategic or operating decisions of the undertaking, rather than for the purposes of the notified merger. Caution is a must in case of studies commissioned by the parties shortly before the initiation of the proceeding or during the proceeding, as they **may be self-serving** (e.g. the aforesaid survey in the administrative proceeding in *Bongrain/Povltavské mlékárny*[12]).

When the Office wishes to avail itself of external sources, in some cases of merger control investigations, the Office finds it **difficult to find a suitable independent entity to render the study or opinion**. This is true in particular in cases of certain specific product markets (e.g. narrowly specialized) or highly concentrated markets where most of the qualified entities provide services to the merging undertakings, and it is thus difficult to ensure their objectivity and independence. The small size of the Czech Republic is a disadvantage in this regard, as opposed to "large" economies where it is easy to find an independent expert or a specialized advisor, who can commission the study without concern for potential business or proprietary ties with the merging undertakings.

Further experience of the Office includes commissioning of opinions or surveys from educational institutions (institutions of higher learning, universities) which, however, generally tend to place an emphasis on the theoretical aspects of the case, and thus usually do not suit the requirements of the Office in terms of information contained therein.

3. Applicability of analytical tools in the practice of the Office

The principal question addressed by the Office in its merger control practice is whether the merger is capable of distorting competition, and thus ultimately harming customers or consumers of the merging undertakings.

In its decision-making practice, the Office can use a **broad spectrum of analytical tools and methods,** from more simple ones, such as assessment of market shares, to the compilation of complex analytical econometric models. These include for instance analytical method applied in the market definition through assessment of structure, degree of concentration and market development, methods applied in the definition of relevant product and geographic markets through demand elasticity, analysis of actual and critical losses, analysis of price correlation and variation, or natural experiment methods. Further, various corroborative tests can be used to assess the potential for the occurrence of unilateral effects as a result of the merger (for instance, by analyzing production capacities or potential for entry of new products), and also tests for the occurrence of coordinated actions of undertakings on the market in connection with the implementation of the merger. However, it needs to be pointed out that the Office in practice currently uses more comprehensive methods fairly rarely because it is not able to obtain sufficiently comprehensive and detailed information on individual undertakings on the relevant markets within the statutory deadlines. This unfortunate situation could possibly be resolved by **provision of access to individual statistical data** maintained by the Statistical Office or other state institutions dealing with industry statistics.

[12] See decision of the Office No. S 107/96 – Bongrain/Povltavské mlékárny

Methods for the measuring of market shares are the basic point of analysis in the assessment by the Office of impact of the merger on competition. However, information on market shares of the undertakings and the degree of market concentration by itself does not show whether the merger of the undertakings will or will not result in any distortion of competition. The determination of market shares can be based on both units sold and turnover. Where the products are homogenous, the number of units sold is more appropriate, where the products are differentiated, it is better to use turnover. In its analysis, the Office takes further factors into account – e.g. the importance of and options for import, the utilization of production capacities by individual undertakings, and the number of undertakings active on the market in question.

The Office further uses **market concentration indicators** which are designed as the aggregate share of three to five most important undertakings on the overall market, and are referred to as CR3, CR4, CR5. Analysis based on the Herfindahl-Hirschman index (HHI) is also used as it duly enhances the strength of a company with a high market share, and reduces the power of a company with a low market share.

The advantage of the aforesaid analytical methods lies in the fact that most of the information required can be obtained from the merger approval questionnaire which forms a part of the application for merger approval, or from statistical data maintained by associations of undertakings or from public sources. These are basic market analyses which are used by the Office and which can be used to determine quickly whether the merger under assessment could have an anti-competitive impact.

The Office applies the aforesaid methods in cases where a significant increase in the market share results from the merger ; e.g. in the aforesaid decision in *Bayer/Aventis CropScience*[13], where the Office noted that the merger would result in a great increase of HHI on the market for sugar-beet herbicides and rape fungicides, and thus gave rise to concerns over concentration. Specifically, the HHI increased by 402 points in the case of the sugar-beet herbicides market (the pre-merger HHI was 2342 points), and by 404 on the rape fungicides market (the pre-merger HHI was 3378 points). This was one of the reasons why the Office approved the merger only after stipulating of remedies in favour of maintaining of effective competition on the markets in question.

Another method used to define the relevant product and geographic markets and capable of providing the Office with a more comprehensive idea of the impact of the merger than certain partial analyses provide, such as price correlation (i.e. a simple comparison of the development of prices of products – potential substitutes), is the demand curve, as well as the cross elasticity method, or the SSNIP test ("small, but significant non-transitory increase in price").

However, these require a great amount of data to be supplied by both the merging undertakings and other economic entities (information on prices and quantities of product A sold, as well as information on prices and sales of other products – potential substitutes for A). As such data is very difficult to obtain, it is recommendable that the Office use such methods in particular in cases giving rise to serious concerns over distortion of competition, where longer deadlines may be applied to the decision. Where shorter deadlines apply, such tests may be conducted using estimates; however, that does not guarantee that the final conclusions would be correct, e.g. as to the substitutability of the product being examined. As noted above, given the difficulties in obtaining data for price analyses, the Office uses opinion polls for corroboration in the examination of price elasticity (e.g., *Bongrain/Povltavské mlékárny*[14], *Bohemia Sekt/Víno Mikulov*[15] mergers).

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13 See decision of the Office No. S 119/01 – Bayer AG/Aventis CropScience

14 See decision of the Office No. S 107/96 – Bongrain/Povltavské mlékárny

15 See decision of the Office No. S 116/98 – Bohemia Sekt/Víno Mikulov

Other tests that can be used to assess potential adverse impact on competition include for instance the **unilateral effects tests,** such as measuring of production capacities, test of entry of potential products onto the market, or relocation of current capacities. The **tests of coordinated effects** comprise of a group of various tests used to analyze the likelihood of occurrence of coordinated behavior of undertakings on the market as a result of the merger. To be able to conduct such tests, information on the selling/purchasing patterns of manufacturers and customers in the sale/purchase of the products concerned needs to be obtained. This may involve for instance the assessment of price policy applied vis-à-vis customers, analysis of turnovers of the undertakings, sources of contracts (e.g. public procurement), or cost analysis.

The aforesaid methods can be used to glean a better understanding of the behavior of the market and the quality of the competitive environment, for instance, by determining the purchasing power of customers or end customers of the merging undertakings, by finding out how undertakings on the market set their business terms and conditions, analyzing tenders with a view to prices and bids, and by analyzing the stability of market shares and analyzing costs. These methods are not strictly limited to merger control but may also be used to **detect cartel agreements** or **concerted practices** of undertakings on the market in question.

FRANCE

La table ronde a notamment pour objet d'examiner (i) comment les autorités de concurrence traitent des cas dits complexes en terme d'analyse de données, d'enquêtes ou d'études de marché ; (ii) comment mettre en oeuvre leur expertise pour mener au mieux leur mission.

Il est proposé d'examiner en particulier l'expérience des autorités françaises en terme d'interactions entre les économistes des parties et/ou de tiers et les autorités pour deux cas traités en 2006 : la création d'une entreprise commune par la Caisse Nationale des Caisses d'Epargne et la Banque Fédérale des Banques Populaires[1] et la concentration entre Marine Harvest N.V et Pan Fish ASA[2].

1. Introduction

L'utilisation de méthodes d'analyses économiques empiriques s'est accrue ces dernières années proportionnellement à la complexité des cas en matière de concentration. Les raisons sont multiples, en particulier une utilisation croissante d'économistes quantitatifs par les autorités de concurrence ; l'accès à de « meilleures » sources de données ; le développement de logiciels plus « conviviaux ».

En 2006, les autorités de concurrence françaises ont examiné 128 concentrations, 3 cas ont été référées au Conseil de la Concurrence pour avis et 6 ont été autorisées sous engagements. En matière d'analyse empirique deux cas ont fait notamment l'objet de nombreuses interactions entre les économistes des parties et les autorités françaises : la création d'une entreprise commune par la Caisse Nationale des Caisses d'Epargne et la Banque Fédérale des Banques Populaires, la concentration entre Marine Harvest N.V et Pan Fish ASA.

2. Analyse de concentrations complexes

2.1 Avantages et sources d'erreurs possibles pour les méthodes d'analyses empiriques

Depuis quelques années, la complexité des cas notifiés aux autorités françaises s'est accrue, allant de pair avec une utilisation croissante des méthodes d'analyse empiriques. Les avantages des méthodes empiriques sont multiples. Ce sont d'abord des méthodes d'analyse complémentaires aux analyses traditionnelles, notamment pour déterminer les marchés pertinents, les effets unilatéraux, les possibles gains en terme d'efficacité économique ou encore l'impact de remèdes éventuels. Les méthodologies empiriques sont néanmoins souvent contestées. Les critiques proviennent de plusieurs sources au cœur même du processus d'estimation : collecte des données, estimation d'une forme structurelle pour la fonction de demande[3], hypothèses sur l'environnement concurrentiel (Bertrand, Cournot, etc). Elles nécessitent alors une analyse plus sophistiquée de la part des autorités de concurrence affectant ainsi le management de ces cas.

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1 Reference C2006-45.

2 Reference C2006-47.

3 Le choix de la forme structurelle de l'équation de la demande est significative. Il a notamment des implications en terme d'accroissement des prix ex-post.

2.2 Conséquence en terme de management

Cette utilisation croissante des méthodes d'analyse empiriques a ainsi appelé ces dernières années le recrutement d'économistes quantitatifs[4]. Néanmoins, dans certains cas, ces ressources tant humaines que financières apparaissent insuffisantes pour examiner plusieurs cas complexes simultanément. Un autre problème est lié à la durée réelle de l'instruction. En particulier, pour les cas n'appelant pas de deuxième phase d'instruction, il existe très peu de temps en matière de collecte des données et de traitements de ces dernières. Dans ces différents cadres de configuration, une manière d'implémenter l'analyse économique pour les autorités nationales est d'externaliser la modélisation empirique auprès des parties et/ou de tiers, et d'exercer ensuite un « check and balance » lors de l'instruction. Les deux cas présentés par les autorités françaises illustrent ce choix.

3. Management de cas de concentrations complexes : deux exemples significatifs

3.1 Création d'une entreprise commune par la Caisse Nationale des Caisses d'Epargne et la Banque Fédérale des Banques Populaires

Le Ministre de l'Economie, des Finances et de l'Emploi a autorisé, le 10 août 2006, la création, par le Groupe Banque Populaire et le Groupe Caisse d'Épargne, d'une filiale commune, dénommée NatIxis. Cette entreprise autonome et de plein exercice a vocation à regrouper la majeure partie des activités de ses sociétés mères en matière de banque commerciale et de banque d'investissement et de financement. Elle est également, mais marginalement, active sur les secteurs de l'assurance et de la banque de détail pour les particuliers (banque privée et conservation de titres). La plupart des services bancaires de détail, qui représentent l'essentiel de l'activité des Banques Populaires et des Caisses d'Épargne, ne sont ainsi pas directement concernés par l'opération de concentration ; ils ont pourtant fait l'objet d'une attention toute particulière.

La complexité du cas concernait l'analyse concurrentielle dans le cadre de la création d'une entreprise commune. Au stade de l'instruction, il fallait non seulement mesurer les effets anticoncurrentiels d'une éventuelle coordination des sociétés mères, mais aussi vérifier qu'il était possible d'en écarter le risque. Les autorités ont pu rendre leur décision à travers des expertises tant internes qu'externes, implémentant ainsi leur analyse économique sur une période d'instruction courte.

3.1.1 Évaluation économique des effets d'une coordination des sociétés mères

Dans cette affaire, la mesure de l'impact anticoncurrentiel d'une possible coordination des groupes au niveau de la banque de détail a fait l'objet d'une véritable interaction avec les parties. Ces dernières ont soumis aux services du Ministre une étude économétrique réalisée à leur demande par un représentant du monde académique[5]. Les travaux présentés s'articulaient autour de trois axes.

En premier lieu, une étude descriptive de la stratégie de localisation des agences fondée sur un modèle simple tiré de la théorie économique permettait d'appréhender l'effet pour la future entité de la fermeture d'une agence.

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4 La DGCCRF et le Conseil de la concurrence ont recruté un chef économiste en 2006/2007 (Pour la DGCCRF et le Ministère de l'Economie et des Finances : Valérie Rabassa, co-auteure de cette contribution avec Mme Jennifer Siroteau du bureau des concentrations de la DGCCRF ; pour le Conseil de la concurrence : Philippe Choné).

5 Professeur Marc Ivaldi, IDEI, Université de Toulouse.

En second lieu, un modèle explicatif du choix de la taille d'un réseau au niveau départemental permettait d'estimer le degré de concurrence locale comme résultant d'une maximisation de la collecte sous contrainte du coût induit par l'ouverture d'une agence supplémentaire[6].

Enfin, l'estimation d'un modèle de détermination du taux de marge réalisé au niveau national sur les crédits permettait de mesurer l'élasticité de la demande et de chiffrer l'impact d'une coordination des groupes Caisse d'Epargne et Banque Populaire, non seulement dans l'hypothèse de produits bancaires parfaitement substituables mais encore dans celle de produits différenciés (impliquant un risque d'effets unilatéraux)[7].

Les services du Ministre, qui s'étaient récemment étoffés en termes de ressources humaines aptes à l'analyse économique, ont su apprécier la qualité des travaux présentés.

3.1.2 Appréciation du risque de coordination des sociétés mères

L'un des critères nécessaires à l'établissement d'un risque de coordination des sociétés mères est l'existence d'un lien causal entre l'opération et le comportement concurrentiel des sociétés mères. Dès lors, l'analyse concurrentielle passait par une compréhension fine de l'interaction entre les différents métiers bancaires afin de vérifier que ce lien causal n'était pas vérifié. Concrètement, les autorités françaises ont bénéficié de l'expertise (i) des services du Ministre à travers la DGCCRF et ses bureaux sectoriels qui assurent le suivi des problématiques de consommation et de répression des fraudes dans chacun des secteurs économiques et de (ii) la Banque de France, et plus particulièrement des services de la Commission bancaire, pour obtenir une validation de leur compréhension des liens entre les métiers exercés par les banques de détail (qui demeuraient, au cas d'espèce, l'activité des sociétés mères) et les métiers exercés par les banques de financement et d'investissement (que l'opération permettait de regrouper au sein d'une entreprise commune).

Ce cas, dont l'instruction s'est conclue par une autorisation sans engagements, s'il souligne la difficulté qu'éprouvent encore les services du Ministre – notamment en termes de calendrier[8] – à traiter directement des données quantitatives, illustre également le pragmatisme des autorités de concurrence pour le traitement des cas complexes. Ainsi, n'étant pas en mesure de produire leurs propres modèles dans les délais impartis par le Code de commerce, les autorités ont conforté leur analyse à travers l'expertise économétrique de l'économiste des parties. Par ailleurs, les autorités ont été confrontées à la nécessité de mettre en application pour la première fois un point de la doctrine relatif au risque de coordination des sociétés mères lors de la création d'une entreprise commune[9].

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6 Définir les conditions d'accès au réseau constitue ainsi un levier de moyen ou long terme des groupes bancaires dans leurs stratégies concurrentielles.

7 Définir la grille tarifaire constitue un levier de court terme des groupes bancaires dans leurs stratégies concurrentielles.

8 En droit français, la première phase d'instruction par les services de la DGCCRF dure cinq semaines. Ce délai n'est généralement pas compatible avec le recueil des données quantitatives nécessaires à la réalisation d'une étude économétrique.

9 Dans une décision ultérieure, C2007-027 L'Est Républicain/BFCM, le Ministre a été amené à préciser les contours du test national en matière de risque de coordination des comportements concurrentiels.

3.2 Concentration entre Marine Harvest N.V et Pan Fish ASA

Le Ministre de l'Economie, des Finances et de l'Emploi a autorisé, le 1er décembre 2006, le contrôle exclusif par la société Pan Fish ASA de la société Fjord Seafood ASA[10]. Pan Fish est une société de droit norvégien active dans le secteur de l'aquaculture en tant que producteur de saumon d'élevage et de produits à valeur ajoutée tels que le saumon fumé et les préparations à base de produits de la mer. Elle est présente dans les grandes zones de production mondiales de saumon : Norvège, Ecosse, Îles Féroé et Amérique du Nord. Marine Harvest est une entreprise de droit néerlandais active dans le secteur de l'aquaculture, principalement en tant que producteur de saumon. Ses activités de production de saumon sont localisées dans cinq pays : le Canada, le Chili, l'Irlande, la Norvège et l'Écosse.

Dans ce cas, la complexité de l'analyse concernait la définition des marchés pertinents à travers l'origine géographique du saumon d'une part, et l'analyse concurrentielle à travers la quantification des effets unilatéraux d'autre part.

3.2.1 Marchés pertinents

L'analyse du cas nécessitait un examen approfondi de la segmentation du marché en fonction de l'origine géographique du saumon. Selon les parties, les trois origines géographiques (Norvège, Ecosse et Irlande) du saumon Atlantique frais d'élevage appartenaient à un même marché. Elles s'appuyaient sur une étude économétrique[11] via trois tests statistiques différents : (i) un test de corrélation[12] ; (ii) un test de stationnarité et ; (iii) un test de co-intégration[13]. Ces différents tests sont basés sur l'idée que si deux produits sont dans le même marché alors leurs prix respectifs exercent des contraintes l'un vis à vis de l'autre et doivent donc évoluer de façon parallèle sur le long terme.

En l'espèce, le test de corrélation fut effectué sur des données de prix relatives au saumon d'Écosse et au saumon de Norvège, sur la base des prix de vente de Marine Harvest au Royaume-Uni (test 1) et en France (test 2), de janvier 2003 à janvier 2006, et sur la base des prix cotés à Rungis (test 3) de 2000 à

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10 Dans ce cas, la DGCCRF a saisi le Conseil de la Concurrence pour avis. L'opération fut également notifiée en Norvège, aux Etats-Unis, au Royaume-Uni et en Espagne.

11 Cette étude se basait sur une méthodologie analogue à celle proposée aux autorités de la concurrence britannique, la Competition Commission, lors de l'examen de l'opération Nutreco/Hydro Seafood en 2000.

12 Le test de corrélation est un outil statistique destiné à évaluer les frontières du marché pertinent. Soient deux séries de prix représentatives d'un produit A et d'un produit B, le coefficient de corrélation est :

$$\sigma = \frac{\sum_t \left(p_t^A - \bar{p}^A\right)\left(p_t^B - \bar{p}^B\right)}{\sqrt{\sum_t \left(p_t^A - \bar{p}^A\right)^2 \sum_t \left(p_t^B - \bar{p}^B\right)^2}}$$

Il est compris entre -1 et 1. Plus il est proche de 0, plus les prix des deux produits sont indépendants. Plus il est proche de –1, plus les deux produits peuvent être considérés comme substituables. Néanmoins, pour éviter un risque de corrélation 'fallacieuse' (« spurious correlation »), il doit être vérifié qu'un coefficient de corrélation élevé ne correspond pas à une influence commune (soit un coût commun ou une tendance commune).

13 Les tests de stationnarité et de co-intégration sont des outils économétriques qui étudient l'évolution du prix relatif d'un bien par rapport à un autre et évaluent dans quelle mesure l'écart entre le prix des deux biens reste stable sur le long terme. Plus précisément, le test de stationnarité est fondé sur l'hypothèse qu'un choc modifiant le prix relatif entre deux biens appartenant au même marché ne peut avoir que des effets transitoires. Deux séries de prix sont dites co-intégrées s'il existe une relation stable de long terme, soit s'il existe une combinaison linéaire de ces deux séries. Ces tests sont plus robustes que le test de corrélation car ils ne sont pas affectés par des influences communes.

2006. Les tests 1 et 2 donnaient un coefficient de corrélation de 0,89 et le test 3 un coefficient de corrélation de 0,91. Les services du Ministre ont relevé que ces coefficients de corrélation élevés pouvaient être fallacieux en raison d'un coût de production commun élevé[14].

Les tests de stationnarité et de co-intégration reposent sur l'hypothèse essentielle que les prix de deux biens appartenant au même marché connaissent nécessairement une relation de long terme stable. Or, comme relevé par les services du Ministre, il est apparu néanmoins que ces tests n'avaient pas été réalisés sur des séries stationnaires. En tout état de cause, en admettant que cette hypothèse ait été vérifiée, ces tests auraient dû être complétés par une étude du lien entre les prix relatifs et les quantités relatives.

En conclusion, bien que ces tests soient venus à l'appui d'autres éléments au dossier militant en faveur de l'appartenance des différentes origines de saumon d'élevage à un même marché[15], les services du Ministre n'ont pu les inclure dans la décision finale en raison de leur faible robustesse.

3.2.2 Effets unilatéraux

Les services du Ministre estimaient que les parties pourraient, dès 2009, baisser substantiellement les quantités offertes de saumon d'Atlantique frais d'Ecosse et d'Irlande, conduisant ainsi à une hausse des prix relatifs de ces deux produits par rapport au saumon Atlantique frais de Norvège.

Sur le marché global du saumon Atlantique frais, le Conseil de la concurrence quantifia les effets unilatéraux[16] et finalement conclu à la faible probabilité qu'une stratégie de baisse des quantités globales de saumon Atlantique frais par Pan Fish aurait un effet sensible sur le fonctionnement concurrentiel du marché. Néanmoins, sur le marché du saumon Atlantique frais d'Ecosse, les services du Ministre demandèrent aux parties de soumettre différentes simulations économétriques. Les parties proposèrent des capacités supplémentaires plafonnées à 6 500 tonnes en Ecosse. Les services du Ministre considérèrent ces derniers insuffisantes et proposèrent, sur la base d'une élasticité-prix de –3, une réduction de 10 000 tonnes de production de saumon d'Ecosse, jugée plus crédible, ces hypothèses conduisant à une augmentation de prix du saumon d'Ecosse de 2,4%.

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14 Le coût de la nourriture pour poisson représente 43% des coûts.

15 Pour conclure à un marché pertinent incluant les trois origines géographiques, les critères suivant ont été pris en compte, comme l'ont fait valoir le Conseil de la concurrence ainsi que la Competition Commission. En particulier, il ressortait du test de marché qu'une large partie des acheteurs de saumon Atlantique d'élevage s'approvisionnent de façon indifférenciée en diverses origines, le critère étant, selon le cas, soit le prix, soit le prix sous contrainte de fraîcheur, soit le meilleur rapport qualité/fraîcheur/prix. Ainsi le Conseil de la concurrence précisait qu'« il n'existe pas d'éléments au dossier permettant de supposer que des discriminations tarifaires significatives puissent être effectuées entre les différentes catégories d'acheteurs. Les offreurs ne sont pas spécialisés selon un certain type d'acheteurs. L'équilibre offre / demande est global et toutes les catégories d'acheteurs sont en concurrence pour s'approvisionner au meilleur prix ». La plupart des réponses au test du monopoleur hypothétique confirmaient également la substituabilité des différentes origines de saumon Atlantique d'élevage, excluant ainsi toute sous segmentation possible du marché, malgré des éléments de différentiation verticale (par la qualité) et horizontales (par la variété) existant entre le saumon de Norvège, d'Ecosse et d'Irlande.

16 D'après le Conseil de la concurrence, l'opération de concentration aurait pour effet une «progression du taux de marge des acteurs du marché de 2,7% (avec une élasticité de –2) à 5,4% (avec une élasticité de –1). Le prix d'équilibre devrait donc augmenter au maximum de 2,8% (avec une élasticité de -2) à 5,9% (avec une élasticité de –1) et les quantités baisser au maximum d'environ 5,8% (avec une élasticité de –2)». Cette estimation, qui prend en compte les réactions des concurrents actuels des parties, constitue d'après le Conseil de la concurrence un majorant des effets étudiés. Sur la base d'hypothèses ajustées, les parties parviennent ainsi à une augmentation maximale du prix de l'ordre de 1,2%.

A l'issue de l'opération, Pan Fish deviendrait le premier fournisseur de saumon de Norvège dans l'espace économique européen, avec une part de marché de [30-40]%. Par ailleurs, étant donné l'existence de coûts marginaux relativement élevés en Ecosse, une réduction des quantités sur ce segment n'entraînerait, pour les parties que des pertes limitées qui pourraient être compensées par les recettes supplémentaires occasionnées par le report de la demande en Norvège.

IRELAND

1. Introduction

The purpose of this contribution to the OECD's Roundtable on Managing Complex Merger Cases is to set out the Irish Competition Authority's ("the Authority") experience with quantitative techniques and sourcing expertise in complex mergers. The submission is divided into five sections.

- Section 2 divides mergers notified to the Authority into complex and non-complex.

- In section 3 the application of quantitative techniques in the set of complex mergers identified in section 2 is addressed. Two inter related aspects are considered: first, what quantitative techniques have been used by the Authority; and, second, for what purpose. The quantitative techniques include statistical, econometric and other advanced quantitative techniques. The purpose for which the techniques can be used include: market definition; assessing if the firm has market power; assessing the competitive effects of the merger; and assessing and quantifying likely efficiencies that flow from the merger.

- In section 4 the issue of how the Authority sources the expertise required to conduct the quantitative techniques is addressed. The Mergers Division within the Authority is small, currently consisting of four economists, one full time and one half time lawyer.[1] Thus almost out of necessity the issue of using outside expertise to augment and assist the Authority in complex merger cases arises.

- Conclusions are presented in section 5.

2. Selecting the Set of Complex Mergers: 2003 -2007[2]

The Authority was given responsibility for merger control from 1 January 2003 under the Competition Act 2002 ("the Act"). In the period to 1 September 2007, 360 merger notifications were

1 One lawyer is shared with another division within the Authority. It should be noted that when the volume and complexity of mergers notified to the Authority cannot be handled by the resources of the Mergers Division, then additional resources may be drawn on from other divisions within the Authority.

2 This section draws on and updates Gorecki, P., C. Keating & B. O'Connor (2007) "The Role of Economic Evidence in Merger Control in Ireland: Current and Future Practice." Paper prepared for the Conference Merger control in Ireland: prospect and Retrospect, Croke Park Conference Centre, Dublin, 11 April. This maybe accessed at: www.tca.ie

received under the Act by the Authority.[3] The vast majority of these do not require extensive analysis. They are not complex. Thus the focus of the discussion is on identifying the small subset of mergers – less than 10% - that are considered complex.

The Authority's Merger Guidelines set thresholds that act for the Authority "as a screen for deciding whether to intensify its analysis of effects on competition." (Competition Authority, 2002, para 3.9).[4] As can be seen from Table 1 these thresholds depend on the level of concentration in a relevant market, as given by the Herfindahl-Hirshmann Index ("HHI"), and the change in the value of the HHI index due to the merger, referred to as the 'Delta'.

Table 1. Thresholds for Merger Screening, HHI Index & Delta,[5] Ireland

Zone	Herfindahl-Hirshmann Index	Delta
A	Less than 1000	Any
	Between 1000 & 1800	Less than 100
	Above 1800	Less than 50
B	Between 1000 & 1800	Greater than 100
	Above 1800	Between 50 & 100
C	Above 1800	Greater than 100

Source: Competition Authority (2002) Notice in Respect of Guidelines for Merger Analysis. Decision No. N/02/004. Dublin: the Authority, p.11. (Merger Guidelines). This maybe accessed at: www.tca.ie.

For the purposes of this paper mergers are divided into two categories:

- those which raise no significant lessening of competition concerns ("SLC") and thus are not considered complex; and,

- those which, potentially at least, raise such SLC concerns. It is the latter group that will contain the complex mergers (i.e., those in which it is difficult to determine whether or not there is SLC because of market definition issues, problems in evaluating the effectiveness of competitive constraints on the merged entity, the nature of competition in the market and so on).

The competition test in the Act is whether or not the merger leads to significant lessening of competition.

3 Mergers under the Act have to be notified on a mandatory basis to the Authority once certain thresholds are reached. These thresholds have not changed since 1 January 2003. Mergers below the threshold may be notified to the Authority on a voluntary basis. In addition the Authority may investigate mergers under the threshold using section 4 of the Act which relates to restrictive agreements. The vast majority of mergers are notified on a mandatory basis. The total of 360 in the text refers to all notified mergers and one merger that the Authority investigated under section 4. The mergers are dated by when they are notified to the Authority. Full details of all notified mergers may be found either in the Authority's *Annual Report* or on the Authority's website, www.tca.ie.

4 These thresholds are used by the Authority for screening out mergers that are unlikely to raise competition concerns, but in contrast the same thresholds are used by legal advisors to screen in potentially problematic non-notifiable mergers.

5 The HHI and Delta are defined and discussed in Competition Authority, *Merger Guidelines* (Annex A, p. 33).

2.1 No SLC Concerns: Non-Complex Mergers

Using the thresholds in Table 1 we distinguish two sub-categories of mergers where SLC concerns are unlikely to be raised:

- *Zone A: No overlap.* A special case of Zone A is where the Delta is zero because there is no horizontal overlap in the activities of the acquirer and the target, nor is there any vertical relationship. In other words, the acquirer and the target have no activities in common. This occurs with some frequency in mergers notified to the Authority. Mergers with no overlap do not pose SLC concerns[6] and hence can be typically cleared on the basis of a Phase 1 investigation.[7]

- *Zone A or B: Minimal Overlap.* In many cases the overlap in the activities of the acquirer and the target is minor and is unlikely to lead to concerns that the merged entity will result in SLC. Hence in these cases it is necessary to examine the degree of overlap and the degree of competition in the industry before clearing the merger, based on the approach outlined in the Authority's Merger Guidelines. As with Zone A mergers with no overlap, these mergers are decided on the basis of a Phase 1 investigation.

Mergers falling into either of these sub-categories are evaluated primarily on the basis of evidence provided in the notification. Although in some instances additional research is required, there is no need to conduct an extensive investigation that might require the use of quantitative techniques.

2.2 SLC Concerns: Complex Mergers

Using Table 1 we consider one category of mergers where SLC concerns are most likely to arise:

- *Zone B or C: Substantial Overlap.* Mergers which fall in Zone B or C and thus experience a substantial Delta are those where competition concerns that the merger might lead to SLC are most likely to occur. For example, in the proposed acquisition by IBM Ireland Ltd of Schlumberger Business Continuity Services (Ireland) Limited, which was blocked by the Authority, the HHI was 9037 and the Delta, 4400.[8] Mergers falling in Zone B or C with substantial overlap will necessitate extensive inquiries among competitors, customers, and suppliers, and the development of theories of consumer harm before a conclusion can be reached on whether or not the merger will lead to SLC. Furthermore these theories may be thoroughly tested using quantitative techniques. The extensive analysis that is required may be conducted either through an extended Phase 1[9] or Phase 2.

Thus mergers falling into Zone B or C with substantial overlap can be classified as complex.

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6 Of course in some cases there may be potential competition concerns if the acquirer were a potential entrant. However, this is typically not the case, especially for acquisitions by investment funds.

7 Under the merger provisions of the Act, mergers may be cleared at Phase 1 if there is no SLC. If, however, the Authority cannot conclude that the merger would not lead to SLC then a Phase 2 investigation is undertaken.

8 M/04/032, *IBM/Schlumberger*, Table A, p. 31. Estimates in text based on column headed "SBCS estimates."

9 A Phase 1 investigation may be extended if the Authority issues a Request for Information ("RFI") which has the effect of stopping the clock until the RFI is complied with at which point the Phase 1 clock is reset. Furthermore if the parties to a merger make proposals to the Authority to address competition concerns then this has the effect of extending Phase 1 from a period of one calendar month to a period of 45 days.

2.3 Selecting the Set of Complex Mergers

Table 2 presents the subset of mergers that raised SLC concerns from the 360 mergers that were notified to the Authority between 2003 and 2007 inclusively. Data is not readily available on the HHI and Delta for all 360 mergers and thus an alternative methodology was employed to identify those mergers which raised SLC issues. The set of complex mergers was defined as follows:

- all mergers cleared at Phase 1 on the basis of proposals;
- all mergers which went to Phase 2; and,
- mergers cleared at Phase 1, where there was considerable investigation undertaken to come to the conclusion that the merger did not raise SLC concerns. In several cases these would have been extended Phase 1 investigations.

The set of complex mergers, which are listed in Appendix A, was then subtracted from the total number of merger notifications to derive those mergers which were cleared on the basis of a Phase 1 assessment, because there were no competition concerns and where an extensive analysis was not required.

Table 2. Classification of Merger Notifications,[10] by Whether Raised Competition Concerns, Annually, Ireland, 2003 to 2007[11]

Year	No SLC Concern: Non-Complex Mergers	SLC Concern: Complex Merger	Total
2003-07	332 (92%)	28 (8%)	360 (100%)

Source: Competition Authority, Annual Report, various issues, & Annex A below.

Table 2 shows that over the period 2003 to 2007 of the 360 mergers notified to the Authority only 28 or 8% could be classified as complex. In absolute terms the number of complex mergers has varied annually over that period between 5 and 7.

3. Quantitative Techniques: Which & Why

The purpose of this section is to answer two related questions:

- what statistical, econometric and other advanced quantitative techniques have been used by the Authority to analyse complex merger cases?; and,
- for what analytical purpose in the merger analysis has the quantitative technique been used?

The 28 complex mergers were closely examined to address these two questions.

In 23 or 82% of complex mergers no quantitative techniques were employed by the Authority. This reflects at least three factors:

10 The total number of notified mergers is taken from the Authority's *Annual Report*. They are dated by when they were notified. In 2004 the number of mergers notified is increased by 1 compared to the number on the Authority's *Annual Report* to take into account that Middlebrook Mushrooms/Carbury Mushrooms merger was dealt with by way of an investigation under Section 4 of the Act, rather than the merger provisions.

11 For 2007 the table refers only to the period covering January to August.

- Decisions on whether or not there was a SLC was based on other kinds of evidence: qualitative data from questionnaires and surveys; internal documents of the merging parties; oral evidence given under oath to the Authority;[12] customer and competitor evidence (both oral and documentary); consumer surveys; information obtained from regulatory and other agencies; previous EU and Authority merger decisions; third party submissions; and so on. For example, in the IBM/Schlumberger merger the Authority blocked on the basis of the parties internal documents, customer views and the pattern of bidding.

- In many if not all of the 23 cases the data required to employ quantitative techniques was not available. Thus the issue of whether or not to use such techniques did not arise.

- The criteria for delimiting complex cases may have been somewhat over-inclusive. For example, two of the mergers that were cleared at Phase 1 with proposals involved relatively minor changes in certain ancillary restraints.[13] Apart from that the analysis of the merger could not be considered complex and extensive analysis was not undertaken.

Turning attention now to the 5 complex mergers where quantitative techniques were used Table 3 summarises the techniques used and for what purpose.

Table 3. Use of Quantitative Techniques in Complex Merger Review: Type and Purpose, 2003-2007, Ireland

	Quantitative Technique		
Purpose	***Regression Analysis***	***Simulation***	***Estimating Demand Systems***
Defining the relevant market	-	-	Estimating price elasticities using different methodologies for (i) cold sauces (M/05/033, *Heinz/HP Foods*) & (ii) soft drinks (M/07/027, *Britvic/C&C*)
Estimating the competitive effects of the merger (e.g. does the merged entity have market power)	Local price effects using the FTC's methodology in the 1997 Staples-Office Depot case for: (i) wholesale pharmaceuticals (M/04/020, *Uniphar/Whelahan*) & (ii) DIY retail sector (M/04/051, *Grafton/Heiton*).	Buy-around analysis concerning competition between two radio stations subject to the merger (M/03/033, *SRH/FM104*)	For each of the cold sauces & soft drinks cases, estimated cross price elasticities between overlapping products of the merging parties and other possible competitors in the relevant market.
Are there merger efficiencies?	-	-	-

Source: See text.

12 The Authority has the power under the Act to compel witnesses to attend before it and not only produce documents in their power and possession but also answer questions.

13 M/03/001, *Musgrave/Express Checkout*; and M/05/009, *Kingspan/Century Homes.*

Several conclusions can be drawn from Table 3.

- Quantitative techniques were used by the Authority to address all the salient issues in analysing a merger with the exception of analysing the impact of efficiencies. This does not reflect the fact that such techniques cannot be used to cast light on the importance of merger efficiencies, but rather that merging parties have not – even in the two mergers which were blocked by the Authority between 2003 and 2007 – argued either that the merger will result in substantial efficiencies and/or that these will more than offset any price enhancing effects of the merger. Certainly credible evidence on efficiencies that are consistent with the criteria set out in the Authority's *Merger Guidelines* has not been provided to the Authority. The Authority in its recent submission to the May 2007 OECD *Roundtable on Dynamic Efficiencies in Merger Analysis* outlined reasons for the lack of evidence on the efficiencies flowing from a merger being presented by the merging parties.

- Quantitative techniques have been employed for the purposes of defining the market on two occasions, and for analysing the competitive effects of the merger on five occasions.

- Quantitative techniques have been applied to markets where there are large data sets relating to prices and quantities available mostly but not exclusively at the retail level. For example, retail scanner data was used from AC Nielsen in M/05/033, *Heinz/HP Foods*, and M/07/027, *Britvic/C&C*, while the parties in another merger, M/04/051, *Grafton/Heiton*, supplied their own scanner data. In contrast in M/04/020, *Uniphar/Whelahan*, the data related to discounts offered by wholesalers to retailers to gauge the intensity of competition in wholesale pharmaceuticals.

- More often than not the use of quantitative techniques was on the initiative of the Authority (i.e., M/03/033, *SRH/FM104*, M/04/020, *Uniphar/Whelahan*, M/07/027, *Britvc/C&C*) although in other instances it reflected a need to check and extend the expert report submitted by the parties to the merger (i.e., M/04/051, *Grafton/Heiton*, M/05/033, *Heinz/HP Foods*).

- Quantitative evidence has been used together with other evidence in coming to a decision as to whether or not there is SLC. In such cases the quantitative evidence was, with one exception, consistent with the internal documents, customer and competitor evidence as well as other evidence that was presented. The exception concerned M/03/033, *SRH/FM104*, where the critical issue revolved around whether or not two radio stations were close substitutes from an advertisers' perspective. Here the buy-around simulation suggested "potentially substantial price increases because of the merger."[14] However, the evidence of the advertising agencies (the customers of the radio stations), the sworn testimony of the sales directors of the two radio stations and internal documentation provided by the parties, all suggested that the two radio stations subject to the buy-around analysis were not good substitutes for each other. In other words, a key assumption underlying the buy-around analysis was not supported by reliable credible evidence. The merger was subsequently cleared.

- One of the quantitative techniques not used by the Authority is the merger simulation models used especially in the US Department of Justice to estimate the impact of a merger. Rather the Authority has used methodology of relying on local price effects using the methodology employed by the Federal Trade Commission in Staple-Office Depot. Of course, the two methodologies are not mutually exclusive and going forward the Authority will investigative further the development and usefulness of merger simulation models.

14 M/03/033, *SRH/FM104,* p. 17.

4. Sourcing Expertise: Make or Buy?

The Authority has used outside experts to assist it in the use of quantitative techniques in merger analysis. Apart from the buy-around analysis which was undertaken by NERA, the Authority has hired an academic expert economist/econometrician to conduct the quantitative analysis. This has worked well for the Authority in terms of fast turnaround, competent work and good interaction with the Authority.

This choice to buy rather than develop in-house expertise reflects a number of factors. As noted above the Mergers Division is small. Furthermore quantitative techniques of the type included in Table 3 are used infrequently in merger decisions – on average one a year between 2003 and 2007.[15] If there were to be a marked increase in the number of cases[16] involving quantitative techniques then the Authority might have to rethink its choice of sourcing expertise.

5. Conclusion

Quantitative techniques are an important tool for gaining a better understanding of the key aspects of analysing a merger. The Authority has used such techniques to a limited degree in the past and in each case they have made an important contribution to the analysis. Going forward the Authority will continue to use such techniques and encourage parties to mergers to consider the use of such techniques in any expert economics reports that they submit, together with the underlying data. That way within the confine of the tight timetables under the Act such analysis can be efficiently completed both by the parties and the Authority.

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15 This should not be taken to mean that the Mergers Division does not employ quantitative techniques based on its own expertise. For example, in M/06/39, *Kingspan/Xtratherm*, a model was used to estimate the degree of excess capacity; in M/06/044, *Topaz/Statoil Ireland*, with the assistance of the merging parties, isochrones were used for the purposes of defining geographic markets in retail gasoline, while in M/07/027, *Britvic/C&C*, extensive correlation and cointegration analysis was conducted in relation to the issue of market definition. Furthermore, this expertise is currently being developed and maintained by in-house training in econometrics within the Authority. Such expertise is necessary to be able to commission and evaluate the results of the outside experts referred to in the previous paragraph.

16 These could, of course, not only be merger cases but also rule of reason cases as well as studies undertaken by the Authority.

APPENDIX: THE SET OF COMPLEX MERGERS

Table A.1. Authority Merger Determinations, Complex Cases,[17] 2003 - 2007[18]

2003	2004	2005	2006	2007 (Jan-Aug)[19]
Phase 2				
M/03/029, *Dawn/ Galtee* M/03/033, *SRH/ FM104* M/03/035, *Stena/ P&O*	M/04/020, *Uniphar/ Whelahan* M/04/032, *IBM/ Schlumberger* M/04/051, *Grafton/ Heiton*	M/05/024, *NTL/ UPC*	M/06/027, *Tetra Leval/ Carlisle* M/06/039, *Kingspan/ Xtratherm* M/06/057, *Coillte/ Wayerhaeuser* M/06/087, *Applied Materials/Brooks Software*	M/07/030, *GDG/AEPL* M/07/031, *Galco/Sperrin*
Phase 1 with Proposals				
M/03/001, *Musgrave/ Express Checkout*	M/04/016, *Stena/ P&O*	M/05/025, *SRH/Highland Radio* M/05/027, *M&J Gleeson/ United Beverages* M/05/028, *Alphyra/ Eason Electronic* M/05/050, *Eircom/ Meteor* M/05/009, *Kingspan/ Century Homes*		M/07/021, *Thomas Crosbie Holdings/WKW FM(Beat FM).*
Other Phase 1				
M/03/012, *Smurfit/ Litograph*	E/04/001, *Middlebrook Mushrooms/ Carbury Mushrooms*[20]	M/05/033, *Heinz/ HP Foods*	M/06/044, *Topaz/ Statoil Ireland*[21] M/06/051, *Largo/ Tayto*	M/07/027, *Britvic/C&C*

Source: see text

17 See section 2 above for a discussion of the criteria used to select complex mergers. Mergers are dated from when they are notified to the Authority (see footnote 3 above for details).

18 In all instances the actual determination is or will be shortly available on the Authority's website, www.tca.ie.

19 In one current case currently under investigation while it is likely to be complex, it is not clear into which of the categories in the table it will be classified, so although it is not included in Table 3, it is included in Table 2 above.

20 Below threshold merger investigated under Section 4 of the Act. See footnotes 3 and 10 above for details.

21 There was no Determination although it was a notified merger. For details see the Authority's *Annual Report 2006*, which is available on the Authority's website, www.tca.ie.

JAPAN

1. Introduction

In merger review by the Japan Fair Trade Commission ("JFTC"), particularly in the review of complex merger cases, the merging parties often make a request to the JFTC for prior consultation on whether such a merger has any problems with respect to the Antimonopoly Act ("AMA"). When the JFTC receives such a request, it initiates a review of the case in prior consultation even if the merging parties have not yet released the case. However, the investigation is bound to be unpublicized and voluntary in such cases. This is because the JFTC cannot give competitors and users/suppliers of the merging parties an open hearing or conduct questionnaire surveys on them, and therefore, it has to rely on information voluntarily provided by the merging parties.

In these circumstances, the JFTC conducts a more detailed review ("Phase II review") if it finds that the investigation described in the first paragraph is insufficient to judge whether such a merger has any problems in terms of the AMA. In proceeding to the Phase II review, the JFTC requests the merging parties themselves to make such a merger case known to the public. After the merging parties have made the merger public, the JFTC announces that a Phase II review will be conducted. This is done to make it easy for the JFTC to interview competitors, users/suppliers and others and to call for comments from a wide-ranging public on such a merger plan (public comment procedure).

The JFTC does actually conduct an interview and survey through questionnaires, if necessary, in the Phase II review. Information gained by these methods is valuable because it helps us to judge the conditions of competition in the relevant markets. However, if the method of collecting such information lacks balance, and the results of the analysis are not objective, the reliability of the judgment by the JFTC may be impaired.

The JFTC pays attention to these points while conducting interviews and questionnaire surveys, and we would like to introduce their essential points as follows:

2. Interviews

When the JFTC decides to conduct a Phase II review[22], it notifies the merging parties concerned. At that point, the JFTC informs the merging parties of the matters that require further confirmation (for instance, the price negotiating power of users/suppliers, possible substitution by other products, and level of competitive pressure from imported goods) and the plan that the JFTC will conduct interviews with the users/suppliers and competitors on these matters.

The JFTC decides which competitors are selected after confirming with the merging parties, while users/suppliers whose comments are sought in an interview are selected from among those in a list of users/suppliers submitted to the JFTC by the merging parties. Before selecting the users/suppliers, data on the kinds of goods that the users/suppliers purchase or supply, their quality, amount, etc., are obtained in advance from the merging parties. While selecting the users/suppliers, attention is paid to the following: to select multiple parties in a well-balanced way for each category of users/suppliers, competitors, etc.; to preferentially select the users/suppliers who conduct transactions with both merging parties to make it easy to grasp the effects of the merger; to ensure that the selected users/suppliers are well balanced in their scale

[22] Interviews may be conducted on the cases publicized by the merging parties, even during the Phase I review.

and other peculiarities; and to ensure that the merging parties do not consider the selection as an arbitrary decision of the JFTC.

3. Questionnaire surveys

As a survey through questionnaires can be made at once and extensively, this method is utilized more often for users/suppliers than for competitors. As in the case of interviews, the users/suppliers who undergo the survey are selected from a list of users/suppliers obtained from the merging parties. In selecting users/suppliers, it is necessary to ensure that the selected users/suppliers (samples) are representative of the market (a population). If there is variation in the particularities of users/suppliers, such as their business scale and transaction methods, attention is paid to this point.

In conducting a survey, it is necessary to statistically process the results of the survey and to make it clear that the information obtained, the names of companies and respondents' details are never made public in order to gain cooperation from the companies surveyed.

Since it is necessary to complete the questionnaire survey within the limited review period, and to ensure that a certain ratio of respondents is achieved, some possible methods would be to concentrate on a few essential points pertaining to the issue; to use some multiple choice questions; to accept answers in numbers. These would enable the surveyed users/suppliers to respond quickly and the officials reviewing the case to process the results of the survey statistically.

Furthermore, depending on the replies to the questionnaire survey, the JFTC sometimes conducts a more detailed hearing interview, as demanded by the occasion, in order to ascertain the intentions and background of the responses.

4. Public comment procedure

While making it public that it is conducting the Phase II review, the JFTC simultaneously instigates procedures for public comments. Any individual wishing to comment on the proposed merger in question may submit a written comment within 30 days from the day the JFTC publicly announces the Phase II review will be conducted.

Soliciting more bias-free comments from a wider section of the public through the procedure of public comment makes it possible to supplement the questionnaire survey and interview.

5. How the results of the interviews and the questionnaire survey are treated

In the process of the Phase II review, if it wishes to point out that the proposed merger poses a question in light of the provisions of the AMA, the JFTC shows the grounds on which we have judged that the merger poses such a question, except where they touch on the confidentiality of other businesses. On such occasions, the JFTC shows the results of the survey/analysis and the questionnaire survey it has conducted. In publicizing the results of the review, the JFTC, at the same time, makes the outline of the questionnaire survey public, along with the results of the interviews in some cases (see the Appendix). Thus, the increasingly enriched quality of the publicized matter in merger cases can be appreciated from the viewpoint of ensuring transparency.

6. Conclusion

As can be seen above, the JFTC manages to ensure objectivity and transparency in each stage of the interview and survey. In addition to such efforts, in order to realize a bias-free and objective merger

review, it is important for the JFTC to make an objective analysis of the results obtained through the interview and survey and to make a judgment regarding the effects of such a merger on competition.

APPENDIX

Results Of The Questionnaire Survey In The Case Of The Business Merger Between Mitsubishi Tokyo Financial Group And Ufj Holdings (Excerpt From A Press Release On May 11, 2005)

Through the merger, ordinary banks and trust banks that are subsidiary companies of the merging parties will be able to conduct business with slightly less than 3,200 companies (approximately 85%) of about 3,700 companies listed on the stock exchange. Of these companies, the number of companies listed on the stock exchange whose total amount of loans from the merging parties tops the loans from any other single bank will exceed 800. For these reasons, the JFTC conducted a questionnaire survey of businesses (companies listed on the stock exchange, middle-ranking companies, and small and medium sized enterprises) that receive a loan from the merging parties concerning the effects of the merger on industries.

The main points of the results of the survey are as follows:

1. Assessment of the merger

Slightly less than 40% of the mentioned businesses answered, as an assessment of the merger in question, that "the proposed merger will increase the ability to provide business information" and "will enhance the quality of service and convenience".

2. The effects of the merger on the management of individual businesses

- The businesses that replied that they would change the procedure of raising funds for equipment and operation accounted for about 35% each for equipment and operation. On the other hand, the businesses that replied that they would have no alternative means of raising funds for equipment and operation, and would be unable to change the procedure of doing so, accounted for about 25% and 20% of the entire businesses, respectively.

- Among the businesses that get a loan from both groups of banks, the ones who replied that they would consider changing the percentage of their loan upon the merger amounted to more than 60%.

- With regard to the terms of borrowing, slightly less than 60% of the businesses replied that they did not expect any particular effects, while less than 15% replied that there would be unfavorable effects.

- With respect to the requests made by the merging parties to the businesses regarding transactions other than loans (request for deposit, etc.), or requests to nominate the merging parties as a trustee company of their debenture, or other similar requests, the businesses that have no such request at present, prior to the proposed merger, and those who do not expect to have such a request from the merging parties, accounted for more than 60% each.

- In connection with the effects of the merger on the management of individual businesses, the merging parties replied that they would continue to make efforts for compliance items

(improvement of the system, preparations of manuals, informing executives and staff members, regular voluntary check-up of the position regarding compliance with laws and ordinances, etc.), which Mitsubishi Tokyo FG and UF JHD submitted to the JFTC at the time of their establishment.

3. Effects of the merger on the reorganization of industries

A little more than 75% of the businesses replied that there would be no effects in particular.

4. Effects of the merger on transactions within the business group

- Mitsubishi Kinyokai, with the chairmen and presidents of 29 companies, including The Bank of Tokyo-Mitsubishi Ltd. and The Mitsubishi Trust and Banking Corporation and Suiyokai (the former Sansuikai), together with the chairmen and presidents of 48 companies, including UFJ Bank Ltd. and The UFJ Trust and Banking Corporation, conduct regular meetings.

- With respect to changes in transactions within and outside the business groups after the merger, approximately 90% of the businesses both within and outside the business groups replied "there would be no change in particular."

With regard to the effects of the merger on the transaction within the business groups, the merging parties replied that no exclusive business group would be formed with the Bank at the core, even in the future, as pledged to the JFTC at the time of establishment of Tokyo Mitsubishi FG and UFJHD.

KOREA

1. Introduction

Merger review is not so much about finding facts about past happenings effectively and completely as in review of cartel cases as it is about predicting changes in market competition as closely as possible after logically analyzing and combining current conditions of competition.

Naturally, merger review calls for far more complex process compared with other cases of competition law violation. In particular, review of merger in markets that are new to competition authorities, such as the retail distribution market and the banking market where there are a number of enterprisers directly or indirectly in competition, markets where there is a great variety in the products being sold and the technology market, requires market research, including consumer survey, and economic regressive analysis because economic reasoning alone is insufficient.

Consequently, competition authorities must receive extensive raw data from the merging companies for detailed analysis, and conduct market research or seek opinions of experts or interested parties in order to correctly reflect the market situation.

Therefore, how and to what extent to collect the necessary data, how to conduct efficient and objective market research including consumer survey and how to obtain needed expert knowledge become crucial in reviewing complex merger cases.

This report will focus on introducing merger cases handled by the KFTC which involved complicated and vast data analysis, cases related to effective market research and cases related to effective acquisition of expert knowledge.

2. Merger Review involving Complex and Vast Data Collection

2.1 A. Review of merger between liquor companies (Sep. 2005)[1]

The key issue in the review of Hite Brewery's acquisition of Jinro's shares was whether the beer market and the soju market could be defined as the same product market.

The acquiring company, Hite argued that the two markets were classified as the same product market submitting an economic analysis report, which applied the critical loss analysis. In response, Hite's rival company, Oriental Brewery (OB) submitted a separate report also based on the critical loss analysis to claim that the two markets are different markets.

For reference, the KFTC asked all beer and soju companies to submit schedules of cost of goods manufactured of each item for the latest three years with their business reports and requested Korea Alcohol and Liquor Industry Association to give three-year sales data by company, product and region. In

[1] This case involved Korea's No.1 beer company, Hite' acquisition of Korea's No.1 soju company, Jinro, which was the first case where the KFTC imposed remedies on a conglomerate merger.

addition, Hite's major rival companies and several liquor wholesalers were asked to present opinions on whether the two markets were identical and whether the merger in question would restrict competition.

The KFTC, in particular, commissioned a review of the two submitted reports to outside experts to ensure objective judgment, which was used as an important basis of its decision on market definition[2].

2.2 Review of merger between large discount stores[3]

First of all, the KFTC needed to determine whether the discount store market can be defined as an independent product market from others in the retail distribution industry. So the KFTC requested discount store operators in Korea to present reports of their internal survey on competition among retail distributors, including discount stores, department stores, supermarkets and convenience stores, in addition to their internal business reports or operating reports. At the same time, the KFTC received the result of AC Nielson[4]'s survey of consumers' use of retail stores. After conducting an analysis based on these data, the KFTC could confirm that the discount store market was independent from department stores, large supermarkets, convenience stores and traditional markets.

In this review, the KFTC put particular efforts to geographical market definition. Considering that consumers tend to use the discount store nearest to their homes for the sake of convenience and that discount stores' limit their trading area to areas within several kilometers of the store when conducting marketing campaigns, discount store market has a strong characteristic of a local market. Thus, it was necessary to analyze an enormous amount of data for a detailed definition of the local market.

To this end, the KFTC asked the concerned companies to submit data on consumer distribution of each store[5] for the past one year, three-year data on each store's trading area that the company perceives (including business plan and other internal documents) and data on each store's weekly sales price of top 100 items in terms of sales for the past year. Moreover, discount store operators were asked to present the criteria for management of the unbeatable price guarantee system[6] and its performance data for the latest three years.

The analysis of the received data illustrated that there were fierce competition among discount stores in each area and that local markets had been formed within the radius of five kilometers (in urban areas) or of ten kilometers (in rural areas) from respective stores. Particularly, the KFTC could see that the sales price in a market with multiple involved enterprisers was higher compared with the price in a monopolistic or oligopolistic local market.

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2 Consulting outside experts' review result, the KFTC confirmed that the two markets were separate from each other.

3 Eland Retail (No.5)'s acquisition of Carrefour Korea (No.4) and E-Mart (No.1)'s acquisition of Wal-Mart Korea (No.8)

4 Every year, AC Nielson produces a report on market survey of retail industry including its consumers purchase pattern and consumers' perception and distributes it to related companies.

5 Data on consumer distribution and sales proportion among consumers who have signed up for membership for every kilometer away from each store

6 Since discount stores' main selling point is in the price lower than other discount stores, discount stores run a system of compensating consumers who complain of buying a product at a higher price than at other stores by giving refunds, equivalent to three times the price difference or 5,000 won. The system performance differed among different stores depending on the competition they faced.

2.3 Review of merger between large banks (May 2006)[7]

Here, the first question the KFTC had to answer was whether the commercial banking market could be defined separately from non-banking financial institutions, the non-banking sector or special banks, which conduct similar banking businesses. In this respect, the KFTC asked all commercial banks, the association of non-banking financial institutions and special banks to submit documents on their perception of the competition among them (including materials for internal review and market survey results), and each bank was made to present opinions on this account.

Even if the independence of the commercial banking market is recognized, the variety and complexity of products offered by commercial banks caused the problem of how to define the product market in detail. To address this, the KFTC had banks submit the list of all of their products and services with their detailed characteristics. The KFTC, in particular, asked banks to define the scope of products that can be bundled together as similar products taking into consideration the product characteristics, target clients, sales strategy, applied interest rates and clients' usage pattern.

With regards to the geographical market definition, the KFTC needed to determine whether there existed a local market in the domestic banking market and if so, how to define it specifically.

For this, the KFTC asked concerned companies and major banks to submit data on the monthly average price (interest and fee) applied to each product and on each branch's interest margin sorted by administrative district (City, Gun, Gu). In addition, each bank's regional headquarters' business plan and reports on regional competition situation had to be presented. In relation to detailed definition of the regional market, each bank was asked to submit data on the transaction volume by product while the concerned company had to hand in materials such as client distribution chart of each branch in respective administrative districts.

The reason why the KFTC had no choice but to ask these detailed data of each bank was that the official data disclosed by the financial supervisory authorities, including the Financial Supervisory Commission and the Bank of Korea, are mostly limited to analysis of the overall banking market.

Fortunately, material submission itself was not difficult because banks systematically store vast and complex data in their central server, but the submission took some time due to the complexity and enormity of the data concerned.

3. Measures to Ensure Effective and Objective Market Research and Related Cases

In case the merging companies fail to submit the detailed result of their market research, the KFTC, after mutual consultation, orders the merging companies or a third agency to conduct a market survey. Usually, a third agency is commissioned to do the job to ensure objective results.

For instance, when the KFTC handled Paris Croissant Co.'s acquisition of Sam Lip General Foods Co. (Dec. 2002), the key was in determining whether the mass-produced bread and bakery-made bread belong to the same product market. To determine this, the KFTC asked a third research agency (Research & Research) to conduct a consumer survey.

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7 While conducting an intensive review of Kookmin Bank (No.1)'s acquisition of Korea Foreign Exchange Bank (No.6)'s shares for about six months, the KFTC had to end its review in November 2005 due to contract cancellation by the party to the stock trade contract. Therefore, this report will be unable to provide the details of the official result of the review or the KFTC's decision, while explaining the data analyzed in the review process.

Meanwhile, in case the merging companies submit market research results or economic analysis data, the KFTC hires an outside expert to review them in an objective manner.

As mentioned before, when reviewing Hite's acquisition of Jinro, Hite and its rival, OB, submitted market survey results and economic analysis data respectively, the review of which was commissioned to an academic expert by the KFTC.

But in the case of large discount store merger review, the data submitted by the merging parties were used instead to prove the validity of the KFTC's deliberation.

In reality, when reviewing market definition and anti-competitiveness regarding merger cases, market research results or economic analysis data based on such market survey normally have a decisive influence over the KFTC's final decision, particularly so in complex merger cases.

Thus, if the market survey results or economic analysis data, which the competition authority employs or relies on to prove validity of its deliberation or to prepare for future lawsuits, are done or reviewed by a third party where possible, the objectiveness and credibility of the data can be guaranteed.

4. Measures for Effective Acquisition of Expert Knowledge about the Market and Related Cases

First of all, in terms of the competition authority's organization and personnel management, specialization of the merger review-handling team by industry, exchanges with industry experts and continued study into each industry are necessary.

At present, the KFTC has divided the entire industry into about 20 sub-groups and each member of the Merger & Acquisitions Team is responsible for two to three industries. In the future, the Headquarters for Competition Law and Policy will be reorganized (into five teams) so that each team can focus on handling merger reviews for their competent industry.

As for important industries, the KFTC holds "competition policy consultation meetings" (e.g. for the financial and distribution sectors) consisting of industry experts to discuss major competition policy issues related to each industry. The consultation outcomes are used in merger reviews, and especially concerning the financial industry, the KFTC is maintaining its exchanges with various academic groups where financial experts of various backgrounds attend. Moreover, after completing the reorganization of the Headquarters for Competition Law and Policy, the KFTC is planning to create an industry-based expert pool to support merger reviews.

The KFTC also obtains detailed information about the concerned market from enterprisers' organizations, rival companies and other stakeholders in the concerned industry when necessary. Enterprisers' organizations or rival companies are good sources of data on the overall competition conditions of the market in question, and they may also provide detailed opinions on the concerned merger.

PORTUGAL

The Portuguese Competition Authority, as most probably many other Competition Authorities, has been challenged, in the past, and continues to be faced with complex merger cases that require sophisticated tools to assess, with comfortable certainty, whether or not the concentration would create or strengthen a dominant position that results in significant barriers to effective competition in the Portuguese market or in a substantial part of it.

The legal deadlines imposed for merger analysis become particularly challenging when the PCA faces complex merger cases, for which robust and well founded decisions require gathering and analysing a large amount of data from the parties and the market in general.

Among the complex merger cases analysed by the PCA, an important part of those cases involved companies active in regulated markets. In such cases, the PCA reinforces the Merger Department case team with resources from other Departments, in particular from the Department of Regulated Markets, where expertise on specific industries can be found. That was the case, for instance, in the recent complex mergers cases in the Telecommunications Sector (*Sonaecom/PT*), in the Banking Sector (*BCP/BPI)*, in the Energy Sector (Gas natural/Endesa), and in the Air Transport Sector (TAP/PGA).

When dealing with complex cases, several economic studies are taken into consideration, not only those submitted by the notifying parties and by third interested parties, but also, when necessary, studies developed in-house or commissioned by the PCA to external consultants, namely international economic consulting firms and renowned academics, with specialised expertise on the subject.

Also worth noting is the involvement of sector regulators at various stages of decision-making, when dealing with activities in regulated markets, which follows directly from the legal framework for merger review, which establishes the need to consult the respective sector regulators.

An important challenge faced by PCA, in a number of notified mergers, refers to the obtaining, collecting and processing large and complex data sets, which may provide significant information both for relevant market definition and for the competitive assessment of the merger.

In the BCP/BPI merger case, for instance, the PCA had to gather a massive and complex dataset in order to assess more accurately the impact, both in terms of unilateral as well as coordinated effects of the merger. Questionnaires were sent to the parties and other market participants, attempting to explain in great detail which precise information is needed. Some of the questionnaires sent were accompanied by excel files in which the answer should be introduced. The preparation of these questionnaires, so as to avoid heterogeneous interpretations and to guarantee the quality of the answers to be used in the subsequent analysis, is one of the most important stages in constructing a solid data set.

Information requests were sent, in this particular case, to a total of 10 banks, covering a number of different topics such as market shares, price series, churn rates, switching barriers, among others. Despite of the effort made to conceive a clear and objective questionnaire, there was the need to book meetings with almost all of the banks, so as to clarify doubts in the correct interpretation of the questions, as well as to validate answers that seemed counter intuitive.

As part of the carried out investigation, in-house economists developed an econometric analysis, which required the construction of a data base of cross sectional data at the consumer level, aimed at estimating price elasticities of demand and the marginal costs associated with the products under analysis.

The development of this analysis required two samples of information on 1000 private costumers and another one for small and medium enterprises, clients of seven of the eight largest banks in Portugal. This data allowed the PCA to obtain estimates to be used in simulation analysis, which allowed for some insight on the potential unilateral and/or coordinated effects, as a result of the merger, in some relevant markets.

Another complex case which required the gathering and handling of large and complex data sets was the Sonaecom/PT case. In this case, the PCA also recurred to a number of market studies and econometric analysis that had been previously developed within the PCA, as well as academic studies developed for the PCA (e.g., by academics at the New York University), specifically concerning the Portuguese Telecommunications market. However, the complexity of the case led to the development of further in-house econometric studies and simulation models, as well as commissioned studies to external consultants, namely RBB Economics and Oxera, which required specific information requests.

In the context of the Sonaecom/PT merger procedure, the notifying party submitted studies commissioned to CRAI (Charles River Associates International) and NERA Economic Consulting, and studies developed by its financial advisors. In turn, the target firm, PT, submitted studies developed by economic consulting firms, namely LECG.

In order to provide the PCA with information on market definition and on the effects of the merger, a study, commissioned by the notifying party to CRAI, was also submitted in the BCP/BPI case.

In both the Sonaecom/PT and the BCP/BPI mergers, the PCA had access, through the notifying parties, to other off-the-shelf market studies that, although not tailored to answer the questions being held, covered important topics such as consumer perceptions and behaviour, as well as mobility issues.

Another case worth mentioning is the Via Oeste (Brisa)/AEO/AEA merger, in the motorway sector, where the notifying party submitted a few studies developed by an independent entity, providing consultancy in the transport sector, in which a model aimed at traffic prevision was developed. Among the results presented in these studies were estimations of both market and cross-demand elasticities.

These studies were useful to the PCA, both in market definition and competitive assessment, when analysed together with other elements, such as previous traffic prevision by Brisa, and other studies and reports developed prior to the merger procedure.

Consumer surveys may also be important when dealing with complex merger cases, particularly so as to obtain clarification concerning product market definition. This was the case in the Barraqueiro/Arriva merger, involving a rail company and a bus provider, where an adequate definition of the relevant product markets implied assessing the existing substitutability between two distinct means of transport, in the area affected by the merger.

Initially, the PCA considered it would be relevant to perform a SSNIP test, by means of the survey, focusing on the consumer reaction to a hypothetical 5 to 10% increase in prices. However, following detailed discussions with the notifying party, and given that there was price regulation both in rail and bus services, the notifying party considered the test would not be fully understood by customers, and could have a negative impact on the companies' image.

As a consequence, other type of questions were designed to capture the existing substitutability between the two means of transport concerned, namely if the two services could be considered viable

alternatives, whether customers had switched, in the past, from one service to the other, and which reasons might have driven the switch (prices, quality, frequency, services offered, etc.).

This survey was carried out by an independent entity contracted by the notifying party, and the process involved discussions, concerning the details and form of the survey, between the PCA and the independent survey company, until a final version was approved by the PCA.

In order to make the survey effective, the PCA ensured that the survey was very concise, aiming directly at addressing the matter of substitutability between the two services. It was also ensured that the sample of answers was large enough, so as to obtain bias free results from the survey, which could consist in valid information for the merger analysis.

Finally, concerning the requirements of specific expertise, not available in-house, involving complex technological issues, it is worth mentioning the specific case of the Sonaecom/PT merger, where matters such as usage and availability of radio-electric spectrum and the evolution of GSM/GPRS and UMTS networks had to be addressed. With respect to these issues, the PCA requested the notifying party to submit studies in the area, which were analysed together with information provided by the sector regulator.

NETHERLANDS

1. Introduction

The Netherlands would like to offer some comments on the issue of managing complex merger cases. What follows is not an all-encompassing analysis, but a discussion of a few essential aspects of managing complex mergers. We thus hope to contribute to the development of a more insight for dealing with these complex merger cases.

Our comments are structured as follows. Firstly, we discuss the different aspects of an exact definition of complex merger cases. Secondly, we illustrate the NMa's practice of analysing these complex merger cases by briefly reviewing a number of key merger cases in which the services of external consultants were used. Finally, we will give some closing remarks.

The message we want to convey is that the use of statistical, econometric or other forms of advanced quantitative techniques and surveys is very useful in managing complex merger cases but that experience shows that these techniques should not be the only element in the assessment of these cases but should be a supportive element to the qualitative analysis.

2. Essential aspects of managing complex merger cases

What constitutes a complex merger case is not easily defined. A broad range of cases potentially falls within this category. New or highly technological industries often require more effort from the case team in order to fully understand the competitive process. Other complexities might arise from complex legal issues surrounding the definition of a concentration, thresholds or the impact of sector regulation. The assessment of possible remedy proposals and their expected results is also a potential source of complexity.

In this submission we focus on complex issues surrounding the use of external market surveys and models with regard to market definition and the assessment of a dominant position.

Due to the time restraints merger review in a first-phase merger inquiry often does not make use of external consultants or large market surveys. In one case concerning bidding markets an external survey was considered in the first-phase but rejected because of these timing issues. External surveys usually take a fair amount of time. First of all the goals of an external survey should be decided. After the formulation of these goals and the standards the NMa sets for the research performed by external consultants a bidding process usually begins. The selection process of a qualified third party to carry out this type of research then requires at least several days not withstanding the time required to design, test, execute and analyse the results of such a survey. Therefore it is our experience that these kinds of market studies are most often carried out in second-phase merger investigations. If the NMa has indications that parties will apply for a clearance in a second-phase inquiry, the process of deciding the goals and standards for an external survey can in some cases be initiated between the first phase decision and the application in order to save time if possible.

All second-phase merger investigations are based on some kind of a market survey. Most of these surveys are qualitative and only in a few cases quantitative surveys are used. The analysis of the results of these market surveys are mostly carried out inside the NMa. Since 2006 we have a chief economist and his

team to assist merger case teams in their analysis. In some cases, in-house sector expertise is used. In for example energy merger cases the sector expertise from the energy regulator DTe is used in order to quickly understand these complex markets.

3. Case studies

In this section a selection of important cases will be discussed. Since 1998 the NMa has dealt with over 15 merger cases involving complex merger cases in which studies by external consultants were used, mostly within energy markets and media markets. We will provide a short summary of the background, what made the cases complex and the role of external studies in our analysis.

3.1 1528/De Telegraaf – De Limburger

In 2000 the owner of the largest national newspaper, De Telegraaf Group, wanted to acquire the regional newspaper De Limburger. De Telegraaf Group already owned the only other regional newspaper in the province Limburg, Limburgs Dagblad. For determining the relevant product market external surveys were used in the second-phase by both the NMa and the parties in order to answer the question whether national newspapers and regional newspaper were in the same relevant product market. In survey carried by external consultant stated and revealed preference (via conjoint analysis) were used in order to determine the relevant market. The results of these surveys pointed towards a separate market for regional newspapers. Internal documents from the parties and the views from competitors revealed that national newspapers do exert competitive pressure on regional newspapers. Based on the combination of these two sources the NMa concluded that regional newspapers and national newspaper belong to the same product market but when regional newspapers are active in the same geographic region they are each others closest competitors. In this case remedies were offered and accepted in order to clear this case.

3.2 3386/Nuon – Reliant

This 2003 case involved the take-over of power stations owned by US power company Reliant situated in the Netherlands by Nuon (one of the largest integrated power utilities in the Netherlands). To assess the competitive effects of this takeover the NMa used two different existing econometric simulation models in cooperation with the external consultants who had designed them.[1] Besides these models the NMa also used sector specific expertise from the Dutch energy regulator (DTe). Market shares were not seen as the best proxy for market power in this case. The results from the models indicated that prices would rise after the concentration, although the combined market share was not extremely high. The results were interpreted as evidence that the concentration would lead to a strengthening of a dominant position. Subsequently remedies were offered and the take-over was cleared subject to these remedies. Nuon lodged a successful appeal against the decision. The District Court of Rotterdam annulled the decision and stated that the models used did not give an indication of a dominant position would be created or strengthened and that the possibility of a rise in prices did not justify the conclusion that such a dominant position would be created or strengthened.[2] Appeals from the NMa against the decision of the Court were unsuccessful. The Court of Appeal ruled that in case the NMa uses a model it should be a realistic reflection of the behaviour of the undertakings on the relevant market and thereby represents the most plausible scenario.[3]

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1 For more information about the use of models in this case see De Maa and Zwart (2005), *"Modelling the Electricity Market: Nuon –Reliant",* which can be found in Van Bergeijk and Kloosterhuis (2005), "*Modelling European Mergers – Theory, Competition Policy and Case Studies", pp 150-171.*

2 Court of Rotterdam, judgment of 31-05-2005, LJN: AT6440, available at: http://zoeken.rechtspraak.nl/default.aspx.

3 Trade and Industry Appeals Court, The Hague, judgment of 28-11-2006, LJN: AZ3274, available at: http://zoeken.rechtspraak.nl/ResultPage.aspx

In this case, the Court ruled, the NMa had not proven sufficiently that strategic withholding of capacity (which was an assumption of the models) actually occurred on the Dutch energy market. Some doubts have been expressed about the need to explicitly prove this kind of strategic behaviour, because reducing output to raise prices is normal profit maximising behaviour for an undertaking which has a degree of market power.[4]

3.3 5901/ Bloemenveiling Aalsmeer – FloraHolland

On the 21th of August 2007 the NMa cleared the merger between the two largest flower auctions in the world. In the first-phase the NMa came to the preliminary conclusions that (a) there was not sufficient evidence that direct trading between growers and (professional) buyers was a substitute for the auctioning and brokering services offered by Bloemenveiling Aalsmeer and FloraHolland; and (b) that the geographic scope of the market was limited to the Netherlands. As a part of the second-phase investigation the NMa commissioned a large online survey among growers and professional buyers of horticultural products. The NMa designed the survey with specific expertise from the chief economist's office. The questions in the survey were tested beforehand by visits to growers and buyers and adjusted thereafter. After tests the survey was put online and invitations were sent to over 10.000 growers and 3.700 buyers who all received a unique login name and code for the online survey. Written questionnaires were available for undertakings without an internet connection. Just under 2.000 growers and about 700 buyers participated in the survey. The results, together with other more qualitative evidience, convinced the NMa to reconsider their preliminary conclusions because the results – even when interpreted with extreme caution – showed that the amount of customers that would switch to alternatives (especially direct trading) at home and abroad in case of a raise in prices or reduction of quality was large enough to render that raise in prices or reduction in quality non-profitable. The actual loss caused by switching would be larger than the combined auction's critical loss, which the NMa had calculated using cost data provided by parties. The use of the internet to perform a survey of this magnitude was extremely useful as it made processing the answers relatively easy and provided the team with the opportunity to target specific questions to specific subgroups of respondents.

4. Concluding remarks

The use of statistical, econometric or other advanced quantitative techniques is very useful in assessing complex merger cases. However, these techniques should be a part of a wider assessment involving qualitative arguments as well. The strict legal deadlines for deciding whether to clear a merger or not entail that deciding on a model to use or which questions to ask in a survey is a one shot deal: an authority only has one try to get it right. If a mistake is made the authority should still have enough elements to build a solid case and make the right decision to prevent false positives or false negatives.

[4] See van Dijk, (2007), "*Op zoek naar de rol van simulatiemodellen bij de beoordeling van concentraties",* Actualiteiten Mededingingsrecht, issue 6, juli 2007.

NEW ZEALAND

1. Introduction

The New Zealand Commerce Commission (the Commission) has had some experience in employing modelling and quantitative techniques to its merger analysis. Some of these applications have involved large data sets, usually supermarket scanner data. In other cases the data requirements have been relatively limited. It has not used formal market surveys.

In what follows, we first present several brief case studies where a range of modelling/quantitative techniques have been used. These relate to market definition, merger simulation, the modelling of business entry, and econometric modelling.

The second section outlines the Commission's approach to the use of modelling and quantitative techniques, the reliance it places on the results, and its new quality control policy for this work.

The major points we wish to make about the use of modelling/quantitative techniques in the merger context are the following:

- they are a valuable aid for assessing various aspects of merger applications, such as defining markets, assessing entry prospects and simulating post-merger price effects;
- they rarely produce unqualified results, and alternative formulations are usually possible, so the insights they provide have to be weighed against the qualitative evidence available;
- nonetheless, by setting out underlying assumptions and structures, they foster transparency of process, a focus on key issues, and facilitate the sensitivity testing of key parameters; and
- as they are subject to the risk of error, especially in the typically constrained timeframes within which merger evaluations have to be conducted, it is important that critical models are subject to quality controls and accountability reporting.

2. Case Studies

2.1 Case Study 1: Market Definition

In August 2005, Fonterra Co-operative Group Limited (Fonterra), a very large dairy company, sought clearance from the Commission to acquire the branded butter and spreads business of New Zealand Dairy Foods Limited (NZDF).

In its Application, Fonterra defined a market for consumer yellow fats, which included butter, margarine, and blends of the two. As a result of this transaction, Fonterra's share of this market would have increased only moderately (the precise numbers are confidential). However, in the butter segment of the claimed consumer yellow fats market, which was the focus of the clearance and where aggregation would have occurred, Fonterra's market share would have increased very substantially, and to a high level. Although the former aggregation would probably not have been a problem, the latter clearly raised

concerns about a possible significant lessening of competition. Market definition thus became a critical issue in the case.

Fonterra's use of the broad, consumer yellow fats market followed the precedent established by the Commission in its previous Decision 487 in 2003. This market definition had been arrived at by the balancing of conflicting, largely qualitative, evidence about the substitutability of butter and margarine from both supermarkets and manufacturing firms. Some empirical evidence was also used, but this was drawn from dated, overseas' studies.

In the 2005 case the Commission found some qualitative evidence suggesting that butter and margarine may not be close substitutes after all. Supermarkets' promotional programmes for butter were planned separately from those for butter blends and margarine, and no account was taken of the impact of the one on the other. Also, the switching by consumers from butter to margarine was thought likely to be due to health considerations, rather than in response to changes in relative prices, as margarine was promoted by the manufacturers, and was perceived by consumers, as being a healthier alternative. Market research done by one supermarket chain had also confirmed that consumers tended to buy both margarine and butter, which were preferred for different purposes.

Given these contradictions, the Commission decided to test empirically whether butter was in a separate market, or was a close substitute for margarine and therefore part of a broader yellow consumer fats market. This involved the collection of a substantial amount of market data. The Commission requested Fonterra to provide it with supermarket scanner data all for brands of butter, margarine, and blends. As more than 80% of sales are through supermarkets, using data from the supermarket was thought to be sufficient to describe the consumer demand system for these products.

The data covered 104 consecutive weeks over the period from 20 July 2003 to 10 July 2005, and included the weekly sale volumes and average weekly prices of butter, margarine, and blends by brand, aggregated at the national level. The Commission further disaggregated this data by splitting the margarine product category into high-value and low-value margarines.

A range of quantitative techniques were used to make the assessment, including:

- a simple diagram of consumers' responses, in terms of butter, margarine, and blend sales, to changes in the butter price;
- price correlation analysis, which looks at the correspondence of price movements of butter and its potential substitutes, margarine and blend;
- stationarity analysis, which considers to what extent the price levels of two products move together over time;
- econometric analysis to estimate the demand functions for butter, margarine, and blends; and
- using the price elasticities thus derived in the critical loss analysis to perform the SSNIP test.

The Commission's simple diagram of consumers' responses suggested that as the butter price goes up, butter sales go down as expected, but neither margarine nor blends sales go up, as would be expected if they were substitutes.

The use of price correlation analysis to test the correspondence of the price movements of butter and its potential substitutes did suggest that the prices of butter, margarine, and blends were correlated.

However, this might have been because of the common inputs used in manufacturing the different products. For example, butter, margarines and blends may all use milk and oil as inputs, in which case their prices would be likely to be all highly correlated with milk and oil prices.

To address the common inputs problem, we looked at the correlations between the price changes of butter, margarine, and blend. The analysis suggested that changes in margarine and blend prices were not significantly correlated with changes in the butter price. Likewise, the correlation between butter price changes and margarine and blend sale changes were not quantitatively significant.

The use of stationarity analysis to test whether the relative prices between margarine and butter, and between blend and butter, were stable over time suggested that these relative prices were not stationary.

Econometric analysis, employing different functional forms, was also used to estimate the demand functions for butter, margarine, and blends. The results suggested that the price elasticity for butter was between -1.0 and -1.7, suggesting that a 10 % increase in the butter price would lead to a 10-17% decrease in butter sales. The price elasticity for butter thus derived was then used as an input in the critical loss analysis.

The critical loss analysis suggested that in order for 10% price increase to be unprofitable, the profit margin of the hypothetical butter monopoly would need to be more than 40%, which was unlikely the case. Hence, a 10% price increase would be profitable for a hypothetical butter monopolist.

Before making its final determination, the Commission put out its quantitative analysis to both the acquirer and vendor for comment. Written submissions were received from the parties' economic experts. The submission made by the Applicant tended to confirm the Commission's econometric analysis on price elasticity. However, concerns were raised that the national aggregated data might eliminate important competitive information critical to the analysis of substitution, such as the importance of promotional patterns by individual supermarkets, and that the Commission's price elasticity analysis suffered from a number of data problems. Further analysis was carried out in response to these concerns, and even after taking them into account, the data still indicated that butter was likely to be in a separate market.

Based on all of the above, the Commission in its decision defined a separate market for butter, thereby overturning the market definition precedents in this area. The high market share of the combined entity meant that existing competition was unlikely to provide a constraint, but nonetheless, because of a range of other factors—including convincing evidence of likely and actual new entry (which subsequently materialised), and the supermarkets having countervailing power arising from the availability of alternative sources of butter, including from imports—the Commission was able to clear the Application.

2.2 Case Study 2: Merger Simulation

Merger simulation is a set of quantitative techniques used to predict the price effects of mergers in differentiated goods markets. In short, merger simulation takes as a starting point a model of equilibrium pricing (typically Bertrand), calibrates that model to the available market data (such as prices and shares), and uses the model to predict post-merger price changes. Merger simulation is appealing because it allows the generation of quantitative predictions of post-merger price changes, and the evaluation of the robustness of those predictions.

Merger simulation is generally carried out in three stages. First, the own- and cross-price elasticity parameters of a demand system for the differentiated products in the market are estimated using pre-merger data. Secondly, these parameters are combined with pre-merger data on market shares and prices to estimate pre-merger marginal costs, and how market shares and demand elasticities change in response to

price changes based on the assumed competitive interactions in the market. The typical interaction assumption for differentiated products markets is Bertrand competition. Thirdly, the simulation is conducted, leading to the predicted price effects of a merger.

Following the change in the clearance threshold for business acquisitions in the *Commerce Act* in 2001from one of acquiring or strengthening a dominant position to a substantial lessening of competition, the Commission sought to use merger simulations based on the Bertrand oligopoly model. At first, this was in the form of the simple diversion ratio model devised by Shapiro,[1] which was used, for example, in the clearance application for the merger between the second and the third largest supermarket chains in early 2002.

Subsequently, the Commission developed its merger simulation capacity by building a Bertrand model (BERT) devised by Epstein and Rubinfeld.[2] In this model the demand function, rather than being estimated econometrically, is instead calibrated using a technique called Proportionality Calibrated AIDS (PCAIDS).

PCAIDS is an approximation to the AIDS (Almost Ideal Demand System) model proposed by Deaton and Muellbauer (1980), yet it requires much less data – no use is made of scanner data, or of data on pre-merger prices. The simplicity is achieved by placing restrictions on the structure of the AIDS model by assuming that a brand's market share lost as a result of a price increase is allocated to the other products in the market in proportion to their respective shares. PCAIDS is perhaps especially useful in the merger adjudication context, when there is limited data available, and when a less costly and less time-consuming analysis is needed.

The model requires only the following inputs:

- brand market shares (measured by revenue);
- market price elasticity of demand; and
- the own-price elasticity of one of the brands in the market.

Under the assumption of proportionality, Epstein and Rubinfeld show that once the industry elasticity and the own-price elasticity for a brand are known, then all of the other own-price and cross-price elasticities can be calibrated.

Two further options are to include estimates of post-merger efficiency gains by the merging parties, and nest parameters including brands that are judged to be closer substitutes than might be suggested by the market share-based approach**.**

Two important underlying assumptions of the model are that post-merger: (a) other existing competitors will not reposition their brands so as to compete more strongly with the merged entity, and hence impose a more effective competitive constraint; and (b) that there will be no competition from new entry.

The Commission's BERT merger simulation model was first used in the Cendant/Budget car rental clearance in late 2002. The proposed acquisition of Budget by Cendant would, in New Zealand, have

1 Carl Shapiro, "Mergers with Differentiated Products", *Antitrust*, spring 1996, pp. 23-30.

2 Roy Epstein and Daniel Rubinfeld, "Merger Simulation: A Simplified Approach with New Applications", *Antitrust Law Journal*, vol 69, 2001, pp. 883-919.

resulted in aggregation in the national markets for rental car services both for business customers (corporate market), and for leisure customers (leisure market). The Commission had competition concerns over the corporate market.

In the corporate market three major car rental companies—Avis (Cendant), Budget and Hertz— were competing with two smaller companies, Thrifty and National, with some other companies participating on an ad hoc basis. The Commission considered that the corporate rental car market could be characterised as being differentiated to some degree by factors such as branding, physical presence (or otherwise) of booths at airports, and geographical breadth of coverage. A key issue was whether a merger of two of the three major operators in this kind of differentiated market setting would be likely to lead to a sufficiently large price increase for there to be a substantial lessening of competition.

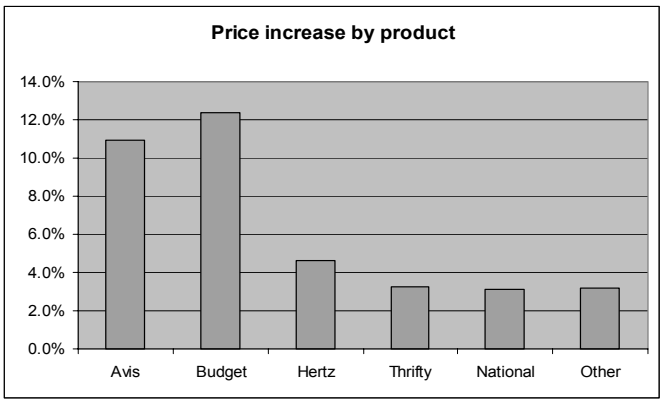
The Applicant estimated the market share for each market participant using the average number of cars registered with the Land Transport Safety Authority. However, fleet numbers vary throughout the year as most of the companies halve their fleets in winter, and there is probably no distinction between cars used for corporate services and those used for leisure services.

Instead, the Commission proposed to use corporate car rental service revenues as its primary measure of market share, and requested the market participants to provide it with this data. Hertz also estimated market shares for each market participant. Due to the complex nature of the market, the Commission decided to define a range for the market share of each participant.

There was no empirical evidence as to the price elasticity of market demand for corporate rental car services, or for own-price elasticities for individual rental car service brands, as was needed by the PCAIDS model. Consequently, the Commission had to make estimates of what they might be. It considered that the market demand curve was likely to be relatively inelastic, and assumed a figure of -0.7. In differentiated product markets, own-price elasticities seem typically to be in the range of -2 to -6. The Commission's view was that the corporate car rental services market was differentiated, but not to a high degree. Customers appeared generally to regard the brands of the three larger firms as being reasonably close substitutes. Given these considerations, and the uncertainty, a conservative range for Avis of -4, -6 and -8 was used.

The following graph shows the result of one model run, assuming an own-price elasticity of -6 for Avis. The pattern of post-merger price increases is consistent with the expected pattern, with the largest increases being for the two merging brands.

Figure 1.



The model was run with different combinations of elasticity values, and this produced a corresponding range of predicted, weighted-average, market price increases post-merger of between two and seven percent. The modelling results were reviewed by the experts employed by one of the parties, who suggested variations to the approach used.

However, the modelling results were not especially influential in this case. The Commission cleared the Application on the basis of the ability of other competitors to expand in the corporate market, which would constrain the ability of the merged entity to exercise unilateral market power.

2.3 Case Study 3: Modelling of Business Entry

In a recent clearance case, the Commission considered a proposed merger involving the two major nationwide providers of solid waste collection and disposal services. The Commission defined a number of collection and disposal functional levels, each separated into local or regional geographical markets.

Given the extent of the horizontal aggregation in some of these geographic markets, the scope for entry was an important consideration. To assist the Commission's entry analysis, business financial models of local entry into two relevant product markets (wheelie bin collection and front-end load collection) were provided by the Applicant, and by another industry operator who was opposing the merger.

The main components of the business models were: the capital costs of the solid waste collection truck; the number of bins served by the truck; the price of the service per bin collected at a specified frequency; the route distance travelled between each bin lift; and the cost of waste disposal at a disposal site. The Applicant used a five-year period as a timeframe for assessing the profitability of a new entry, while the other party's financial models evaluated the profitability of entry within a one year timeframe. The focus of both financial models was on discovering the degree of difficulty involved in making a business operation profitable**.**

The Commission discovered that the Applicant's model was particularly sensitive to changes in certain key parameters. For example, the model of business entry into the wheelie bin collection local market was sensitive to adjustments in the capital cost and service revenue assumptions, such that either raising the cost or reducing the revenue, both by relatively small amounts, led to significantly different outcomes, in terms of business profitability, compared to the initial modelling. Thus, while the intention of the model was to demonstrate that business entry was relatively easy, and likely to be profitable within a short timeframe, the reasonable adjustments made by the Commission suggested that the opposite could be the case.

The Commission considered that the success of entry in both models was dependent upon the entrant's ability to obtain a sufficiently large customer base to generate economies of scale and network density. While the Commission agreed that it was relatively easy to purchase the necessary equipment and begin trading, it was difficult for a new entrant to expand to such level of scale or density that it would be able to compete effectively with the incumbents.

In the front-end load collection local market, both parties presented an entry model that used a range of economies of density, expressed as an average distance travelled by a truck between two customers (kilometres per lift). The Applicant showed that an improvement in route density by a factor of three in its model provided a less than 15% reduction in total costs. On this basis it argued that as collection costs did not decline in proportion to route density, economies of density could not be considered as an entry barrier. In contrast, the other party's model of business entry into the same market demonstrated that route density

significantly affects the level of collection costs. It, therefore, argued to the contrary that economies of density existed, and represented a significant entry barrier.

The Commission considered that it could not rely on the results obtained from these entry models for a number of reasons: the conflicting results of the models; their sensitivity to key parameter changes; the inability to have a review by each party of the other's modelling assumptions because of the confidentiality of the data provided; and the impracticality of direct comparison between the two modelling approaches. Rather it had to consider the likelihood, extent and timeliness of entry on the basis of a factual inquiry.

The Commission considered that successful entry would rely strongly on both the economies of scale and of network density. However, since the economies of scale in the front-end load collection market were likely to be limited by the maximum volume of waste able to be loaded into a truck on a collection route prior to disposal, the key element was more likely to be the extent of the economies of density.

The Commission also considered that the Applicant's entry models did not correspond to the real life situation faced by a new entrant into this market, since if the healthy profits it showed were so easily obtainable, then entry into front-end load collection market would have been much more frequent than had actually occurred.

2.4 Case Study 4: Econometric Modelling

The Commission is able to authorise business acquisitions or business arrangements that lead to a substantial loss of competition, if it can be shown that a net public benefit would flow from the acquisition or arrangement. The following case study, while relating to a type of business arrangement rather than to a merger, shows what can be done in the authorisation context.

In 2006 the Commission considered an application by the New Zealand Rugby Football Union (NZRU) for authorisation of certain sports league restrictions of the kind prohibited by ss 27 and 29 of the Act. The main restriction proposed was the introduction of a total payroll cap for players in each premier division union competing in the National Provincial Championship, the country's premier domestic rugby competition (played annually between August and October between regionally-based unions). A secondary restriction involved a modification (actually, a relaxation) of the player transfer regulations that had previously been authorised.

A key argument advanced by the NZRU in support of authorisation was that the salary cap would lead to a more even distribution of rugby player talent between the unions, since it would limit the ability of the wealthier ones to capture all of the best players by paying higher salaries. This, in turn, would—by maintaining a greater competitive balance between the unions, and hence promoting the uncertainty of outcomes in games and in the competition as a whole—increase the enjoyment of the game for the public. The proposition that greater uncertainty of outcome leads to enhanced spectator enjoyment has become known as the uncertainty of outcome hypothesis (UOH) in the sports economics literature.

In many professional sports leagues around the world, league administrators have introduced a myriad of rules and labour market restrictions, including transfer regulations and payroll caps. Many of these restrictions have led to antitrust cases being taken against administrators. League operators typically defend such restrictions by appealing to the UOH. The argument typically rests on three core claims:

- inequality of resources between teams leads to unbalanced competition;
- fan interest declines, and league revenues fall, when contest outcomes become less uncertain; and

- talent redistribution mechanisms produce more uncertainty of outcome.

The evidence cited by the NZRU in support of its Application for authorisation appealed to the UOH. There was anecdotal evidence from league operators in Australia, who had implemented similar redistribution policies; opinions from broadcasters; and expert economic testimony. However, no robust, New Zealand-rugby-based, empirical evidence was offered.

The UOH has frequently been tested in the sports economics literature, in respect of a range of sports codes, with most studies focusing on at-match spectators. The results have been mixed: some studies offered clear support, some weak support, and others contradicted the UOH altogether. Two recent New Zealand studies, one of which focused on spectator demand for National Provincial Championship matches, found very little evidence that uncertainty of outcome had any effect on match attendance. However, the participation of star players was found to be an important determinant of spectator demand.

The Commission extended these studies on spectator demand by employing various new measures of outcome uncertainty. Even with the use of alternative proxies for uncertainty, the Commission's modelling results were consistent with those of the previous two studies, in that the claimed link between evenness of competition and fan enjoyment (match attendances) seemed tenuous. These findings undermined a key argument underpinning the NZRU's rationale for seeking to introduce the salary cap. Even if this were successful in distributing talent more evenly, it was not obvious that the claimed benefits would flow.

Very little empirical work had been done anywhere to evaluate the impact of competitive balance on television viewer demand for sport. Yet television viewers generally comprise a significantly greater component of the total demand for games than do match spectators. For example, in 2004, the total attendance at National Provincial Championship rugby matches was only about 7% of the total television audience.

Consequently, the Commission undertook its own study to explore the determinants of television viewer demand. It estimated econometrically a demand equation for televised National Provincial Championship matches, where television demand by game was specified as a function of several alternative measures of outcome uncertainty, and of several control variables. These variables were constructed using programme audience ratings data, historical match results, broadcast schedules for rugby and other sporting events, household income and provincial demographics, for the four seasons in the period 2001-04.

Data collection was relatively straightforward. The NZRU supplied the Commission with data on television ratings (gathered from free-to-air and pay-TV networks), match results and round-robin rosters, crowd attendances, and accounting information from each of the unions. Broadcast scheduling information was obtained from three separate television networks, and household income and demographics data were freely sourced from Statistics New Zealand.

Like the match attendances study, this television viewer demand study found little support for the UOH. All of the measures of outcome uncertainty were found to be statistically insignificant. Instead, match quality (in particular, the involvement of star players) was found to be a significant determinant of the size of television audiences for individual matches. Importantly, this factor operated with diminishing returns, so that a team containing several star players would on average get a relatively small further gain in television audience from employing one more star player.

All econometric modelling on this case was carried out in-house by the Commission's economists. However, the Commission had both its studies reviewed by an independent academic econometrician prior

to releasing its findings, and the studies were also scrutinised by the NZRU's own economic experts. Comments provided by these experts were taken into account when the Commission finalised its model results.

In making its final determination on the Application, the Commission accepted that the NZRU's proposed polices would raise the average quality of each match as star players would be more evenly distributed throughout the league. Diminishing returns means that when a star player transfers from a strong team to a weaker team, the audience gain by the later tends on average to be greater than the audience lost by the former. This means that player redistribution encouraged by the salary cap would likely increase the quality, and therefore drawing power, of the league as a whole, on average. The total demand for matches would tend to increase, which would in turn have flow-on benefits. Although the Commission rejected the UOH, it was persuaded by the new evidence from the modelling exercise. Based on this and other evidence, the Commission authorised the NZRU's proposed salary cap.

3. The Commission's Approach to Modelling

The Commission's experience with modelling in these and other cases (including those outside of the mergers sphere) leads it to consider that models—both of the simulation type and those involving quantitative or econometric approaches—have the potential to be useful in that they focus attention on key assumptions, such as those regarding the characteristics of the market, and the behaviour of buyers and suppliers within it. There is also value in attempting to empirically test and verify the qualitative evidence and claims presented by interested parties. The *prima facie* acceptance of propositions that theoretically seem possible, or have the ring of plausibility, can have the potential to lead to incorrect conclusions.

The Commission's considers that modelling work can provide support to its deliberations in the following ways:

- it can focus attention on coherent arguments relating to the issue, and enhancing an understanding of the problem at hand;
- it can provide a robust framework to enable a discussion of the possible consequences of various possible decisions;
- it can make transparent the values of the key parameters and assumptions in the deliberations;
- it can illustrate the possible effects of different choices of the key parameters and assumptions; and
- it can produce quantitative estimates of the results of a given transaction or arrangement.

The Commission uses modelling to aid, but not to supplant, the exercise of its judgment. Judgment is required because models are not in themselves able to produce 'proof' of certain market outcomes (such as a substantial lessening of competition from a merger). An effective model will only ever be at best a guide to reality, and to the consequences of proposed changes, not a reproduction of it. Therefore, the Commission aims, in each case, to balance modelling results and predictions against its qualitative analysis and judgement in the context of the issue before it.

However, the Commission considers that all models expose it to some degree of risk, in terms of loss of reputation or court challenge caused by errors, regardless of their level of sophistication. This is because all are susceptible to challenge by virtue of the fact that they attempt to depict a portion of reality in a simplified way, and for some because of the risk of their complexity leading to numerical and other

errors. Also, econometric studies are rarely definitive, and alternative specifications can produce plausible results.

The models that pose the greatest risk are those that are complex, either because of their technical or theoretical nature, such that specialist knowledge is needed to understand them, or because they are implemented using detailed numerical or computer-based analysis. This risk is heightened in various situations: first, where the model has been developed specifically for the project at hand, rather than being a 'generic' model that has been tested previously; secondly, where the project is subject to tight timeframes that leave little time for testing and checking to be done, and for quality control measures to be implemented; and thirdly, where the data used in the model provided by a party is considered to be confidential, which may prevent reviews by other interested parties.

An uncontrolled approach to modelling can result in poorly structured and poorly documented models, with data and assumptions that have not been validated, inadequate version control, little or no independent review, and consequent risk of error. Quality control of models is therefore an essential part of the Commission's management of risk, and time must be set aside in the model development process for this to be undertaken. For these reasons, the Commission has recently established a quality control policy for its major modelling work. This policy was introduced to minimise the risk of model error at reasonable cost, and to ensure that the models the Commission relies upon in its adjudicative, enforcement and regulatory decision-making are robust and defensible.

Commission models that are considered critical to Commission decision-making are subject to quality controls and accountability reporting. Quality controls cover all phases of model development, from initial needs assessment, to designing, building, validating, authorising and maintaining a model. The controls aim to provide reasonable assurance as to the integrity and reliability of model outputs. Models developed for the Commission by external consultants are expected to meet the same standards.

Accountability reporting means that the modellers are accountable, through the project team and project manager, to the project Steering Group. The project Steering Group is in turn accountable to the relevant Division of the Commission. By these means, there is greater assurance as to the reliability of modelling results, such that the Commission is able to use them with greater confidence. Decisions about how much reliance to place on models in particular cases can be made on an informed basis.

A level of modelling/quantitative expertise has been built up within the Commission. Much of the Commission's work in this area is done in-house. The Commission often subjects its internal modelling/quantitative work to peer review by external experts, including those employed by external parties. It also has the capability often to assess the models/quantitative work provided by external parties.

UNITED KINGDOM

1. Introduction

This paper focuses on the experience of the Competition Commission (CC) when analysing mergers. The CC conducts in depth or Phase II mergers that are referred to it by the Office of Fair Trading (OFT), the latter having responsibility for reviewing markets and identifying mergers which it believes, having carried out a Phase I review, may be expected to result in an SLC. As a Phase II body many of the merger cases analysed by the CC are complex.

The remainder of this paper is in the following parts:

1. The role of the UK Competition Commission in merger control
2. Use of large data sets
3. Surveys
4. Technical expertise: understanding the sector
5. External experts

2. The role of the UK Competition Commission in merger control

In this part are provided factual details about the CC as an institution, including workload, role and experiences of decision makers and staff as well as the statutory regime in which the CC operates. These are intended to put the replies to the specific topics identified for discussion, and which are discussed in the following parts, into context.

The CC is the decision taker in respect of the competition analysis and the choice of remedy, if appropriate, for those merger cases that are referred to it by the OFT. If the CC concludes that remedies are appropriate, it is responsible for securing these (either by acceptance from the parties of undertakings or by it requiring remedial action by Order). Whether undertakings or orders are used, the OFT has responsibility for monitoring the remedies and securing their enforcement.

The CC carries out approximately 10 in-depth Phase II investigations per year, which, as explained, have been referred to it by the OFT.[1]

The CC is required to consider (a) whether the merger has given rise to a relevant merger situation (a jurisdiction test) and (b) whether the merger is expected or has given rise to an SLC. If it does conclude that an SLC is expected, it must then consider whether remedies are appropriate and if so, identify what

[1] In specified and limited circumstances the Secretary of State may intervene when he considers a public interest consideration arises. However, such interventions are rare (since the Enterprise Act came into effect (2003) only one such reference involving a public interest consideration has been made *BSkyB and ITV* (2007 ongoing).

remedial action it should take. There is also the ability for the CC to consider recommending others to take remedial action though this is a measure less frequently appropriate in merger cases than the CC taking direct action.

The CC is required to investigate and publish its report within 24 weeks from the date of the reference being made. This reporting period can be extended by a further eight weeks if it considers there are special reasons why the report cannot be published within the statutory period.[2] Apart from these limited circumstances, the Enterprise Act 2002 imposes an absolute constraint on the time available for analysis. Within the reporting period, the CC must consult the merging parties on its proposed decisions (both in respect of its provisional SLC decision and its proposed remedies). It does so by the publication of Provisional Findings (CC Rules of Procedure require it to allow a 21 day consultation period) and a notice of possible remedies. The requirement to publish both these documents and the final report (both also lead it to consider requests for excisions of sensitive information) within the reporting period inevitably has the effect of reducing the time available in which to complete the analysis including taking into account main party and other interested person's views. The CC aims to publish its provisional findings within 16 weeks of the reference being made. When allowing for time in which to receive evidence and, if appropriate to receive the results of any surveys commissioned, time available for analysis is therefore actually short—typically just two or three weeks following receipt of information requested soon after the start of the inquiry.

The CC has powers enabling it to request information from both the merging parties and others and is able to impose a financial penalty if the information is not supplied by the required date without reasonable excuse.[3] Non-compliance by a merging party would also enable the CC to suspend the statutory reporting period. With the knowledge that the CC has these powers, parties tend to co-operate with requests made by the CC so that it seldom has to exercise these powers although they may fall behind the deadlines set for receipt of the information. To date the CC has not imposed a penalty nor exercised its power to suspend the timetable.

These factors inevitably impose a constraint on the analysis the CC can undertake and create an imperative for very rapid understanding of industry circumstances at the start of the inquiry. As explained below, there is much to be gained by investing in preparatory work at the start of a case. However, the CC takes too long 'coming up to speed' at the start, and data requests are delayed, the time available for analysis can be badly squeezed.

In the following narrative mention is made of members and of staff. The former are commissioners of which there are approximately 50. In any one merger inquiry a group of 3 to 6 members is appointed by the Chairman of the CC and as a Group these make the decision on behalf of the CC. With the exception of the Chairman and Deputies these are part-time members who attend the CC according to the needs of the particular case. Groups tend to be chaired either by the Chairman or one of the three Deputy Chairman of the CC. The Group is involved in all stages of an inquiry, including its design, and commissions works, holds hearings and makes, as explained, the statutory decisions. The full time staff support the group in their work, conducting much of the analysis and also holding some of the hearings.

The CC has recently carried out an internal review which considered, *inter alia*, making better use of data and analytical techniques in its cases. As part of this process, the CC benchmarked itself against other

2 Section 39(3) Enterprise Act 2002.

3 Section 110 Enterprise Act 2002.

competition authorities and organisations with similar requirements to analyse evidence in complex investigations.[4] Broadly speaking, the CC found that compared to other authorities:

- The CC makes more use of sophisticated quantitative techniques than most of the organisations examined and is perhaps comparable to DG COMP in this regard but a little behind the two US agencies.

- The CC makes more use of surveys than almost any other authority.

- The CC seems to make less use of large data sets than the US agencies have done in some high-profile cases. In particular, it has historically made relatively little use of 'raw' datasets and primary evidence extracted from parties to inquiries (preferring to rely on evidence submitted by parties specifically for the inquiry in response to general questions).

Overall, the review suggested that the CC was performing well but the CC identified the importance of sharpening up its investigative techniques and of continuing to increase its use of quantitative, especially econometric, analysis; above all to make more use of primary evidence, particularly data sets, when the circumstances of the cases allow for that.

3. Use of large data sets

The CC has not made use of really large data sets in merger analysis[5], such as those derived from scanner data. In part, this is because of the mix of cases that have been referred to it in recent years. Full mergers (or the sale of brands) between rival manufacturers of consumer goods often take place on an international or global scale, so as a national competition authority within the EU the CC will see fewer such cases than would the European Commission or the US agencies. However, as noted in the introduction, this is an area that our recent internal review has identified as one in which the CC could be more active.

In a recent merger case involving firms selling gambling products, the CC analysed a data set of over 800,000 customer profiles and data. The details of the analysis conducted are published in an appendix to the Provisional Findings of the inquiry[6]. The experience of dealing with this data set within the context of a merger case highlighted the need for sufficient computational capacity in the IT systems available to staff and in-house expertise to handle the data itself with statistical packages. However the size of the dataset per se did not appear to raise specific issues in this case.

In another recent case, concerning the supply of eggs to retailers, the CC analysed a data set covering weekly transactions between two suppliers, and 475 customers, covering 1,549 individual Stock Keeping Units (SKU's) over a period of 5 years. This data was used to produce various analyses including market definition, buyer power and critical loss analysis and was extremely helpful to the Group in its understanding of the industry.[7]

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4 The CC spoke to representatives of the DoJ and FTC (USA), DG Comp and OFT.

5 In our two-year market investigations, we have the time and resources for working with very large data sets and have frequently done so.

6 *Sportech and Vernons* 2007 http://www.competition-commission.org.uk/inquiries/ref2007/sportech/provisional_findings.htm.

7 *Stonegate Farmers Ltd and Deans Food Group Ltd* (2007 ongoing) http://www.competition-commission.org.uk/rep_pub/reports/2007/524stonegate.htm.

In a recent market inquiry the CC conducted a review of emails (the CC received approximately 180,000 documents in total) from a number of main parties. The results were informative, and the information could not have been obtained in another way. However, there are inevitably time and cost implications associated with such an exercise, the former may, in particular, prevent the use of such reviews in merger inquiries.

4. Surveys

As noted earlier, the CC believes it makes more use of surveys than almost any other competition authority. In part, this might reflect the fact that as a second-stage authority it has time to conduct surveys. The CC published a short discussion paper on its use of surveys in the merger control process, in January 2007[8]. Table 1 is taken from that paper and summarises customer surveys undertaken in CC merger inquiries under the Enterprise Act until the end of 2006. In this period, the CC completed 31 merger inquiries excluding cancelled references (10 in 2004, 13 in 2005 and 8 in 2006) and 14 (45 per cent) used a survey.

Two considerations enter into the decision of the CC to commission a survey of customers or suppliers[9]. The first is whether there are a large number of customers (or suppliers) in the market, the views of whom it may be otherwise hard to canvass representatively. The second is whether it appears likely that that the responses to a survey would add to other data sources. For example, in one merger case, it asked shoppers directly for their next-best alternative supermarket by interviewing them at over 50 locations that were potentially problematic[10]. However, in another case[11] (a merger of cinemas) involving local markets, the type of customer changed so dramatically from week to week that it was not feasible to obtain a representative sample within the timeframe of the inquiry and so the CC did not survey them.

The CC commissions qualitative studies (such as focus groups or in-depth interviews) to explore the breadth of customers' decision-making behaviour through open-ended questioning. In contrast, surveys quantify the incidence of particular behaviours and opinions using questions that will have mostly predefined responses. Ideally, a qualitative study will precede a survey and so will inform the wording of the survey questionnaire. However, it is not possible to adopt such a sequential approach in merger cases. Qualitative studies will only be commissioned to elucidate the purchasing decision process (for example to understand the details of business negotiations) and to confirm the set of products that should be considered the closest substitutes for a product under investigation. Generally, the CC sees qualitative studies as one element in a spectrum of mechanisms for gathering views of industry participants and customers. The rest of this section considers only quantitative surveys.

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8 http://www.competition-commission.org.uk/our_role/analysis/cc_surveys_2007.pdf. A revised version of this is shortly to be published in the ECLR. Note that the detailed views expressed in this paper are those of the authors, not necessarily the CC; and the views expressed here in this CC submission should not necessarily be ascribed to the authors of the discussion paper.

9 Supplier surveys have been undertaken in market inquiries into supermarkets. There are many different types of supplier because of the wide range of products sold and each type of supplier could have different views. See for example, Groceries market, http://www.competition-commission.org.uk/rep_pub/reports/2003/fulltext/481a6 and http://www.competition-commission.org.uk/inquiries/ref2006/grocery/pdf/uk_grocery_market.pdf.

10 *Somerfield plc and Wm Morrison Supermarkets plc* 205 http://www.competition-commission.org.uk/inquiries/ref2005/somerfield/pdf/consumer_survey_by_nop.pdf.

11 *Vue Entertainment Holdings (UK) Limited and A3 Cinema Limited* 2006 http://www.competition-commission.org.uk/rep_pub/reports/2006/508vue.htm.

Table 2. The CC's use of customer surveys in merger control under the 2002 Enterprise Act until the end of 2006

				Survey Respondents				
Merger inquiry	***Year*** [a]	***Sector***	***Finding***	***Number***	***Type***	***Type(s) of survey***	***Mode*** [b]	***Response rate*** [c]
Stena/P&O	2004	Ferries	SLC	400	Businesses	Qualitative & quantitative	Telephone	16%
Firstgroup/Scotrail	2004	Rail transport	SLC	1,404	Consumers	Quantitative	Telephone	Not reported
Archant/Independent News & Media	2004	Local newspapers	No SLC	579	Businesses	Qualitative & quantitative	Telephone	Not reported
National Express/Greater Anglia	2004	Bus and rail transport	No SLC	1,212 [d]	Consumers	Quantitative	Self-completion [e]	Not reported
Emap/ABI	2005	Business information	SLC	480	Businesses	Qualitative & quantitative	Telephone	Not reported
SDEL/Coors	2005	Beer pumps	SLC	501	Businesses	Quantitative	Telephone	Not reported
Napier Brown/James Budgett	2005	Sugar	No SLC	218	Businesses	Quantitative	Telephone	25%
Francisco Partners/G International	2005	Electronic data interchange	No SLC	316	Businesses	Quantitative	Self-completion [h]	10%
Somerfield/Morrisons	2005	Supermarkets	SLC	5,444	Consumers	Quantitative	Face-to-face	Not reported
Bucher Industries/Johnston Sweepers	2005	Road sweepers	No SLC	100 [f]	Businesses	Qualitative & quantitative [g]	Telephone	26%
British Salt/New Cheshire Salt	2005	Salt	No SLC	516	Businesses	Quantitative	Telephone	Not reported
National Express/Thameslink	2005	Rail transport	No SLC	1,177	Consumers	Quantitative	Self-completion [e]	Not reported
Waterstone's/Ottakar's	2006	Booksellers	No SLC	2,801 [i]	Consumers	Quantitative	Face-to-face	Not reported
CBS Private Capital/Hampden Agencies	2006	Lloyd's Members' agents	No SLC	803 [j]	Consumers	Quantitative	Telephone and self-completion	46%

[a] Year CC report published. Merger inquiries given in chronological order by report date.
[b] Mode for quantitative survey as all qualitative surveys are either telephone or face-to-face. The qualitative survey in Emap/ABI was conducted in-house by the CC.
[c] For quantitative survey.
[d] 1,212 original respondents and 832 follow-ups.
[e] On-board with responses collected by interviewer before passenger disembarked.
[f] 100 quantitative interviews and 22 qualitative interviews.
[g] Qualitative survey was a follow-up to the quantitative survey.
[h] Online.
[i] 2,454 customers who purchased books and 347 who did not.
[j] 84 telephone, 648 postal self-completion and 71 on-line self-completion.

Notes:

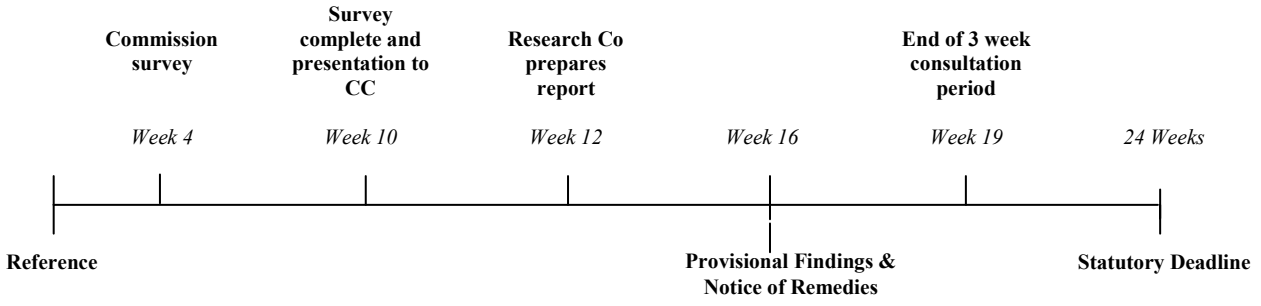
1. The CC's customer questionnaire in DS Smith/Linpac (2004), in which the CC found no SLC, is excluded from the table. The CC itself surveyed 234 customers (response rate 48%) in the corrugated cardboard sheet sector with a quantitative, self-completion questionnaire.
2. The CC sometimes sends postal questionnaires to many customers (dozens or even hundreds) in merger inquiries. These are excluded from the table because (i) they typically are not based on a sample of the population of customers but sent to as many of the population of customers as the CC can identify, (ii) they typically ask more detailed questions than can be accommodated in a large-scale survey, and (iii) they typically also ask for data and/or quantitative evidence that cannot be extracted in a survey.

The CC usually commissions market research organizations to undertake surveys and only occasionally conducts surveys itself. Outsourced surveys take advantage of the interviewing skills, interviewing resources, data capture and data processing resources, and general research professionalism that market research organizations can offer[1]. The CC will only conduct an in-house survey if it has the resources to do so. For example, in the recent merger of steel-drum manufacturers[2], referred to below, there were a modest number of customers and our questions were straightforward and limited in number so that the CC could invite all customers to complete a survey by mail or Internet[3] and process the results in-house. Whichever route the CC chooses, the CC uses the expertise of full time statisticians who are members of its staff. Together with the economists assigned to the case, they begin to design the survey from the time the case is referred.

Mobilising market research firms to carry out survey work and analysing the results within merger control timescales is challenging. In particular, the CC is aware from its experience that it is very easy to ask meaningless and ambiguous questions, and hard to design questions that will provide useful information. If it decides that a survey is likely to be useful, at the start of an inquiry, therefore, the CC team needs very rapidly to learn enough about the industry to construct a sensible questionnaire (and to test it with industry players).

Table 2 illustrates the various stages involved when conducting a survey against the statutory timetable. In general it takes two weeks for staff to be in the position to begin to shape the survey and instruct the survey company and a further two weeks before the survey work can be conducted. In this second period, the survey company carries out preparatory work and the parties have the opportunity to comment on the survey questions. Approximately at week 5 the survey is initially tested (both the questions and the mode of data collection is tested). Mergers in industries in which the products or market relationships are complex therefore pose a particular challenge—if the CC cannot understand enough about the industry to finalise a survey within the first few weeks of the inquiry, then it will be too late to run the survey at all. The CC aims for the results of the survey to be available both to the Group and to the main parties prior to the CC's publication of provisional findings. Generally the Group will receive a presentation of the survey results prior to the main party hearing though typically it will not receive a copy of the report till after the hearing. The parties will always have the opportunity to comment on the survey results in writing either prior to or after the provisional findings. The arrival of the results as soon as possible is therefore to everyone's benefit, thus revealing the tension between allowing sufficient time for preparation and fieldwork and sufficient for analysis of results.

Figure 1. Timeframe: CC merger reference



1 The CC's market research suppliers conform to the standards and code of conduct of the British Market Research Society.

2 *Greif Inc and Blagden Packaging Group* 2007.

3 http://www.competition-commission.org.uk/inquiries/ref2007/blagden/pdf/customer_survey.pdf.

The surveys are generally self-completion questionnaires, submitted by mail or online, or computer-aided telephone or face-to-face interviews. Each mode of data collection has its own pros and cons (eg in terms of costs, time, coverage). For example, face-to-face surveys tend to have higher response rates than self-completion surveys. Conversely, face-to-face surveys tend to take longer and cost more. However our key considerations are response bias and response rate[4]. Within the practical constraints of each case the CC selects the mode or modes that are most likely to have low response bias and high response rate in order to minimize bias in, and maximize the precision of, our quantitative inferences. So, for example, to investigate competition in a merger of book retailers, the CC reduced selection bias by interviewing customers at different times of the day, and different days of the week, as they completed their book purchases[5].

To help ensure its surveys elicit meaningful answers to less-than-perfectly-tuned questions, the CC tries to get respondents to re-live their purchasing decisions. This is done by asking questions in stages that correspond to a well-known model[6] of a decision process: gathering intelligence; designing options; making a choice; reviewing the choice.

This four-stage framework provides a way of ordering questions that involves asking first about revealed behaviour and then about stated behaviour. Asking first about revealed behaviour reminds respondents of relevant facts, experiences and their previous decisions, so that responses to subsequent hypothetical questions about future decisions are likely to be better informed. In particular, the CC tries to ensure respondents' stated behaviours (eg their price sensitivity or effect of a merger on their behaviour) are internally consistent with their revealed behaviour, in order to mitigate concerns arising from virtuous responses (telling the interviewer what the respondent believes to be the 'right' answer, instead of what the respondent really believes) or misunderstanding hypothetical questions.

For example, in the bookstore interviews mentioned above, interviewers asked first about previous purchases and the motives for the current choice of bookstore and books, and then asked about alternatives if the parties' retail offer had been worse. The survey showed that the range of book titles and the convenience of the bookstore's location were the most important non-price factors to customers and that their closest alternative bookstore was in the same shopping location. It also showed that respondents rated the merging parties similarly on range, quality of the store environment and quality of service, but slightly worse or no different on the price of books.

In summary, the CC has often found customer surveys to be useful additions to the evidence base in merger cases. There are three broad caveats that are perhaps worth mentioning.

First, the purpose of a survey is to elicit facts about behaviour. In general, the CC has found that it is not a good idea to ask customers whether they approve or disapprove of a merger, or what they expect to happen to prices post-merger. Their expertise lies in knowledge of the products and of their own behaviour, not in merger simulation. The CC generally avoids asking customers whether they support the proposed merger.

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4 The response rate is the proportion of customers surveyed who answer the survey questions. Response bias occurs when a particular category of customers responds more often than would be expected from their incidence among all customers.

5 *HMV Group plc/Waterstone's plc and Ottakar's plc* 2006 http://www.competition-commission.org.uk/inquiries/ref2005/hmv/pdf/gfk_nop_consumer_report.pdf.

6 The empirical data for this model originally came from observing the course of specific decision-making episodes in organizations. We have applied it to both business and consumer purchasing decisions.

Secondly, all questions must be vetted according to whether answers are likely to be meaningful. Because in a survey, the CC is able in principle to ask any question it likes, the temptation is there to ask questions which precisely address the points of most interest. This temptation must be resisted if those questions are unlikely to elicit meaningful responses. In particular, it is very tempting to ask a series of SSNIP questions for market definition, widening a set of hypothetical markets by considering substitution from a hypothetical monopolist. If the answers to such questions could be believed, they would be of critical relevance in most cases. Sadly, the hypothetical situation that customers are asked to imagine is likely to be so far from their experience that the responses will be meaningless. A survey will not generally provide an opportunity to understand situations that are completely outside historical experience or the domain of respondents (and in this sense, a survey will add less to other sources of evidence than might be imagined).

Occasionally, it becomes clear with hindsight that responses to a hypothetical question are unreliable. The case of a merger of two companies offering business information services provides an example. The subscribers to these services were interviewed and, although they could recall past purchasing behaviour, a disturbingly high proportion[7] were unable to say how their businesses would have responded to a price increase. Many subscribers would probably have had to consult a number of individuals, including users of the information, to make the corporate decision to renew the subscription to these services. Such subscribers would not have been able to say how their colleagues would have responded to a hypothetical situation. It also became clear, retrospectively, that a substantial proportion of subscribers had no plans to renew their subscriptions, further complicating the interpretation of responses in this case.

Finally, the survey must always be considered to be only one piece of evidence, not necessarily more valid than other pieces of evidence, and subject to uncertainties of measurement and interpretation. Parties to CC inquiries occasionally suggest that because the CC itself commissioned and designed the survey, it should somehow feature more strongly in the CC's thinking than other pieces of evidence (and that it should over-ride pieces of evidence it contradicts). This is not correct. The fact that it is "the CC's own survey" (as the parties' submissions will invariably describe it, when it supports their case) does not raise it above other forms of evidence. In several of the cases cited above, the CC took decisions that were not directly supported by the survey evidence, when other forms of evidence contradicted the survey and were judged to be more reliable. Similarly there are occasions when the results of the survey seem to contradict other evidence received and the basis on which the CC has reached its conclusions. Not surprisingly parties will seize the opportunity to argue that the CC must rely on its own survey. Again, the CC takes the view that it needs to weigh up all the evidence available to it when forming a view. But it is also not uncommon for surveys to provide conflicting evidence (supporting both the Commission and the parties' views) and in this circumstance the approach is also to consider all the evidence rather than to ignore some and rely on other. The contention that there is no particular pecking order for evidence would appear to be supported by the Competition Appeals Tribunal[8].

Despite the possible pitfalls, the CC continues to find significant value in conducting surveys in its merger inquiries. In particular, they are a useful way to understand customers' perspective, and to test the evidence of the merging parties, particularly when there is little customer representation.

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7 See EMAP plc and ABI Building Data Ltd. http://www.competitioncommission.org.uk/rep_pub/reports/2005/fulltext/497.pdf. Page 26 notes that a substantial proportion of customers (34 per cent of one company and 26 per cent of the other) did not know, or were not sure what their response would be to a price increase.

8 *Aberdeen Journals Ltd and the OFT* [2003] CAT 11, paragraph 126.

5. Technical expertise: Mergers involving complex products and services

For the most part, the CC's approach to dealing with industries or questions requiring technical expertise (such as technology markets) does not differ from its approach to 'normal' mergers where complexities can also arise, calling upon specialist skills or expertise. As a second stage authority dealing with a relatively small number of in-depth cases, there is little opportunity for the CC to develop industry expertise through repeated casework in any sector[9]. Thus, every merger case presents a challenge to move up a learning curve rapidly, so that meaningful questions and data requests can be put to parties within the first two weeks of the CC's involvement. It is not necessarily the case that sectors involving complex technology are the hardest to understand. In industries with the most basic products, a failure fully to understand the details of—for example—pricing arrangements or transport costs, could critically hamper the inquiry.

By way of illustration, the CC has since 2004 considered mergers involving, among many other things:

- Confocal and multiphoton electron microscope systems[10];
- monomethylamine (MMA), dimethyl-amine (DMA), trimethylamine (TMA) and derivatives such as methyldiethanolamine (MDEA)[11]; and
- electronic data interchange value-added networks[12].

These cases required the CC to obtain relevant facts on highly technical matters, but none of the three caused any particular difficulties. In this same period, there were just two merger cases in which the CC had such difficulty in obtaining important facts about the industry in a timely fashion that it reversed its provisional findings (from SLC to clearance). One was a merger of salt producers, in which the parties had not fully explained the effect of high energy prices on their business, by the time provisional findings were published[13]. The other was a merger of manufacturers of steel drums, in which the CC was alerted to the imminent entry of a significant new producer just a few days before publication of its provisional findings[14]. Neither of these sets of products is technically complex, nor are the processes involved particularly hard to understand. The CC's conclusion is that even simple industries can be inadequately understood to the detriment of the inquiry. The fact that so few of the CC's cases have (so far) been

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9 There are a few broad sectors—such as groceries, financial services or energy—in which the volume of CC cases has been sufficient to maintain some expertise. But it is unlikely ever to be appropriate for CC staff to specialise in particular sectors, as might happen at an integrated competition authority, because case work even in these sectors is so variable and unpredictable. Several years might pass without an energy sector merger, for example.

10 *Carl Zeiss Jena Embh and Bio-Rad Laboratories Inc* 2004 http://www.competition-commission.org.uk/inquiries/completed/2004/zeiss/index.htm

11 *Taminco N.V. and Air Products (Chemicals) Teeside Limited* 2004 http://www.competition-commission.org.uk/inquiries/completed/2004/taminco/index.htm

12 *Francisco Partners LP and G International Inc* 2005 http://www.competition-commission.org.uk/rep_pub/reports/2005/502francisco.htm

13 *British Salt and New Cheshire Salt Works* 2005 http://www.competition-commission.org.uk/inquiries/ref2005/britishsalt/index.htm

14 *Greif Inc and Blagden Packaging* 2007 http://www.competition-commission.org.uk/inquiries/ref2007/blagden/index.htm

appealed (and none causing the CC to change its findings) suggests that the methods and processes engaged by the CC assist to overcome these difficulties.

In all sectors—not just technologically advanced ones—therefore, the priority at the start of the investigation is to understand the business as fully as possible. There is no simple answer to how this can be achieved, but elements of the CC's strategy include:

- Considering the OFT's Phase I analysis, discussing with them issues that arose in Phase I and identifying those issues that the OFT considered merited further attention.

- Maintaining a team of dedicated 'business advisers' on the staff, whose role it is fully to understand the industry in question (including the products, technical processes and relevant regulations). These experts have a wide range of backgrounds, mostly involving industry experience and in some cases MBAs. They advise the commissioners, and other staff such as expert economists.

- When appropriate, appointing members to the Group with relevant expertise. There is naturally a need to avoid conflicts of interest, but on a number of occasions it has been possible to appoint a member who has in the past had some connection with the industry. Indeed in some other types of inquiries conducted by the CC the CC is required to appoint a member with such expertise. While the benefits of using members with such previous experience are readily apparent it is important that the member shares his or her experience with the other members and staff.

- A data request on the first day of the CC's investigation (the 'first day letter') seeking material providing background on the industry, the companies involved and the rationale for the deal, with a very quick required response time. The material sought is intended to be all 'off the shelf'—that is, documents that the parties should have close to hand that can be passed over without a commentary by the parties or their advisors.

- An early meeting with the parties and their advisers to discuss possible data requests. For economic analysis, it is particularly useful to use the meeting to understand the process of price formation: for example whether products are sold at list prices, through tenders or whatever. The CC also seeks to understand the data sources that the companies might be able to draw upon—the structure of their sales database, for example. The meeting works best when the staff from the merging firms with hands-on operational responsibilities, attend. The CC is therefore considering ways in which this can be encouraged—for example, holding the meeting on the merging parties' premises instead of at the CC's offices.

- Site visits (by members and staff) to production or sales locations, to see the products being manufactured or used. These are arranged by the parties themselves and are viewed as an opportunity for the parties to show aspects of their business on site and also for the parties to meet on a less formal basis with the members and staff. These visits tend to be very instructive and both parties and the CC consider they should be continued with.

- Reviewing academic literature and earlier cases of UK and overseas competition or regulatory authorities.

- Seeking written or oral evidence from a wide variety of industry participants (suppliers, competitors and customers) and experts in the first few weeks. This can also provide a helpful

check on the arguments advanced by main parties, although such evidence might of course be biased[15].

Using these various methods to collate information, the CC develops its understanding of the relevant business and with this develops Theories of Harm pertinent to the merger analysis. Further the CC's processes and procedures enable others to provide views on the CC's understanding and importantly, to correct any misunderstandings. There are a number of relevant features of the CC's process and procedures:

- Draft versions of questionnaires (generally financial and economic) are shown to intended recipients before they are sent. This is not only to ascertain the practicalities associated with responding to these but also a helpful basis to develop the staff's understanding of the market.

- Material intended for inclusion in the CC's provisional finding or final report is put back to the appropriate party (generally the person who supplied the information in the first instance) and parties also have the opportunity to comment on summaries of their evidence posted to the CC's web-site.

- Many "Working papers" which are used to develop the CC's thinking are shown to the main parties, consistent with the CC's policy on transparency. The papers tend to contain background material that helps to formulate the CC's views so that corrections received prior to the formulation of provisional findings are helpful.

- Data is sometimes also shared with the parties as far as constraints of commercial confidentiality allow, as is economic analysis.

- Surveys commissioned by the CC and other non-confidential sources of evidence are typically published on the CC web site.

- Provisional findings setting out not only the CC's provisional decision but also the reasons for its decision (often with a description of the industry concerned) are also published and consulted upon.

- If the CC is considering remedies, the CC will speak to many interested participants to evaluate the effectiveness of the remedies under consideration and the areas explored (for example in respect of a divestment remedy) can highlight various considerations that had not been explored as part of the competitive analysis.

These many stages at which industry participants can comment on the CC's analysis should ensure that simple errors of understanding, or incorrect conclusions because of missing evidence, are avoided.

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15 By way of illustration, in a merger inquiry two steel drum manufacturers, the CC published 19 third-party submissions and 14 summaries of meetings with (some of the same) third parties. See http://www.competition-commission.org.uk/inquiries/ref2007/blagden/index.htm.

This is fairly typical. For a more complex case, see the 97 third-party submissions in a recent merger involving book retailers at http://www.competition-commission.org.uk/inquiries/ref2005/hmv/index.htm.

6. External experts

On occasions the CC does supplement its in-house resources with the use of external experts although the frequency for doing so is greater in respect of its market inquiries than merger inquiries. The CC uses experts in two roles, and can also identify a role in which it believes external experts should not be used.

In cases requiring detailed industry knowledge the CC will occasionally hire sector experts. These are more likely to be retired industry executives acting as self-employed consultants, than employees of large consulting firms. It has also used transport economics specialists when assessing mergers in the rail sector. Typically, such experts would be used to advise the commissioners and staff working on the case on industry background. It is particularly important to have access to independent industry expertise when parties to the case are putting forward apparently contradictory expert views—for example on engineering matters.

Secondly, staff at the CC take advice from external experts on matters of technical analysis. There is a panel of financial experts advising on analysis of the cost of capital (more relevant to our regulatory cases than most mergers). The legal team might seek advice from specialist counsel, on matters outside the legal team's expertise (e.g. on another jurisdiction's insolvency law).

The economists' team at the CC has for some years had the benefit of advice from an 'academic panel' of approximately 10 economists. This 'panel' (the word is somewhat of a misnomer, as it only convenes as a group occasionally) consists of academic economists mainly based in the UK, with expertise covering the range of work that the CC undertakes: particularly Industrial Organisation (competition and regulatory) and applied econometrics. The academic panellists provide advice to the CC staff, principally to those within the economic division, rather than to the decision makers (i.e. the members). Their role is important an includes reviewing work done by CC staff, suggesting lines of analysis and helping the staff team to ensure they are using appropriate analytical techniques and are aware of the relevant branches of economic literature. As well as the provision of relevant experience their role on occasions is to provide a high quality internal peer review. Several past academic panellists have gone on to become CC members, i.e. decision makers.

A number of practical issues arise when seeking to engage external expertise, including time pressures and conflicts. Procurement rules applying to the CC will affect the speed with which experts can be engaged (although they can also serve to identify a pool of possible experts) as will the necessary time need to assess whether the proposed engagement gives rise to any conflicts. The nature of the statutory timetable is such that there is in practice, little time in which to find, engage and work with the expert to ensure a maximum contribution prior to publication of provisional findings. Never the less the expert may well be of assistance when assessing responses to the provisional findings consultation. The CC's experience is that these issues vary according to the type of expert concerned. For example, typically, academics are not willing to respond at short notice and do not usually have a support team which is 'ready to go' which clearly some tasks require.

The CC has also drawn upon academic expertise by organising roundtables where a number of specialists are invited to contribute. The experience of the ongoing grocery market inquiry[16] was positive and suggested that roundtables may be organised during a merger inquiry. In the *BSkyB and ITV* (2007 ongoing) merger case, the CC arranged for a group of media specialists to discuss issues of media plurality.

[16] Documents on these roundtables are available at http://www.competitioncommission.org.uk/inquiries/ref2006/grocery/economic_roundtables.htm

The role in which the CC believes external experts should not be employed is carrying out technical analysis (economic or financial) that should be within the core competence of CC staff. The CC uses consultants (economic or financial) occasionally for reviews and background studies, and as additional staff members when the workload is simply too high for all cases to be carried out by full-time CC staff. As noted above, it also uses academics in an advisory capacity, working closely with CC staff. It has also used specialised firms for market research and specific software projects (such as populating geographic information systems, or building databases). However, it would not generally want to contract out some discrete area of economic or financial analysis on a case to an outsider—and particularly not some area requiring sophisticated analysis. The CC would always prefer to carry out such analysis in-house not least to capture any relevant tools into the CC's capabilities.

The CC is cognisant that using external experts has potential benefits but if it were used extensively in the wrong ways could become akin to contracting out its thinking. If the analytical tasks involved are relevant to the CC's work, then it must retain the capability in-house to carry them out. It therefore seeks to employ expert economists and financial analysts as full-time staff and have considerably expanded these teams in recent years. When (as recently) it finds itself undertaking more—and more sophisticated—quantitative analysis, recruitment is steered towards candidates with particularly strong skills in quantitative techniques, not by employing consultants to carry out the quantitative analysis on the CC's behalf.

UNITED STATES

1. Introduction

The U.S. agencies reviews of the competitive impacts of proposed acquisitions increasingly rely on acquisition of large datasets and sophisticated analyses. This development is a function both of the increased availability of statistical tools for data analysis *and* an exponential increase in the kinds and amounts of information retained by companies, associations, government agencies, *etc.*, to which those tools effectively can be applied. Thus, for example, econometric studies carried out by agency staff commonly inform the agencies' determinations as to whether to challenge a proposed acquisition, and are often an important part of the proof that staff puts forward in a challenge. The agencies also carefully evaluate econometric studies submitted by the parties. Agency staff routinely replicate such studies and test them for robustness. Even in cases where sound econometric work is not feasible, for example because of a paucity of reliable data, the parties sometime submit an econometric study. In such cases, the agencies may commit substantial resources to establishing that these studies are not reliable.

In agency investigations and litigation, statistical analyses most frequently are used to aid in definition of relevant markets and assessment of competitive effects. Each agency has a large staff of Ph.D. economists who are instrumental in aiding attorneys in creating, narrowing, and evaluating responses to data specifications. From the outset, there often will be a trade-off between accessing potentially useful data and limiting the scope/burden of production. Particularly given the limited time periods allowed for evaluation under the U.S. premerger notification process (governed by the Hart-Scott-Rodino Act), there also may be a trade-off between the best use of available time and resources in an investigation and the development of economic evidence that will withstand the rigors of trial. In order to productively manage these trade-offs, it is key for the agencies' to work with the parties to understand the kinds and amounts of available data, and to work with staff economists to assess the likely usefulness of those data. In some instances, the agencies have been able to limit data requests/demands by securing agreements from the parties to take certain evidentiary questions off the table. For example, an agreement that a party will stipulate to or not contest a given market definition may obviate the need to collect and analyze large amounts of data (and documents). This may be particularly practicable where a quick look at a dispositive question, such as likelihood of entry, appears practicable.

The agencies conduct many antitrust inquiries, but only a very few matters ultimately reach a courtroom. The agencies have used staff economists as testifying witnesses to good effect in several matters, including prospective and consummated mergers. More often, however, the agencies contract with economic consultants – often prominent academics – as testifying experts, and these experts commonly incorporate into their testimony econometric analyses that provide a basis for estimating competitive effects. Ordinarily, it is only when we determine that there is a strong likelihood that a matter may go to trial that retention of economic consulting firms is financially advisable. That kind of Atriage@ entails unavoidable litigation risk, because the experts are brought in at a later stage.

2. Contribution of the Department of Justice

2.1 DirecTV/Echostar - Complex Data, Customer Surveys, Econometrics

2.1.1 Background of the Investigation

The Antitrust Division's investigation of, and challenge to, the proposed merger of DirecTV and Echostar presented many issues requiring complex data analysis. On October 28, 2001, Echostar Communications Corp. and General Motors Corp., the parent company of Hughes Electronics Corp., announced a proposed merger valued at $26 billion that would have combined the nation's two most significant providers of direct broadcast satellite television service ("DBS"), Hughes's DirecTV service and Echostar's Dish Network service. DirecTV and Echostar were essentially the only two satellite distributors of multichannel video programming ("MVPD") to consumers in the United States, with DirecTV having over 10 million subscribers and Echostar having over 7 million. The two firms controlled the only three orbital slots serving the entire United States that were used to provide video service ("full-Conus DBS slots") and each offered a full slate of basic and expanded basic programming, premium channels, foreign language channels, pay-per-view, and, in certain markets, local broadcast stations. In the United States, the largest MVPD provider in most areas was the local cable company; cable companies accounted for about 80% of MVPD subscribers nationwide. The satellite firms' rationale for the merger was that it would allow them to make more effective use of scarce spectrum and therefore become a more effective competitor to cable.

The investigation focused, to a substantial extent, on two critical sets of issues. The first involved the related issues of product market definition and competitive effects. In more than 90% of the United States, customers for MVPD services had three options: DirecTV, Echostar, and the local cable company.[1] The merging firms argued anticompetitive effects were unlikely, in large part, because the principal competitor to (and thus principal constraint on) each DBS firm was not the other DBS firm, but rather the incumbent cable provider, which typically had a dominant share. Although the parties conceded some competition between DirecTV and Echostar, they argued that rivalry with cable was the much more significant driver of competition and any potential price effect would be more than made up for by the efficiencies. The second set of issues involved these efficiencies. The parties argued that by merging, they would "reclaim" almost half of the total spectrum devoted to DBS because they would be able to eliminate duplicative transmission of channels. This spectrum then could be used for a variety of purposes including providing local channels throughout the entire country, more high definition television channels, various new advanced services, more specialty channels, and video-on-demand-like functionality. They also argued that the merger would provide savings (through, *e.g.*, lower programming costs, overhead savings, and lower equipment costs via standardization), thereby allowing them to compete more aggressively against cable.

The Division conducted its investigation knowing that if it determined that the merger was likely to be anticompetitive, it would have to file a case in federal court seeking to enjoin the merger. The Division cannot simply block a transaction on its own; unless the parties agree to abandon the transaction (or settle the matter on a mutually-acceptable basis), the Division must prove its case before a federal judge. Accordingly, many of the decisions made, and steps taken, by the Division were directed not only at

[1] Standard over-the-air broadcast television was not considered to be in the relevant product market because it did not include the variety of programming services that are available to MVPD subscribers: it did not provide nearly the number of channels; it did not provide access to popular services such as ESPN, CNN, and TNT; and it did not permit access to premium services such as HBO or Showtime. Thus, most consumers did not consider broadcast television an acceptable substitute for cable and DBS services.

ascertaining the competitive consequences of the merger, but at preparing to prove its case in court should it determine the merger to be anticompetitive.

2.1.2 Data

In order to evaluate the parties' claims and determine whether the proposed merger was indeed likely to harm competition and consumers, the Antitrust Division gathered large quantities of information using a variety of techniques. Through the statutory Second Request process, the Division compelled the merging firms to produce a substantial amount of material, which ultimately comprised more than 1,600 boxes of documents and extensive other data. The Division also conducted 17 depositions, and numerous other voluntary interviews, with party business executives. As discussed further below, the merging firms also presented a variety of economic models and white papers embodying their analysis (and that of their experts) of the transaction's competitive effects and efficiencies. The Division also collected extensive data from third parties. Using several dozen statutory Civil Investigative Demands ("CIDs"), the Division collected more than 600 boxes of documents from third parties and conducted ten depositions. Moreover, the Division conducted more than 100 interviews with third-party business executives. The third party discovery was directed at a variety of types of firms with knowledge of the industry, including cable system operators, smaller MVPD providers, large retailers, and satellite manufacturers.

Among the most critical information collected was price and quantity data from the merging firms and large cable systems. As is often the case in merger investigations, the hope was that this data could shed light on the degree of substitution between the offerings of the merging firms and other potential substitutes. In this case, however, such data could be of only limited use for a variety of reasons, including the differing ways firms kept and classified data, the many varied aspects of pricing and quality in this industry, and the very few generalized DBS price increases during the period of analysis (which makes it difficult to infer how customers would react to DBS price changes).

2.1.3 Expertise

To analyze the issues raised by the merger and process the vast amount of information gathered, the Division needed to employ a variety of different forms of expertise. Some of the expertise was available internally, in the Division's Economic Analysis Group (EAG). But the Division also hired outside experts and consultants.

EAG consists of more than 50 Ph.D economists who are regularly integrated into the Division's investigations. The DirecTV/Echostar matter was no exception: several EAG economists were assigned to the investigative staff. They played an important role in analyzing the proposed transaction. If the Division seeks to challenge a transaction in court, it is often helpful to have an economic expert available to testify concerning the anticompetitive effects of the transaction. Thus, in this case as in many others, the Division retained an outside economist to both assist with the evaluation of the transaction and, if necessary, testify should the matter go to trial. Here, the outside economist reviewed documents, analyzed data, and critically examined the merging firms' arguments and models.[2]

The parties relied heavily on an econometric model submitted by their own experts. Given the central importance of econometrics, the Division hired a separate econometric expert whose primary role was to evaluate the merging firms' econometric model. As discussed further below, the expert, in conjunction

[2] For a number of reasons, in most cases where the Division anticipates needing an expert to testify at trial it hires that expert from outside the Division. An outside expert may have greater relevant expertise for the particular matter and fewer discovery issues than a Division employee, and may have more experience testifying.

with EAG, found important flaws in that model and, had the matter gone to trial, would have testified regarding those flaws.

The DirecTV/Echostar investigation implicated a number of highly technical issues, completely apart from economics. For instance, in evaluating the parties' efficiency claims that the merger would allow them to provide additional programming, it was necessary to understand the present, and potential future, transmission capacity of satellites using various transmission technologies. As is often the case, Division staff were to a great extent able to educate themselves about these issues through interviews and depositions of knowledgeable party and third party executives, as well as through review of relevant documents. However, this was not a perfect solution, in part because many of the relevant documents could not be readily understood without a prior technical background. Accordingly, the Division identified and retained a technical expert to help review technical documents and answer questions that the investigating staff would have. Had the matter gone to trial, it is possible that his testimony might have been offered on relevant technical issues.

As discussed further below, the Division also considered conducting a consumer survey to aid its analysis of the issues. Although the Division had considerable internal expertise regarding the subject matter of the investigation, it had no such expertise regarding the design and execution of a reliable consumer survey. Accordingly, the Division hired an outside expert to help design and conduct such a survey. (It also retained a second consumer survey expert to help analyze and critique any consumer survey the merging firms might choose to present.)

Finally, the merging firms presented a number of ordinary course business plans and efficiency studies, and an analysis of a possible divestiture, during the course of the investigation – some prepared prior to notification of the merger, others in response to questions raised by the Division. These business plans addressed anticipated efficiencies as well as a possible divestiture remedy that the parties suggested as a means of correcting any perceived competitive problem. To assess these documents and analyses, the investigating staff made use of the Division's Corporate Finance unit, an internal group staffed with individuals with accounting and financial analysis expertise. Because of the specialized nature of the analysis, and because it was desirable to have a retained expert who would be prepared to testify should the matter go to trial, the Division also hired an expert on business plan analysis.

To sum up, although the Division has considerable internal resources and made full use of them during the DirecTV-Echostar transaction, for some tasks it was necessary to supplement the Division's expertise with outside consultants. To a considerable extent, this was driven by the fact that the Division thought it might ultimately have to prove its case in federal court and therefore needed to retain expert witnesses who would be available to testify should the matter go to trial. The outside experts also played an important role in helping the Division analyze the transaction and evaluate the competitive effects. Perhaps the biggest problems with the extensive use of outside expertise were the difficulty in identifying appropriate, available individuals; the time and resources required to thoroughly educate them in the relevant issues; and the (often considerable) expense, given the high fees charged by the experts.

2.1.4 Consumer Survey

As noted above, perhaps the most critical issue in the investigation involved the interrelated problem of product market definition and competitive effects. It was critical to understand the extent to which the merging firms constrained each other, as opposed to the extent that cable was the chief constraint. In many cases, the Division can gain considerable insight into consumer preferences and degrees of substitutability by interviewing large, sophisticated customers. But here, virtually all of the DBS firms' sales were to individual consumers. Similarly, in many matters, good price and quantity data (such as supermarket scanner data) is available and, thus, econometric analysis can be especially effective. But, here, the data

contained numerous flaws and weaknesses. Accordingly, the Division determined that it might be useful to analyze customer preferences, and the degree of substitutability between the DBS firms and cable, via a consumer survey. In theory, such a survey could show that DirecTV and Echostar were particularly close substitutes and, therefore, that the merger could reasonably be predicted to have substantial anticompetitive effects; alternatively, it could show the converse was true.

The Division hired a survey expert and commissioned him to design an appropriate survey. The process, however, proved to be complicated. First, the Division had great difficulty identifying and hiring a survey expert. Many potential candidates either did not have sufficient time available or had various disqualifying entanglements. Once the Division did locate and hire a survey expert, other issues emerged. Although the survey expert was quite knowledgeable regarding the proper design and execution of unbiased, representative surveys, he was not particularly knowledgeable regarding the industry, and the multidimensional nature of competition in the industry (*e.g.*, differences in package prices, equipment prices, promotions, channel content of packages) made the task especially difficult. Like most survey experts, moreover, the Division's expert was accustomed to focusing on commercial marketing issues, rather than the sort of precision required of surveys conducted for us in matters tried to a court. As the process unfolded, it became clear that a reliable, statistically valid survey would be very expensive and time-consuming to conduct. Ultimately, the matter ended before the survey was ever finalized or executed. It is not clear whether it would have produced useable results.

In summary, the DirecTV/Echostar experience suggested that it may be possible to design and conduct a consumer survey that aids antitrust decision-making, but that it is a difficult, expensive, and time-consuming process. Accordingly, a survey should probably be viewed as a secondary means of analyzing the issues, to be resorted to only when other means are inadequate.

2.1.5 Econometrics

Econometric analysis played a major role in the Division's investigation. Given weaknesses in the data, it was unlikely that econometric analysis could be sufficiently robust to form the primary basis of any enforcement decision, but such analysis could and did help inform that decision. At a minimum, econometric analysis was central to the investigation because the merging firms relied heavily on an econometric model prepared by their experts in arguing that the merger was unlikely to have anticompetitive effects.

The experts for the merging firms submitted an econometric model that relied on data on what alternatives subscribers moved to from DBS services ("churn" data) to derive diversion ratios, and used a nested logit model to predict post-merger price effects. It predicted a relatively small price increase in the absence of efficiencies. But after the marginal cost savings predicted by the parties were included, it showed price decreases. It thus projected a substantial consumer welfare benefit.

The Division's economists and outside experts carefully reviewed the parties' model and made some corrections, including related to weighting and the appropriate diversion ratio to be derived from the churn studies. The Division's new estimates of consumers' sensitivity to MVPD prices and the closeness of the two DBS products lead to starkly different estimates of the likely price effect of the transaction. Moreover, the Division conducted its own analysis of likely marginal cost efficiencies, including those attributed to a reduction of programming costs (a major part of the claimed cost savings). By careful analysis of MVPD programming contracts, the Division estimated the likely merger-specific merger savings that, while substantial, was significantly less than that claimed by the merging firms. When this, and other, revised efficiency estimates were included in the corrected econometric modeling, they only slightly reduced the likely price increase from the proposed acquisition.

The fact that the Division's revisions to the parties' econometric model suggested substantial anticompetitive harm from the transaction was only one factor underlying the Division's ultimate enforcement decision. Importantly, that econometric finding was buttressed by the documentary evidence collected from the parties. The documents indicated a high degree of competitive interaction between Echostar and DirecTV. Not only did the documents show extensive competition between the two DBS firms over a variety of price and quality parameters, but they also showed a number of instances where each DBS firm's conduct was driven by the other DBS firm rather than by cable.

2.1.6 Outcome

Ultimately, the Division was able to come to a number of conclusions as a result of its investigation. The Division concluded that the appropriate product market was MVPD services, including cable and DBS, but that the two DBS providers were particularly close substitutes to each other and that competition between the two yielded important consumer benefits. Moreover, although the merger would generate some efficiencies, those efficiencies were not of sufficient magnitude to offset the substantial harm that the merger would cause to competition. Accordingly, on October 31, 2002, the Division filed suit in federal court seeking to block the merger on the grounds that it would have substantial anticompetitive effects in MVPD markets all across the United States. For millions of households without access to cable television, the merger would have reduced the number of competitors from two to one. For the vast majority of American households that have three options for MVPD--Echostar, Hughes's DirecTV, and an incumbent cable firm--the merger would have reduced the number of competitors from three to two. Thus, the Complaint alleged that the merger would likely adversely impact the price and quality of MVPD service for the roughly 95% of the U.S. population that resided in areas served by three or fewer MVPD providers. Shortly after the filing of the Complaint, faced with the opposition of not only the Antitrust Division but also the Federal Communications Commission, the parties abandoned the deal.

2.2 Monsanto/Delta and Pine Land Company - Intellectual Property

The Antitrust Division confronted significant intellectual property ("IP") issues in analyzing the August 2006 merger proposal of Monsanto Company and Delta and Pine Land Company and developing a remedy that preserved current and potential competition in traited cottonseed. The Division relied on significant in-house expertise in order to understand the various IP issues, and also sought the views and documents of market participants. The Division has consciously hired attorneys with expertise in IP issues to develop its capability, and has over time dedicated substantial resources to IP issues (*e.g.*, guidelines, advocacy on proposed legislation and regulatory developments, business review letters and enforcement matters).

2.2.1 The Traited Cottonseed Market

Most cottonseed sold in the U.S. today contains "transgenic traits" – genetic material from other organisms that is inserted into the cottonseed to give the cotton plant desirable characteristics. A seed company's breeding material is referred to as "germplasm," which is the genetic material in the cottonseed that gives the plant its characteristics – *e.g.*, yield, fiber quality, and performance in particular climates or soil conditions.

Monsanto is the dominant supplier of genetic traits used in cottonseed in the Southeast and MidSouth United States. It currently provides two types of cottonseed trait technologies – one type makes plants tolerant to glyphosate-based herbicides, while the other makes plants resistant to various types of insects. Monsanto has patented these technologies and licenses them to all United States cottonseed companies, who in turn receive a share of the fee that Monsanto charges farmers for use of the traits. Monsanto accounts for over 90% of all trait sales. At the time it announced the DPL acquisition, Monsanto,

operating through its Stoneville Pedigreed Seed Co. subsidiary, was the second-largest traited cottonseed company in the MidSouth and Southeast cotton growing regions of the United States.

Prior to the acquisition, DPL was the largest producer and seller of cottonseed in the United States; its seeds accounted for over 50% of the cottonseed acres planted in the United States and approximately 80% in the Southeast and MidSouth. Unlike Monsanto, DPL was predominantly a seed company and obtained the traits bred into its seeds from third party trait developers, such as Monsanto. At the time we investigated the merger, all of DPL's cottonseed offerings contained Monsanto's traits. However, DPL had been working with other trait providers to develop cottonseed with non-Monsanto traits. In particular, DPL had been working with Syngenta to introduce a trait that would compete with Monsanto's insect-resistant trait. DPL and Syngenta had anticipated that DPL cottonseed with Syngenta's trait would be ready for commercialization within the next two to three years.

2.2.2 The Complaint and Proposed Final Judgment

On May 31, 2007, following a thorough investigation, the United States filed a Complaint seeking to enjoin the merger, alleging that the proposed transaction would likely substantially lessen competition. At the same time it filed its Complaint, the United States filed a proposed Final Judgment that, if approved by the United States District Court for the District of Columbia at the conclusion of the Tunney Act process, will resolve the United States' competitive concerns.

The proposed Final Judgment seeks to preserve the competition that existed to sell traited cottonseed, to prevent any significant delay in commercializing cottonseed with non-Monsanto traits, and to ensure that trait developers have sufficient access to germplasm held by cottonseed companies independent of Monsanto to support future cotton trait development and commercialization. To accomplish these goals, the proposed Final Judgment requires Monsanto to divest its own cottonseed company (Stoneville) and other assets, to divest to Syngenta assets relating to its trait development project with DPL, and to make certain changes to the licenses it had with U.S. cottonseed companies for Monsanto's cotton-related biotechnology.

Monsanto and DPL closed the transaction shortly after the filing of the Complaint and proposed Final Judgment and merged operations after the United States had approved the acquirers of the Stoneville divestiture assets.

2.2.3 Intellectual Property Issues

Throughout its investigation, the Division recognized the importance of IP to competition in the traited cottonseed industry. For example, the traits themselves are patented; the U.S. Plant Variety Protection Act provides firms that develop certain novel seeds the right to exclude others from selling copies; and, increasingly, seed companies seek patents on particularly valuable lines of seeds to provide further IP protection.

Firms in this industry have entered into various licensing and cross-licensing relationships running between all levels of the traited seed development chain – *e.g.*, trait developers obtain certain rights to competitive IP, cottonseed companies have licenses with trait providers (some trait providers, like Monsanto and Dow, had vertically integrated into the seed business) and seed companies license proprietary breeding lines to and from various sources.

Moreover, it is not uncommon to have competitors in one part of the industry be collaborators in another – for example, Monsanto and DPL competed with respect to cottonseed sales yet worked together to develop and commercialize new traits. Similarly, IP disputes frequently occur throughout the traited

cottonseed industry. In fact, the Monsanto and DPL merger served to settle long-running litigation and arbitration between the two companies, that involved licensing issues in part.

The following two examples demonstrate some of the issues the Division faced in analyzing the effects of the merger and crafting an appropriate remedy against this web of IP rights, disputes, and complex licensing arrangements.

"Stacking" Rights

Most traited cottonseed sold in the U.S. contains both herbicide tolerant and insect resistant traits. DPL's trait licenses with Monsanto permitted it to combine or "stack" Monsanto traits with those of any third party (*e.g.*, DPL could potentially create a cottonseed with Monsanto's herbicide tolerant trait and Syngenta's insect resistant trait). DPL was unique in this regard; Monsanto's trait licenses with other seed companies did not allow stacking or restricted stacking to a particular trait developed by that seed company. Trait developers consider stacking rights to be important to the development of new traits in that they allow a developer of one type of trait (*i.e.*, insect-resistance) to combine its offering with another, established trait (*i.e.*, Monsanto's herbicide-tolerance trait). DPL's full stacking rights for Monsanto traits made it an efficient partner for trait developers.

Thus, in seeking to preserve the competitive benefit that DPL offered trait developers pre-merger, the proposed Final Judgment requires Monsanto to change its trait licenses with existing seed companies (including the acquirer of Monsanto's Stoneville seed company) to allow them, without penalty, to stack non-Monsanto and Monsanto traits

Syngenta's Trait Development Project

As noted above, DPL and Syngenta were in the late stages of their efforts to create cottonseed containing Syngenta's insect-resistant trait that would compete against Monsanto's similar trait. DPL and Syngenta had invested millions of dollars and committed significant resources to developing this project. During our investigation, Monsanto claimed that it would likely move to block attempts by DPL and Syngenta to commercialize the trait on the grounds that it would infringe Monsanto's IP, and on this basis argued that there was no competition to be preserved.

Rather than attempt to assess the likely success of the merits of such a claim, the Division's remedy seeks to preserve the competition that would have occurred but for the merger. To do so, the proposed Final Judgment requires Monsanto to divest to Syngenta certain DPL germplasm containing Syngenta's traits that had been progressing through DPL's breeding program along with a license similar to the one DPL had which would allow Syngenta to offer cottonseed containing the new trait stacked with Monsanto's herbicide tolerant trait.

Syngenta will thereby have the ability to bring its trait to market in DPL germplasm on roughly the same schedule as it could have done prior to the merger while still being subject to the possibility that Monsanto may seek to enforce its IP rights to block sales of Syngenta-traited cottonseed. As such, the remedy seeks to preserve the pre-merger status quo.

3. Contribution of the Federal Trade Commission

3.1 Carnival/Princess and Royal Caribbean/Princess ("Cruises") – Complex Data and Econometrics

3.1.1 Background of the Investigation

In 2002, the Federal Trade Commission conducted simultaneous investigations of two proposed transactions in the cruise line industry: a non-reportable proposed alliance between Royal Caribbean Cruises, Ltd. and P&O Princess Cruises plc (Princess), and a hostile tender offer by Carnival Corporation for Princess. As both transactions involved three-to-two mergers of significant competitors, the Commission conducted an intensive investigation over a ten-month period. Complex data analyses, including econometric studies, were cited in an explanatory statement as the reason for the Commission's decision not to seek to enjoin either transaction.

3.1.2 Data and Econometrics

The Commission's investigation of the proposed cruise line mergers involved a tremendous document production – roughly 2000 boxes were produced – and a highly data-intensive merger review. The FTC obtained enormous amounts of data on, among other things, capacity utilization and actual transaction prices, from the merging parties and others, and financial matters. These data were used for extensive empirical analyses of the industry. The statistical analysis done by FTC staff was important in the Commission's decision not to challenge the proposed transactions.

Given the importance of explaining Commission decisions and the extensive media interest in the proposed transactions, the Commission issued a detailed explanation of its decision, detailing work done to analyze these voluminous documents, and stressing the importance of the extensive empirical analyses of quantitative data on prices, bookings, ship deployments, and the financial characteristics of the industry and the parties.[3] These quantitative analyses bore particularly on the question of whether the cruise companies' use of yield management systems would enable them to coordinate on price discrimination between more and less price-sensitive customers based on characteristics of bookings, such as time of booking or category of berth. To evaluate this theory, the investigation used, among other techniques, extensive empirical analyses of actual transactions to search for systematic pricing patterns indicating that an identifiable type of transaction might be subject to coordinated interaction. The analyses showed that actual transaction prices in the cruise industry displayed substantial, unsystematic variation. In fact, there was not even a consistent correlation among the prices of "head-to-head" cruises offered by different cruise lines using similar ships and sailing identical itineraries from the same port at the same time. The prices of different categories of berths also varied unsystematically over time and over categories. The Commission concluded that this evidence was inconsistent with any claim that either proposed merger would enable the putatively coordinating cruise lines to agree tacitly on, and successfully implement, a price increase based on booking characteristics, and, for that and other reasons, closed the investigation without seeking to enjoin the transaction.

3 *See* FTC press release, "FTC Closes Cruise Line Merger Investigations" and accompanying statements, at http://www.ftc.gov/opa/2002/10/cruiselines.shtm.

3.2 Western/Giant – Econometric Evidence and Expertise

3.2.1 Background of the Investigation

In 2007, the FTC reviewed Western Refining, Inc.'s (Western) approximately $1.4 billion acquisition of rival energy company Giant Industries, Inc. (Giant). Both companies supplied light petroleum products, including motor gasoline, diesel fuels, and jet fuels that are used in cars, airplanes, and other vehicles, to northern New Mexico. After an extensive investigation, the Commission authorized FTC staff to seek a preliminary injunction in federal district court to block the transaction pending an administrative trial on the merits. A federal district court judge declined to issue a preliminary injunction, and the acquisition was consummated in May 2007. On October 3, 2007, the Commission voted to dismiss its administrative complaint against the merged parties.

3.2.2 Econometric Evidence and Expertise

The assessment and litigation of the competitive effects of the Western/Giant merger illustrates the process and potential problems involved in marshaling econometric evidence. FTC staff conducted an extensive investigation of the proposed acquisition, including identifying all of the firms able to supply light petroleum products to northern New Mexico and understanding the logistics for bringing supply to this area. Data relating to prices, refinery production, refined product pipeline capacity and use, refined product terminal use, and trucking informed staff's definition of the geographic and product markets and analysis of the likely competitive effects of the acquisition.

The initial investigation focused on understanding the flow of supply into the market, constraints on bringing additional supply into the market, and historical prices in northern New Mexico and nearby areas, as well as shipping trends in response to changes in relative prices. An academic expert in econometrics who was affiliated with an economics consulting firm was retained to help the Commission decide whether to challenge the merger and provide testimony in the event of a challenge. The econometrician drew upon his past work to model and simulate the likely effects of the merger, taking into account a large number of facts, market details, and general demographic information, including production and transportation costs, elasticity of demand, competitor behavior, and arbitrage constraints.

The analysis of the merger's competitive effects was complicated by the fact that the expected anticompetitive effect from this merger was the negation of an anticipated price decline, instead of an increase from prevailing prices. To model the market, the econometrician first analyzed supplier responses to price differentials between Albuquerque (located in the heart of northern New Mexico and containing almost all the refined product terminals in the area) and other cities. Because of the small number of observations on shipments for each supplier (relative to the number of explanatory variables), the econometrician built a reduced form predictive model rather than a fully structural model. While the predictive model could not determine the value of a variable's structural effect (such as the degree to which a supplier alters shipments in response to changes in a price differential) it could be used to conclude that a variable has no structural effect (*e.g.* could allow the analyst not to reject the hypothesis that a supplier had a zero supply elasticity). After using a separate model to estimate the response of gasoline demand to price in the greater Albuquerque area, the econometrician modeled the impact on price of the increase in supply that was anticipated absent the merger. The econometrician concluded that the merged entity could profitably increase the gasoline price in the Albuquerque area to the level it was before the planned increase in supply.

The costs of developing the necessary econometric models, obtaining workable data, and running and analyzing regressions were considerable. However, the out-of-pocket cost likely would have been higher

had the Commission not reached an agreement with the consultant to use the FTC economics staff for some back-office work.

Any discussion of econometric evidence would seem incomplete without some consideration of the ability of the finder of fact properly to assess that evidence. In the United States, preliminary injunction applications are tried before federal district court judges, who may have little or no antitrust law experience and less empirical economics training. It is often helpful if the econometric evidence that is presented to the court is offered to support other substantial evidence that can be understood without economics training. [4] Commission attorneys and economists find that it is sometimes necessary to work with testifying economic experts so that they will present an intuitively clear explanation of the theory and evidence on competitive effects.

[4] A close reading of the federal district court decision in a previous transaction reviewed by the FTC, Staples/Office Depot, may suggest that the court was more profoundly impressed by the Commission's relatively simple comparisons of advertised prices in localities in which there were differing numbers of competing office supply superstores than the Commission's strong econometric evidence that the proposed acquisition was anticompetitive. *See Federal Trade Commission v. Staples, Inc*., 970 F. Supp. 1066 (D.D.C. 1997). Some commentators have suggested that the parties encourage courts to engage their own economic consultants to assist them in evaluating the parties' analyses. The Federal Rules of Civil Procedure permit such a practice, which a few courts have used. The Federal Trade Commission does not have experience with this practice, though the Commission itself is able to avail itself of Bureau of Economics expertise.

EUROPEAN COMMISSION

1. Introduction

Many of the merger cases assessed by the European Commission can be characterised as complex by some dimension, for example because firm's competitive interaction cannot be easily captured by standard models or because large amounts of data need to be analysed to come to robust conclusions. At the same time, the deadlines imposed by the EC Merger Regulation limit the amount of analysis that is feasible in a merger investigation. In general, the Commission has one month to conclude its preliminary ("Phase I") investigation, after which a case is either cleared or an in-depth ("Phase II") investigation is launched. A Phase II investigation lasts approximately four-and-a-half months. However, a large proportion of that time is taken up by procedural steps ensuring the merging parties' rights of defence. In a typical Phase II case, the Commission has little more than two months to build its case and present its charges to the merging firms ("Statement of Objections"). Given these time constraints and the Commission's limited resources, a careful cost-benefit-analysis is necessary when deciding on the analytical tools deployed in an investigation. Examples of complex cases analysed by the Commission include, for example, Oracle/ Peoplesoft[1] (enterprise application software), Lagardère/ Natexis/ VUP[2] (publishing), GE/ Instrumentarium[3] (medical equipment), Siemens/ VA Tech[4] (engineering products) and the recent Ryanair/ Aer Lingus[5] airline merger. Each case involved significant analytical challenges stemming from the economic characteristic of the market. The cases included markets with differentiated products and zero marginal cost (software), complex differentiation parameters (books), and diverse, highly complex cost structures and vertical effects (medical equipment, engineering products).

While the analysis of economic market characteristics and formulation of an appropriate theory of harm is highly case-specific, more general conclusions can be drawn concerning the empirical challenges raised by complex merger cases. The Ryanair/ Aer Lingus merger is a recent example of a complex case where empirical analysis including large data sets played an important role in the investigation. Although the case involved a relatively straight forward horizontal merger of the two airlines, leading to high combined market shares, the case was challenging because the Commission had in previous airline mergers defined relevant markets on a route-by-route basis. It had sometimes accepted high market shares on individual routes on the basis that barriers-to-entry were low on these specific routes. Any competition problems were resolved through slot divestitures. However, these previous airline mergers had always involved two airlines operating from different hubs with largely complementary route networks.[6] By contrast, Ryanair/ Aer Lingus involved the merger of the two main airlines operating out of Dublin airport. Although there was only limited competitive overlap on an airport-by-airport basis (Ryanair mainly flying

1 Case no. COMP/M.3216 Oracle/ Peoplesoft

2 Case no. COMP/M.2978 Lagardère/ Natexis/ VUP

3 Case no. COMP/M.3083 GE/ Instrumentarium

4 Case no. COMP/M.3653 Siemens/ VA Tech

5 Case no. COMP/M.4439 Ryanair/ Aer Lingus

6 For example, case no. COMP/M.3280 Air France/ KLM and case no. COMP/M.3940 Lufthansa/ Eurowings

to secondary airports), initial indications were that the merger would combine the two closest competitors and would have significant negative effects on Irish consumers. Empirical analysis played an important role in assessing the merger's competitive impact. The case gave rise to many of the challenges often encountered in complex merger investigations and is therefore a useful case study to highlight some of the key issues. In the following sections, we summarise the empirical analysis carried out in Ryanair/ Aer Lingus, followed by a number of more general lessons and recommendations.

2. Empirical analysis in the Ryanair / Aer Lingus case

In June 2007, the Commission prohibited the hostile takeover by Ryanair of Aer Lingus. This was the first time the Commission had to assess a proposed merger of the two main airlines in a single country, with both operating from the same "home" airport – Dublin. It was also the first time the Commission had to assess a merger of two "low-cost" airlines, operating on a "point-to-point" basis. At the time of the decision Aer Lingus and Ryanair competed directly with each other on 35 routes to and from Ireland. On 22 of these routes, the merger would have left customers with a monopoly. On the remaining routes, Aer Lingus and Ryanair are each other's closest competitors. Furthermore each party constrained the other in a number of routes where the threat of mutual entry was credible in the absence of the merger.

Ryanair argued that it behaved independently of Aer Lingus (and any other competitor) when setting prices and deciding on frequencies for its routes. Ryanair claimed that it is constrained only by the price sensitivity of its customers and not by the pricing behaviour of its competitors. The Commission dismissed these claims on the basis, inter-alia, of three types of evidence: a qualitative assessment of the price-setting mechanism by low-cost-carriers, a price regression analysis and a customer survey. In what follows, the latter two are briefly summarised.

Quantitative analysis played an important role in this case. First, an analysis of the extent to which Aer Lingus and Ryanair prices moved together over time in certain routes was helpful to establish whether the respective destination airports were part of the same geographic market. The economic intuition is a simple arbitrage argument: if the products are very close substitutes, either on the demand or on the supply side, their prices cannot move too far apart, since either consumers or producers will shift between them in such a way as to eliminate the more expensive one from the market. Second, an exhaustive regression analysis confirmed that Ryanair exerts a competititve constraint on Aer Lingus prices.

2.1 Price regression analysis

The Commission conducted a price regression analysis in order to test a number of hypotheses delineated ex-ante concerning the extent to which fares of one party are affected by the other. The Commission relied on a panel-data set obtained by combining price, frequency and route specific data provided independently by the merging parties and the Dublin Airport Authority. Both Ryanair and Aer Lingus also submitted their own econometric reports.

All reports followed essentially the same strategy: to determine whether the presence of one of the merging parties on a route would have an impact on the prices of the other. Hence, the variable to be explained is the net average fare in a certain month on a given route and the explanatory variable of interest one that indicates that a rival firm offered one or more flights in that same month and route. Other variables are added to “control” for other possible systematic influences on fares, which refer to route characteristics that may affect demand or supply on that route.

The Commission explored two econometric methodologies.

- Cross-section regression analysis, which examines differences in prices across a number of affected routes at a point in time.

- Fixed-effects regression analysis with panel data, which exploits the variation in market structure at individual routes over time.

The Commission could derive no definite conclusions from cross-section regressions in this case given the impossibility to control for a number of unobserved factors that were likely to affect prices and differ across routes, the small number of observations, the sensitivity of the results to the month considered or the fact that the inclusion of statistically insignificant explanatory variables sometimes affects the coefficients of other variables.

The fixed-effects procedure compares the incumbent's prices before-and-after entry of a rival within the same route. Such comparison can mitigate the omitted variable bias that affects cross-section regressions because it is more likely that unobservable or non-measurable cost or demand factors affecting fares and varying across routes are not likely to vary over time within a given route (such as the type of destination, the popularity of the route according to purpose of travel, customer awareness, destination airport characteristics, number of alternative airports at destination, safety considerations, total duration of travel, air traffic regulations at country of destination etc). Thus, the primary advantage of fixed-effects regressions comes where most unobservable or non-measurable factors affecting price are unlikely to vary much during the sample period.

The Commission explored two types of regression specifications. First whether the presence of one of the merging parties in a given route is negatively related with the fares charged by the other. An alternative specification tested whether the number of frequencies of one merging party in a given route is associated with the other party charging lower fares.

The results indicated that depending on the exact specification, the Ryanair's presence is associated with Aer Lingus charging around 7-8% lower prices when considering city-pairs reflecting the Commission's retained market definition. This effect was economically and statistically significant in all tested regressions which typically included alternative demand and supply controls. In practically all cases the control variables in the different regressions had the expected signs and are statistically significant. Results were also robust, correcting for violations of standard econometric assumptions alternative specifications.

Furthermore Ryanair's presence had a much stronger economic impact (at least double) than that of any other type of carrier. In fact, in most cases the regressions indicated that the presence of other carriers had no economic or statistically significant effect on Aer Lingus fares.

2.2 The Customer Survey

The goal of the survey was to test (i.e. validate or refute) Ryanair’s claim that the Merging Parties do not constrain each other. A further advantage of the customer survey is that it would allow to consider the views of all customers, including those booking tickets via the Internet. As both airlines sell most of their tickets directly, relying only on responses from travel agencies and corporate customers would not provide a correct picture of the customer's view.

The results suggested that the parties were indeed the closest competitors in routes out of Dublin, not only because they benefited from advantages derived from their strong presence in Dublin but also in the eyes of customers. The responses showed that a significant proportion of passengers of both airlines considered the other Irish airline to be an alternative. Second, much fewer passengers of both airlines

considered all other airlines an alternative. Thus, the results of the customer survey indicated that there is a certain symmetry in the responses by Ryanair and Aer Lingus passengers.

Passengers travelling with airlines other than the merging parties considered more often Aer Lingus than Ryanair. This is consistent with the hypothesis that Ryanair is less constrained by airlines other than Aer Lingus. This further suggests that the competitive constraint that both carriers impose on each other is symmetric. This is relevant because, in contrast to for example the Commission's regression analysis that focuses on the impact of presence of one firm on the prices of the other, respondents to the survey were not asked whether they considered the other carrier on the basis of a particular dimension (e.g. price).The Commission's investigation indicated that Ryanair and Aer Lingus compete largely for the same pool of customers and competition takes place via a differentiated product offering in which a lower price reflects a lower quality product and a higher price reflects additional features. This implies that price is only one parameter in the analysis. For example, in the presence of Aer Lingus, Ryanair may not lower its fares but may be forced to increase the quality of its service or reduce the price of ancillary services. A regression analysis on air fares is thus unlikely to capture the full extent to which the merging parties may exert a competitive constrain on each other. Moreover, on the basis of the available data the fixed-effects methodology lead to conclusive results only with respect to the impact of Ryanair on Aer Lingus prices.

The results suggested that the parties are indeed the closest competitors in routes out of Dublin, not only because they benefit from advantages derived from their strong presence in Dublin but also in the eyes of customers. For instance where both airlines fly into the same airport at the destination end, more than half Aer Lingus and Ryanair's passengers have considered the other carrier. On routes where Aer Lingus and Ryanair compete with a third carrier around 40% of Ryanair's passengers considered Aer Lingus as an alternative, while around 17% considered any other competitor. Similarly, for Aer Lingus, 32.5% of its passengers considered Ryanair as an alternative whilst only 15.7% considered any other competitor.

Importantly, the results of the passenger survey indicated that there is certain symmetry in the responses by passengers of Ryanair and Aer Lingus. In particular passengers travelling with other airlines other than the merging parties considered more often Aer Lingus than Ryanair. This is consistent with the hypothesis that Ryanair is less constrained by airlines other than Aer Lingus. This further suggested that the competitive constraint that both carriers impose on each other is symmetric.

Thus, the price regression analysis and the customer survey provided important pieces of evidence, which, together with a range of qualitative information (such as the market survey, interviews and internal documents) formed the basis for the Commission's prohibition decision.

3. Lessons and Recommendations

3.1 Experience with obtaining and processing large data sets

While a merger investigation is always built on various sources of evidence, empirical evidence can support an assessment and thereby improve the robustness of a decision. Such empirical evidence can include marketing studies, customer interviews, independent industry studies and occasionally as well an econometric study. Rigorous and carefully designed econometric models can go a long way in providing additional and sometimes compelling evidence. In particular, econometrics can provide evidence on the nature of relevant markets and the likelihood of anti-competitive effect.

The Commission operates under an administrative system, where decisions are legally binding. As a result, when reliable econometric evidence is introduced by the parties, proper consideration must be given to such evidence in the decision making process. Even in cases where the agency is only re-active, i.e. it

relies on studies submitted by the notifying party or third parties, it is necessary to study the data set in order to check the quality of the empirical analysis. However, in some cases one cannot rely solely on interested parties for evidentiary empirical analysis, as the parties have a clear incentive to only provide evidence which backs their case. Empirical analysis which is contrary to their interest will never see the light unless the agency carries out its own work. Moreover, on some occasions only the agency is in the unique position to collect the relevant information. This applies for instance if the analysis requires confidential data from different parties.

However, clear limits to the scope of empirical work arise from tight deadlines in particular in merger investigations. Econometric work and data management is a time consuming task. This is a particular concern in merger cases which are subject to tight deadlines.

As any other type of evidence, to be persuasive econometric evidence must be reliable. This implies that, apart from using an appropriate econometric methodology, the data must be consistent and accurate. Assembling a coherent, correct and complete database is a necessary requirement. This requires for instance a careful check of the data, whether the econometric study is submitted by an outside consultant or it is the result of in-house work. The bulk of the time spent on an empirical analysis therefore consists of managing, arranging and checking the data.

Once a data submission has been received, whichever its source or size, it has first to be checked for the presence of major inconsistencies and then adapted for the specific needs of the analysis to be performed. When checking for inconsistency, a distinction can often be made between data provided by professional data providers, such as National Statistic Agencies or specialized companies, and data which come directly from the parties. The former are usually already cleaned and in a way "ready" to be scrutinized. In merger cases, however, in most cases one has to rely on data directly received from companies' accountancy and auditing archives and submitted to the Commission as part of the evidence for the merger.

It has to be emphasised that the "correctness" or "reliability" of a data submission often depends on the purpose the data set is used for. Good accounting data are not necessarily appropriate for econometric analysis. Some values of interest could be difficult to retrieve, typically the various components of the cost structure. In other cases the identification of certain issues could require a lot work when the data has to fit into an econometric model. This arises for instance in cases of commercial accounting data in which the name of the customers are written in different ways in the same dataset. In addition, when data referring to different years are submitted, a possible change in the business structure or in the accountancy system do not allow for "before and after" comparability of the data.

The Commission has tried to overcome some of the difficulties arising from this process by submitting a sample spreadsheet, usually in Excel, to be filled in by the parties. Attached to the spreadsheet, a detailed instruction document is sent in order to assure a correct answer. This procedure, used for instance in the Ryanair/Aer Lingus case, has at least four advantages:

- It requires the agency to specify as precisely as possible the content, shape and size of the data requested;

- It increases the transparency of the data request procedure, forcing the parties to leave blank fields in case of unavailability of the information requested;

- It transfers some of the data management work form the authority to the company, thereby reducing the workload for the authority (crucial in merger cases)

- It improves the quality of the submission (in manipulating to fit the request, the data are usually checked at least once by parties' experts).

A further complication arises from confidentiality issues. In merger cases, it could be case that data coming from different sources has to be jointly analyzed by the authority. These data could be confidential vis-a-vis each of the submitting entities. In this case it is recommended to use a similar form/spreadsheet for the different entities in order to facilitate the merging of the data.

As an illustration, in the Ryanair / Aer Lingus case the Commission assessed the non-coordinated price effect of a merger in a specific market. The objective was to establish whether each of the merging carriers charged systematically lower fares on routes in which the other was present compared to routes operated only by one of the two with or without the presence of third competitors. The merging of three different data sources was required for this purpose:

- fares and other information from Aer Lingus;
- fares and other information from Ryanair;
- information on the competitive framework on each route out of Dublin from a third and independent Authority.

Data were available on a monthly basis for at least the period 2000 to 2006.

The specificity of the request considerably reduced the workload for the data management in this case and, thanks to the duplication of some of the requests, i.e. information on capacity requested to both parties and the Dublin Airport Authority, permitted an additional check for the reliability of the submissions.

3.2 How to design market surveys

Market surveys can be carried out for many different purposes and can have different levels of complexity. Typically, during the investigation they are used to contact competitors and consumers to verify the parties submissions for instance with regard to the market definition, the closeness of competitors and entry barriers. There are at least two practical issues which have to be decided when drafting questionnaires: the scope of the questionnaire, which translates into the time necessary to reply (and to some extent the return rate), and the specificity in the questions, which requires a certain level of background knowledge of the market.

However, market surveys may also be used to gather data which the parties cannot provide and which are not available from public sources. For instance, low cost airlines sell the bulk of their tickets via the internet. Travel agencies therefore may only provide a poor guide on customer preferences when choosing low cost carriers. In the Ryanair / Aer Lingus case, the Commission therefore commissioned a customer survey. It was important for the Commission to try to ascertain, to the extent possible within the constraints of the Commission's investigation, the views of individual customers directly. The questionnaire was designed by the Commission and implemented by a specialised external contractor over a 10 day period. The Commission processed the responses and analysed the results all within the tight deadlines provided by the Merger Regulation. The goal of the survey was to test (i.e. validate or refute) Ryanair’s claim that the Merging Parties do not constrain each other because Ryanair serves customers that would otherwise not fly with Aer Lingus but in the event of a price increase would choose not to fly.

The survey created mainly three challenges. The first one arose with the design of the questionnaire. Questions have to be neutral but at the same time guide the customer such that he or she reveals the

relevant information. In order to do so, the survey had to be designed at a relatively advanced stage of the case analysis (phase 2 of the investigation). In order to obtain a high response rate, the number of questions had to be limited which requires focussing the questionnaire on the most important issues. Consulting the parties on a draft was useful both to ensure neutrality and a better focus. The second challenge is linked to the selection of the sample. It has to be sufficiently representative while at the same time the sample size is limited by the time constraint and budget constraints. The third challenge arose from the little available time. Basically the survey and the evaluation had to be carried out within two weeks. For that reason it was highly important to have an appropriate software available to process the data as soon as they arrived.

3.3 How to prepare for dealing with complex mergers

Given the time constraints, in merger investigations strategic decisions on the type of data work have to be taken early in the procedure. The type of empirical analysis one wishes to carry out has a significant impact on the data requirements. As replies to data requests and data processing is time consuming, data must be received as early as possible in the investigation. It is therefore necessary for the authority at an early stage to decide what type of analysis should be performed on the data. This requires an early orientation of the possible theories of harm. In a two step merger investigation procedure, as it is the case under the European merger control, it may also require to request data at a stage in phase I when it is not yet decided whether a more in-depth investigation is warranted (phase II).

The data requests must be organised such that data are provided in a format that can be easily used for empirical analysis. Well designed request for information can shift at least some of the burden of data management to the parties and reduce the time necessary for assembling a coherent and complete dataset.

Finally, as there may be a need for a specialised market survey, administrative issues and the availability of appropriate software have to be solved beforehand. Given the time needed to identify qualified contractors and to carry out the tender procedure, also market surveys have to be prepared at an early stage of the procedure.

3.4 Mergers which involve special knowledge which is not available in-house

Depending on the individual case, different types of external specialists may be useful: Industry specialists may be needed to advise on technical issues which arise in a particular sector, in the case of market surveys a contractor may be needed to carry out the field work while economists may sometimes wish to consult with external econometricians specialising in areas not regularly covered by the Commission.

It may be justified to build up in-house capabilities in technical issues which are likely to come up on a regular basis. Outsourcing instead may focus on expertise which is either very difficult to acquire or where it is unlikely that such knowledge is much used in the future.

As regards the use of econometrics, for instance, it is useful to have the necessary expertise available in-house because most techniques can be applied in a wide range of cases and the systematic use of external consultants may sometimes raise confidentiality issues. The CET for instance has recently created positions for specialists on data management. Apart from organising regular training courses, the CET is writing a Manual for the use of empirical analysis in anti-trust and merger control and it also aims to develop guidance on best practice.

3.5 Guaranteeing merging parties' rights of defence

Empirical analysis frequently requires the Commission to review highly confidential data provided by different market participants. However, to be useful as evidence in a merger procedure, the merging parties

must be able to verify the Commission's methodology and conclusions drawn from the data. In a regression analysis, this includes in principle both the methodologies applied by the Commission and the general structure and nature of the data itself. Depending on the type of data used, this can raise difficult confidentiality issues. In bidding analyses, even individual data points may reveal information about competitors' bidding strategies and any leaks may thus be highly damaging for the affected firms. In the Ryanair case, the pricing data collectively also contained highly confidential business secrets; however, individual data points (such as the prevailing fare on a given day and route) in isolation were somewhat less sensitive.

The Commission has developed a "data room" procedure which enables merging parties' economic advisors to verify the Commission's analysis while maintaining the necessary confidentiality. The same procedure also applies to other parties involved in the procedure, such as customers and competitors. The data room rules are adjusted to the specifics of each case; however, as a general rule, the Commission provides market participants' external economic advisors with access to several PCs in a "data room" on the Commission's premises, equipped with econometrics software, the necessary data sets and a log of the regressions used to support the Commission's case. There is no network connection, and no other outside communications are allowed. The economic advisory team is allowed to remain in the room during normal working hours. If justified, access will be provided for consecutive days (typically two to three days). The economic advisory team may remove from the data room only a final report, which is verified by Commission officials. Each member of the economic advisory team signs a confidentiality declaration before entering the data room.

The data room procedure has proven to be a useful procedural tool reconciling confidentiality requirements with rights of defence considerations in a pragmatic fashion. However, it requires significant resources, especially in terms of staff, and has thus been limited to selected cases where empirical analysis played a key role.

4. Outlook

The Commission has gained significant experience in handling merger cases involving complex analysis since obtaining jurisdiction for merger control in 1990. Some observers have argued that the introduction of the new SIEC[7] test in 2004 has further increased the scope for empirical analysis and has thus led to an increasing number of complex merger investigations. However, empirical techniques are no more than a means to an end, enabling the competition authority to more fully exploit the available information relating to a merger's potential competitive impact. Where feasible within the time limits of the Merger Regulation and with reasonable resource deployment, empirical techniques should thus be used in merger investigations, in conjunction with other sources of evidence. The Commission's experience in managing complex merger investigations suggests that the cost and time required for handling these case declines considerably, once the initial investment for developing the necessary tools and procedures has been made.

[7] Significant impediment to effective competition

BRAZIL[1]

1. General Overview about Merger Notification in Brazil

According to Article 54 of the Brazilian Competition Law (Law n. 8884/94), any acts that may limit or otherwise restrain open competition, or that result in the control of relevant markets for products or services, shall be submitted to CADE for review. Paragraph 3 specifies that the acts referred on the *caput* of this article also include any action intended for any form of economic concentration, whether through merger with or into other companies, organization of companies to control third companies or any other form of corporate grouping, when the resulting company or group of companies accounts for at least twenty percent (20%) of a relevant market, or in which any of the participants has an annual gross revenue of R$ 400 million (approximately USD 200 million) in Brazil. Those acts shall be presented to the competition authorities 15 days after the signature of the first binding document, under, a post-merger notification system.

On 2001, the Secretariat of Economic Law of the Ministry of Justice (SDE) and the Secretariat for Economic Monitoring of the Ministry of Finance (SEAE), the bodies responsible for the investigations and analysis of competition cases[2], jointly issued a Resolution[3] that established the Guideline for Economic Analysis of Horizontal Mergers, also followed by CADE. According to this Guideline, merger review has 5 phases: (i) definition of relevant market; (ii) determination of market share; (iii) analysis of the likelihood of exercise of market power[4]; (iv) analysis of the economic efficiencies generated by the merger; and (v) assessment of the net effects.

2. Obtaining Information

By notifying the merger, the parties have to provide minimum information established in a form, defined by Resolution CADE n. 15/98[5]. Following the notification, the BCPS publishes a summary of the transaction in the Official Gazette in order to allow any person to provide further information about, or be

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1 This paper was jointly prepared by Elizabeth Farina, president of the Council for Economic Defence (CADE), Patrícia Agra Araujo and Rubens Nunes, legal and economic, respectively, advisors of the presidency of CADE.

2 The Brazilian Competition Policy System (BCPS) is composed by Secretariat of Economic Monitoring of Ministry of Finance (SEAE) and Secretariat of Economic Law of Ministry of Justice (SDE), as investigative bodies and by CADE, which takes the final decision of all antitrust cases.

3 Jointly Ordinance SEAE/SDE nº 50, of August 1, 2001.

4 In order to assess the likelihood of exercise of market power, four key variables are analyzed: (a) whether imports constitute an effective remedy against exercise of market power; (b) if market entry is "likely, timely and sufficient"; (c) whether there is effective competition among the firms established in the market effective competition; and (d) other factors that may favor coordinated decisions.

5 The form is currently under review in order to allow parties to provide information in a more systematic way, and electronically. The new form will also allow BCPS to build a data bank, which allows information to be shared with and compared to other public authorities' data bank, such as Federal Revenue Authorities and the Central Bank.

opposed against it. Competitors, distributors and consumers are the first to be formally consulted about the transaction and its impacts but competition authorities have the power to require information from any individual or entity, as well as any governmental/public body[6]. Even though, most of the case's information and studies are provided by parties, voluntarily or upon authorities' request.

As a consequence of having a post notification system, parties have no incentive to provide information, or to provide it at the beginning of the analysis. Most of deeper information and data, including studies, are presented directly before CADE, after the Secretariats have issued their opinion and concluded the analysis of the case. Sometimes, a high number of complex economic and econometric studies arrived at CADE, just before the judgment.

As already mentioned, data and information arrive to BCPS upon directly authorities' request[7] to the parties or when competitors and/or clients bring additional information, by their own or upon request, at any time. Other sources of information to authorities are private data banks, hiring studies and other governmental bodies.

Referring to other public authorities, the BCPS bodies maintain a close relationship specifically with the Central Bank, the State and Federal Public Prosecutors Offices and have a cooperation agreement with the Federal Revenue Authorities, in order to allow exchanging of information. The fact that, in Brazil, each public authority has it on electronic system and data banks and there is not a "governmental network" in order to link public authorities and make exchange of information among them faster and easier, in a standard format, is considered one of the reasons why such tool is not more used. Another obstacle is that the exchange of information among public authorities is not a clear and common-used tool, and so is subject to judicial review.

With respect to private data banks, such as Nielsen Institute, since data collection and analysis is the firm's product, as well as the data banks are composed by firm's (clients) information, authorities cannot oblige Nielsen to render information collected or studies made, but buy them. But buying this kind of product by a governmental agency may face some legal and bureaucratic constrains. For instance, up to a determined amount (approximately USD 4500) the public agency may buy a product without a bid, but even without such obligation, the agency has to explain why it bought a determined product and not another similar one. If the product costs more than the USD 4500 a bid has to be carried out, and problems begin at the preparation of the invitation to the bid, which cannot be specifically so that it appoints to one winner, even when the study needed deserves such specification to be useful, until the end of the process. This is not to mention that the public buying process is usually bureaucratic, length and time-consuming.

Commissioning an economic study faces exactly the same problems mentioned above. This is one of the reasons why the BCPS has seldom commissioned economic studies for a merger review. Budgetary constrains is also another factor. An obstacle for the use of outsourced studies is to provide to a third party, not related to the process, data presented by the parties to the authorities specifically for the case. This is very controversial, since a professor may become a private consultant at any time. However, IPEA, SDE

6 In January 2004, SEAE and SDE instituted a "Joint Procedure for Merger Review" that has further expedited merger analysis. Under this procedure, both Secretariats begin reviewing a notification immediately upon its receipt and send a joint recommendation to CADE, thus avoiding the delay inherent in referring a case to SEAE and awaiting its analysis before SDE commences work.

7 Art. 25 of the Competition Law established a daily fine in case of misleading, erroneous and delayed information by the parties.

and ANPEC commissioned studies related to some sectors, such as health and financial, in order to establish criteria to define relevant markets[8]

The use of economic studies based on quantitative estimations in antitrust cases has started in 2000 with the merger of the two biggest Brazilian breweries, resulting in a still leading company AMBEV, more recently INBEV (Interbrew+Ambev). From that moment on, parties have brought quantitative economic analysis every time the Secretaries issue an opinion recommending strong restrictions to be imposed or manifest to the parties that, *prima facie*, there seems to be high probability of competition harm. More recently, whenever the case is somehow considered complex[9], parties have presented quantitative studies.

Yearly, SEAE and SDE issues market studies, which can be commissioned, facing the difficulties already mentioned, that are not directly related to a specific case, but a general analysis of a sector, which may help to understand sector characteristics and specificities[10]. With respect specifically to cases, the parties involved are the most common and used source of information. Only very recently, CADE has required the data bank and the methodology used on such cases, in order to be able to better analyzed and evaluate the results.

On 2004, SDE created a department of economic studies in order to improve the merger review. Even though, most of the quantitative economic studies used are still coming from the parties.

On 2005, CADE tried to regulate the presentation of economic studies on merger cases and released an ordinance to public consultation. Basically, the ordinance determined that all studies should be public, available at CADE's website, data banks have to be delivered as well as the methodology and the do-files, etc.. Companies and lawyers had a strong reaction against the Ordinance, arguing that it was against the due process of law and the broad right of parties for defence. For that reason, the resolution has never been enacted. Even though, CADE has, in practice, required the dataset and related information in order to consider the quantitative study as a basis for decision making.

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8 IPEA, ANPEC and SDE issued studies of "demand models", horizontal impacts, buying power, quantitative methods, efficiencies on mergers and vertical restrictions.

9 Actually, there is no mechanism under which the authorities declare that the transaction is simple or complex. Such phase is disposed on the draft bill, pending congress approval.

10 In 2006, the SDE issued some reports on competition policy: SDE and ANPEC commissioned studies related to the health sector, and some other sectors, in order to establish criteria to define relevant markets; its Quantitative Methods Unit developed a methodology to examine vertical restrictions and their potential harm to consumer welfare and a methodology to estimate the minimum variable scale and the barriers to entry into markets involving supermarkets; a report analyzing the potential anticompetitive effects of air routes' allocation, and a technical report on the pharmaceutical market, clarifying the criteria to define relevant market. SEAE produced 13 working papers on competition policy and its interface with trade and regulatory issues, named: "Unbundling policy in telecommunications: a survey", "Public interest: criteria to consider in antidumping investigations"; "Gambling regulation in North America: an introductory analysis"; "On the efficient use of the radioeletric spectrum"; "Networks neutrality: the future of the Internet and the institutional mix"; "Economic and legal issues of cartels on the retail of fuel: an investigation agenda"; "An analysis of the regulation of the market for health products"; "Mergers and acquisitions in the Brazilian foods and drinks industry: market power effect and efficiency effect"; "Studies on the regulation of the Brazilian health insure sector"; "Interaction between antitrust and antidumping: problem or solution?"; "The recovery of the regulatory reform in Brazil: a fundamental step to sustained economic growth"; "The tariff regulation and the behavior of the controlled prices"; and "The flexibility process and the mergers and the cooperation agreements in the air passenger transportation market".

3. Some examples - Cases

3.1 Mining and Transportation: CVRD

In 2000 CADE decided to jointly analyse seven merger operations involving CVRD, a former governmental iron ore company that had been privatized in the 90´s. Two of them involved the privatisation process and the sale of participation of one partner called CSN, one of the biggest Brazilian steel producers, and the other five are related to the acquisition of mines and of participation on railroads. SEAE and SDE agreed that adverse effects could arise in both the iron ore and the rail service markets and proposed various remedial conditions to CADE. In 2005, CADE approved the operation with structural restriction.

Arguing that the 7 operations were not able to cause anticompetitive effects in the Brazilian market, CVRD hired a dozen of studies, that discussed (i) definition of relevant market, if national or international, (ii) iron ore market structure, if a oligopoly with competitive fringe or a bilateral oligopoly, (iii) probability of abusing market power after acquisitions, and (iv) welfare impacts of the acquisitions in the country and abroad. Studies on relevant market and welfare impacts were based on quantitative analysis

In this case the SDE Quantitative Economics Unit prepared an extensive econometric model to analyse the impacts of the mergers on the Brazilian iron ore market. As mentioned, the Brazilian merger review is a post-merger notification system. Therefore it was possible to estimate the impact that had already been produced on prices and quantities. Most of the data used came from SECEX (Secretary for Foreign Trade) data set, which register the prices and quantities of exports of iron ore. The data informed by the parties were also used.. The results achieved showed that the merger, while review was still pending conclusion[11], had already produced effects – domestic prices started to closely follow the international prices movements and have caught them up, though under by a very stable difference related to internalization costs (transport and other logistic costs). The study concluded that the companies had already exercised their post-merger market power.

The SDE quantitative study concluded also that the relevant market was less than national and should be related to the logistic "corridors" based on the railways also bought by the new company.

There was a strong reaction against the results, and a bunch of quantitative and qualitative studies were brought by the party.

The economic studies were based on different prices data set. Some on list prices, some on transaction prices and both are quite different from the SECEX registers, due to aggregation problems. However those differences were not clear or explicated. It was almost impossible to compare the results in a productive way.

Supporting the international relevant market thesis, CVRD brought an economic study based on co-integration of domestic and international prices time series. Since these series co-integrated, parties argued that they belonged to the same relevant market. The argument was rejected because Cade considered co-integration a necessary but nor sufficient condition for prices from the same antitrust relevant market.

Based on simulations of the acquisitions effects using estimated demand and cost curves, CVRD argued that increasing profits earned in international markets would more than offset deadweight losses in domestic markets, assessed as small due to the low price-elasticity of iron ore demand and the buying power of the downstream industry – steel industry, automobile, home appliances, etc. Because Brazil steel

[11] The transactions were notified on 2000, but CADE has only concluded the review on 2005.

industry prices were already above the international steel spot prices, it would be impossible for them to pass-through the increase in the iron ore price and the final consumer would not be harmed. However, due to some anomalous results founded in the simulations, the argument based on total welfare standard was not considered sufficient to justify the approval of the acquisitions without restrictions.

3.2 Breweries: AMBEV

On 2000, the two biggest Brazilian breweries, Brahma and Antarctica, controlled approximately 50% and 25%, respectively, of the national sales of beer, both owned several brands. The next largest brand in Brazil was Kaiser, which was indirectly controlled by the Coca-Cola Company and whose market share was about 15%. There were several other small, regional brewers operating in the country. The market shares and concentration resulting from the merger were clearly very high, and raised serious competitive concerns. The principal issue in the case involved entry barriers, (the parties also raised a strong efficiencies defence) which had three major components: the establishment of a consumer brand, access to an effective distribution system and access to retail points of sale (the great bulk of beer sold in Brazil is consumed on premises at retail establishments rather than at home).

It was considered in many quarters that entry into beer production on a large scale, at the national level, was difficult. Brazil is a very large country, requiring the establishment of multiple production facilities to serve the different regions of the country. It is expensive to establish a successful brand, and most of those costs are sunk. Good distributors were scarce in many parts of the country, and it would be difficult to persuade small retailers to carry an additional brand of beer. On the other hand, the Brazilian market is huge and there were examples of rapid, successful expansion by a few regional brewers in the country.

For the first time in the Brazilian merger review history the parties presented quantitative econometric estimates of demand, based on retailing prices collected by ACNielsen. and also based on PEM methodology (Price Elasticity Model), more commonly used in marketing studies.

It is important to point out that Brazil achieved price stability on 1994 and the merger was notified on 2000. Therefore the price series started had only 5 years, and 6 observations per year, per region (adopted by ACNielsen). Therefore the data set was not enough to allow sophisticated estimations, and as mentioned below, the results were poor.

The PEM studies showed more consistent price-elasticity estimations. However, the methodology of the study (a kind of experimental technique) was not clear and the commissioned company that produced the study argued that they had to protect their intellectual property rights and could not open the details of how the estimation was produced.

In general, these studies were strongly criticized because its methodological weaknesses and inadequacy of data base. Estimated parameters related to bottled beer demand showed huge standard deviations and sometimes wrong signals. Results on canned beer demand seemed to be more robust than bottled, but not enough to be reliable. Neither the Secretaries, nor CADE estimated the demand by their own, based on the data set brought by the parties. And, due to pointed limitations, Cade did not use any of these studies to fully justify its decision, but founded likely the proposition that demand for brands of beer exhibits high price elasticity. According this perception, a significant increase in prices after the merger seemed to be contestable.

The competitive effects scenario presented by the merger was fairly straightforward: AmBev (the resulting company) would acquire significant market power which it would exercise unilaterally. Indeed,

the three largest brands of the merging parties, Brahma, Antarctica and Skol, were the strongest brands. Kaiser, through Coca-Cola, was strongly and publicly opposed to the merger.

CADE decided to impose six remedies: (i) AmBev must divest the "Bavaria" brand, a lesser brand owned by Antarctica and offer for sale to the purchaser of the brand five breweries, each located in a different region of the country; (ii) it must provide the purchaser with access to the Brahma distribution system for a period of four years, with an option for an additional two years; (iii) AmBev must offer access to its distribution system to five regional brewers; (iv) AmBev may not close any of its production facilities for a period of four years without first offering them for sale; (v) AmBev must provide a program of retraining and relocation to workers who are displaced by the closing of production facilities for a period of four years; and (vi) AmBev is prohibited from imposing exclusivity requirements on retail points of sale.

3.3 Chocolate: Nestle-Garoto

On 2002, Nestlé Brasil, the Brazilian subsidiary of the Swiss Group Nestlé, decided to buy Chocolates Garoto, a Brazilian firm in the food sector, which was a major producer of chocolates and sweets. In the general chocolate products market, Garoto was the third largest firm, while Nestlé and Kraft Foods (Lacta) alternated in the leadership position. The merger significantly increased horizontal concentration in the general chocolates market; although relevant market was defined narrower as boxed chocolates, tablets, snacks, candy bars, and chocolate Easter Eggs. Concentration was found generally high in those markets as well.

The merging parties and Kraft filed duelling market definition studies, employing price elasticity models (PEM) to estimate consumer reactions to relative prices among different chocolate formats and chocolate brands. At this time, however, the methodology was made clear and it was also clear that the elasticities were overestimated due to the fact that the consumer submitted by the experiment had not an income constraint. Other limitations were also pointed out by SEAE.

The merging firms also presented econometric estimations based on Nielsen data set to better illuminate the degree of competitive rivalry. In this case, the price time-series was long enough to produce consistent results on demand characteristics. And, based on the same data set, merger parties and the opponents produced different price-elasticity estimations based on different econometric models and different demand functional characteristics (linear, AIDS, etc.)

For the first time in a Brazilian merger case, the parties submitted simulation studies, which Kraft countered by conducting simulation studies of its own. The studies, designed to predict post-merger effects on prices and quantities. The already "standardized" simulation models also produce the estimated reduction in marginal costs needed to offset the merged firm's increased market power. The dramatically different results reached by the contending studies obliged CADE to consider a host of methodology issues associated with simulation models, including identification of the relevant demand function, assessment of the statistical uncertainty associated with demand elasticity estimates, and examination of the inadequacy in the Bertrand-Nash differentiated products model that the simulations employed. Other issues besides the relevant market were also contested, including barriers to entry and the prospects for expansion of such rival brands as Mars and Hershey, which were already in the Brazilian market. The contentious debate between the merger parties and opponents was not settled by an analysis performed by the competition authority, who decided not to use the results.

The applicants presented a detailed study of merger efficiencies prepared by an independent auditing company, that was supposed to support the merging parties' argument that there were enough efficiencies to reach even the price-standard criterion for estimate the consumer welfare net effect.

On February, 2004, a majority of the Council voted to block the operation, determining that Nestlé should sell Chocolates Garoto to a competitor with less than a 20 per cent share of the relevant market. In CADE's view, the econometric studies demonstrated a high cross-elasticity of demand among the various market segments for chocolates and among the different brands, leading to the conclusion that the relevant market was chocolates of all forms (excluding homemade items) in the Brazilian national market. CADE also noted that imports were not a significant factor in the market and that there were barriers to new entry because of difficulties in securing wholesale distribution.

CADE concluded that the transaction should be rejected because (1) neither the expected reduction in variable costs nor the degree of surviving market rivalry was sufficient to forestall price increases, and (2) no structural remedies were available to reduce the negative effects of higher concentration.

3.4 Paper Industry: Suzano-VCP-Ripasa

On 2004, Suzano and VCP notified the acquisition of 50% each of Ripasa – based on a consortium arrangement. These firms occupied the 2nd to 4th place in the rank of Brazilian paper producers. The leader is International Paper. Largest players integrate vertically activities in forestry, pulp, paper and paperboard markets. Paper exports reach about 45%-55% of total production.

The acquiring companies argued that they would explore the most important pulp and paper plant as a production unit, managed as a consortium to play the role of a common supplier to both companies, which would keep on being independent in commercial or other management decisions and strategies.

During antitrust investigation, Suzano and VCP proposed a structure of governance of former Ripasa's assets in order to prevent strategic information exchange among them and to guarantee full use of existing capacity in a modern plant settled in Americana, SP. Managers of former Ripasa's plant must implement autonomously a fixed production plan. Each new Ripasa's owner would be supplied with 50% of the produced quantities and sells it by itself, as if there were two distinct plants, one owned by each partner.

Increasing probability of tacit collusion was the Secretariats main concern. Huge fixed costs and the high cost associated to idle capacity are considered on the one hand incentives strong enough to prevent voluntary restrictions of quantities, but, on the other hand, can provide incentives to tacit collusion, as in a sort of "tragedy of commons" repeated game. Past price wars in episodes of retraction of the demand could teach the players that aggressive price competition is a bad strategy, moreover when exports can absorb excess of supply in domestic market.

Independent decision would promote the arbitrage between domestic and foreign markets, in such a way that margins should converge. Tacit collusion would preserve margins differentials between domestic and export markets. Despite some evidence that exports and domestic sales are sensitive to relative prices, parties informed that margins were significantly higher in domestic market than in exports.

The case took more than one year in SEAE due to the difficulty to get the proper data set to define the relevant market to be adopted, and the probability of competition harm due to the consortium operation. The Brazilian Pulp and Paper Association data base was also very helpful, but it took a long time to be analysed.

Suzano brought an economic study of the probability of tacit collusion before and after the joint venture, based on Compte, Jenny & Rey (2002)[12]. The model considers the effects of asymmetry in market

[12] Compte, Olivier, Frédéric Jenny, Patrick Rey. "Capacity constraints, mergers and collusion". European Economic Review 46 (2002) 1-29.

shares and productive capacities on the net present value of cash flows associated with two feasible strategies, to cooperate, accepting prevailing price levels, or to defeat, cutting prices.

The application of the model to the case did not demand econometric estimation, but available historical data (production, capacity) of players. Results suggested that the joint venture had a negligible effect on incentives to tacit collusion. Cade considered that this result is valid if and only if the plant owned in common by rivals is not likely to become an instrument to strategic information exchange. The approval of joint venture was subject to restrictions with the objective of preventing changes in the joint venture's rules of governance and of monitoring conducts of managers and owners.

4. Conclusions

Complex merger cases still have taken too long time to be decided by the Brazilian Competition Authorities. One of the reasons is that the authority is heavily dependent on the parties data basis. The second is related to the very small team of economists to perform quantitative studies timely. Moreover, we do not have specialized teams by sectors. Complex cases require a very good knowledge of the market functioning and dynamics.

At CADE, there is not an economist's team to concentrate all the studies, and due to the Brazilian post-merger notification system, most of the studies are brought to the Council and not to the Secretaries that count on a small but specialized team. Each commissioner staff has at least one economist, but some of them are not trained on econometric studies in order to evaluate or re-estimate the model. Even-though CADE has adopted a more demanding attitude regarding the quantitative studies, requiring the data set, with clarification of the characteristics of the data set and of the models adopted and softwares (do-files).

Data set are very expensive and in most cases that involve intermediary sectors, and non-commodities, there are very few sources to get good information but from the parties.

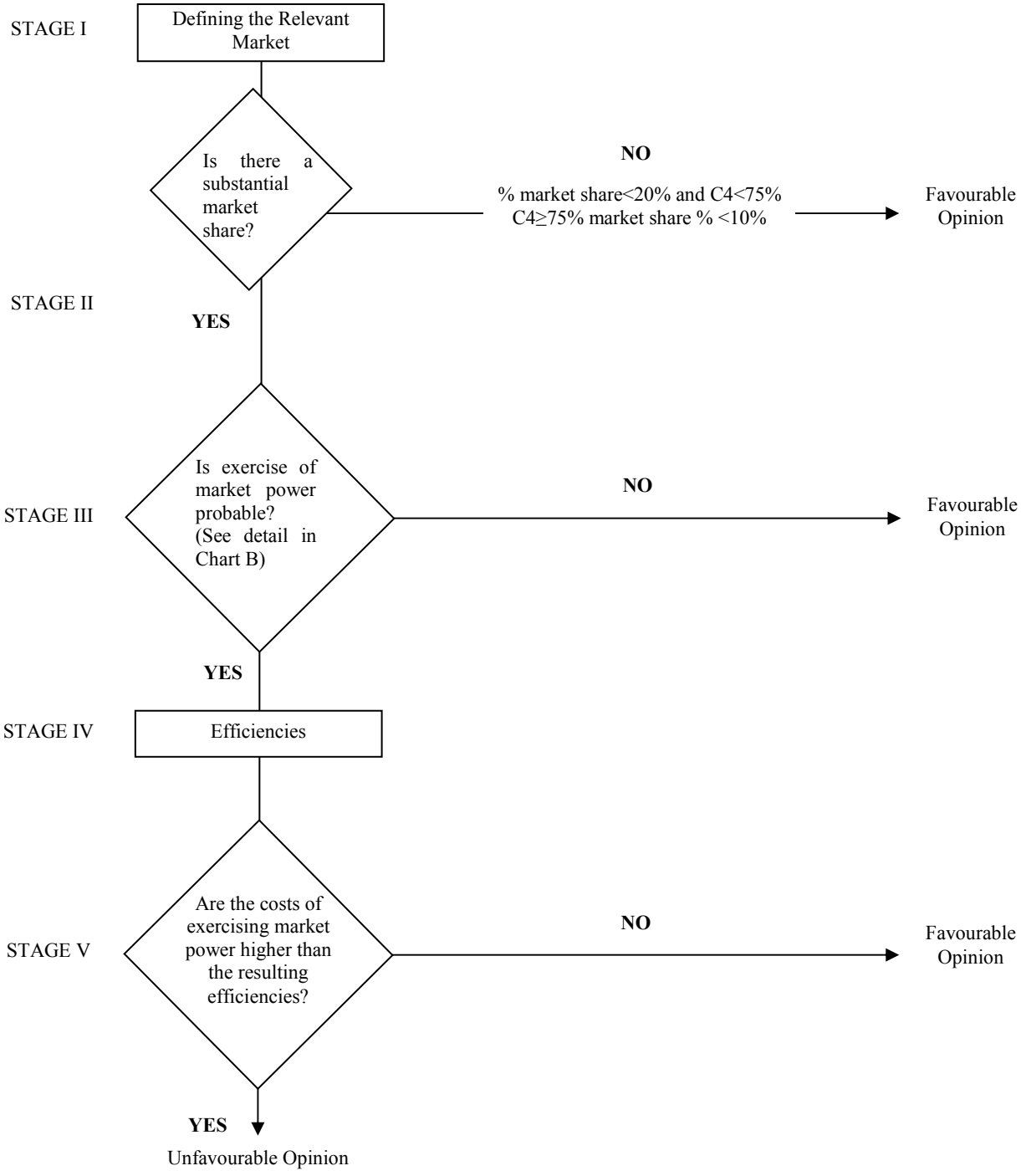
It is very difficult for the competition authority to commission a study or to hire an expert to evaluate the quantitative studies brought to the merger review or to develop a study to SBDC.

As a result, although the parties involved in a transaction under review are still the more common source of quantitative studies in most of the cases, the quantitative studies brought, so far, were not crucial for the decision making, though in some cases they have contributed somehow.

Generally speaking, the estimative of demand and the simulations of post-merger effects have not been very robust, due to lack of good data. However, the quantitative studies have increased rapidly and the BCPS has improved its capacity to deal with them, by criticizing its specifications, assumptions and methodology, but yet it is not common to replicate the results presented by the parties, and to have the initiative to conduct its own studies. For more recent cases, not concluded yet, the Secretaries have been much more active but the cases are still in progress. Moreover, qualitative studies have been improved, based on up to date economic theory and, when data are not appropriate, qualitative analysis is superior to inform decision making. One of the reasons that could be attributed to these facts is that economic studies in Brazil is a new tool, for the parties and authorities as well, but parties, of course, react faster, be hiring experts, provided by the Universities.

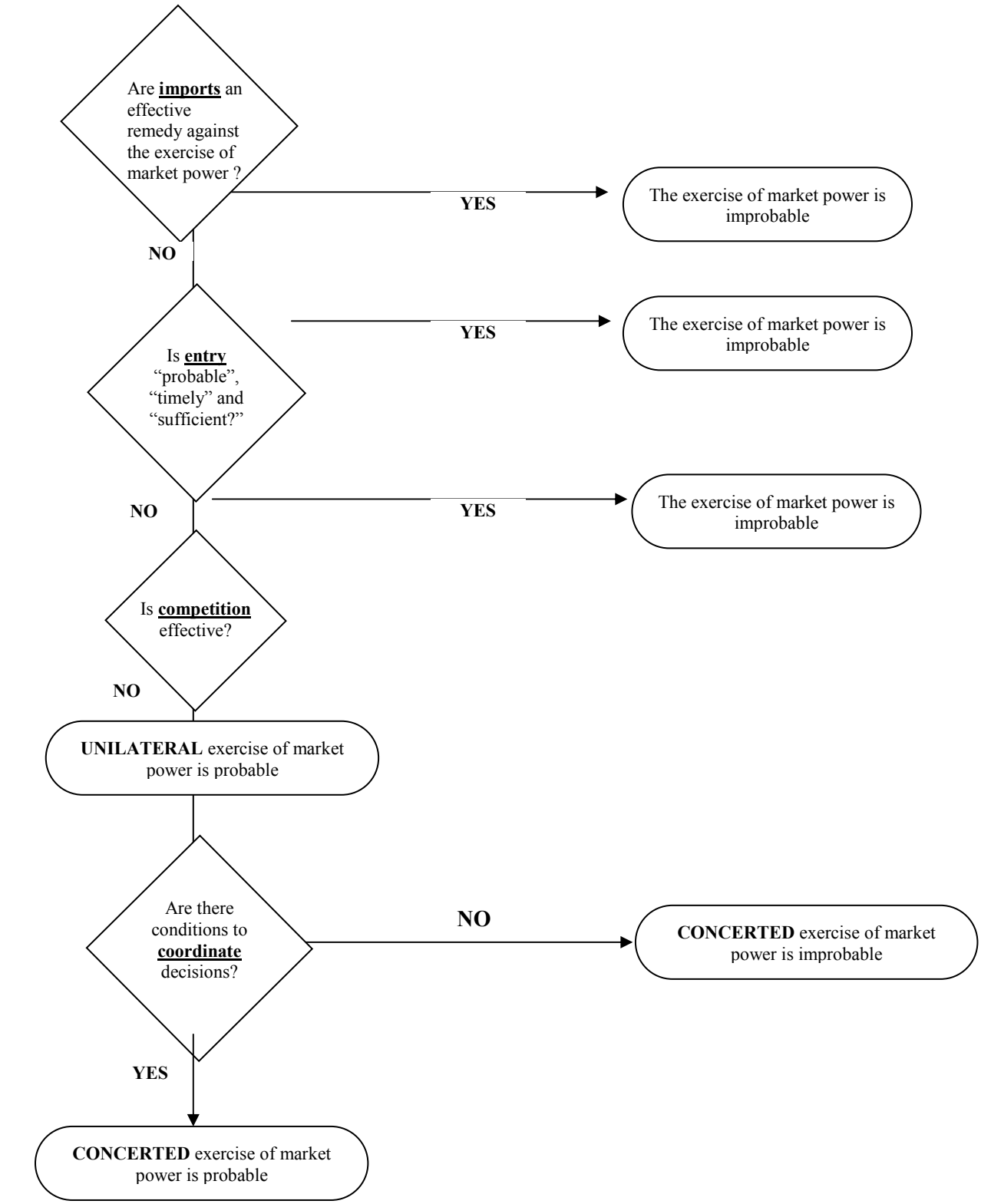
ANNEX I

Chart A:
The Stages for Economic Review of Concentration Acts



ANNEX II

Chart B:
Detail of Stage III – Exercise of Market Power



ISRAEL

This contribution illustrates the way in which the Israel Antitrust Authority (hereinafter: "**IAA**") has been managing complex mergers in recent years. While the IAA reviews in average over 200 mergers per year, it is clear that some mergers are more complex than other. Merger complexity, however, may stem from different aspects in the merger, depending on case specific factors related to core substantive competitive concerns. These factors are influenced by circumstances ranging from the identity of the merging parties and type of transaction to the regulatory landscape and other dynamic market features. On top of these factors, other issues that go beyond the substantive competitive concerns, such as tight timetables, large scale data analysis and non cooperative market players could make any given merger review process even more difficult. The purpose of this contribution is to depict how the IAA approached two particular mergers while emphasis is given to the above mentioned facets of complexity. The contribution continues as follows:

First, a general legal framework that describes the merger review process by the IAA is provided. Second, we offer an overview of the **Dor Alon – Sonol** merger case which involved a large scale data analysis and raised substantive competition concerns. The third and last section focuses on the review process of a merger in the dynamic telecom market between Bezeq and its subsidiary D.B.S (satellite multi-channel broadcast company).

1. Merger Review by the IAA – General Legal framework

Merger control constitutes a focal part of the IAA's mission to prevent the formation of market power that might be detrimental to competition. The merger review process is carried out by the in-house economic department which comprises of 12 economists. It is regulated under the Restrictive Trade Practices Law 5748 of 1988 (hereinafter: "**the Law**") and its corresponding regulations. During 2006, the IAA handled 230 merger notifications and issued 219 decisions. Most merger notifications were approved without conditions, approximately 10% were approved under conditions and only three mergers (approximately 1.5%) were blocked.

The term "merger" is broadly defined by the Law as including one or more of the following transactions:

- Acquisition of the essential assets of a company by another company;
- Acquisition of shares in a company by another company that confers on the purchasing company more than one quarter of the nominal value of the share capital issued at that time, or of the voting rights;
- Right to appoint more than one quarter of the board of directors;
- Right to participate in more than one quarter of the profits of the company.

The above applies whether the acquisition is direct or indirect or by means of contractual rights and applies on transactions with similar results.

The definition is interpreted broadly to include all transactions that are likely to establish an affinity or to significantly reinforce an affinity between the mechanisms for taking business decisions of two or more entities.

In terms of timetables, the Law establishes a review period of thirty days, during which the General Director is required to reach a decision. The period can be extended by the Antitrust Tribunal or when the consent of the merging parties is granted. If the General Director does not decide within the prescribed time period, the merger is deemed to be compatible with the Law. Merging parties must obtain the approval of the General Director *before* the transaction is executed.

Merging parties must submit a merger notification in the event that one of the following conditions exists:

- As a result of the merger, the share of the merging parties in the overall manufacture, sales, marketing or acquisition of a particular asset and a similar asset or provision of a particular service or a similar service is in excess of fifty percent;

- The joint sales volume of the merging parties according to their balance sheets for the year preceding the merger, is in excess of 150 million NIS (approximately 35 million USD); the sales volume of at least two of the merging parties is in excess of 10 million NIS (approximately 2.5 million USD) each and the combined sales volume of all the merging parties is in excess of 150 million NIS.

- One of the merging parties is a monopoly.

The General Director has the power to block a merger if it raises a reasonable concern of material damage to competition or to the public. The General Director can clear the transaction or approve it under conditions. Any decision of the General Director is subject to an appeal before the Antitrust Tribunal. Rulings of the Antitrust Tribunal are subject to an appeal before the Israel Supreme Court.

2. Overview of a Complex Merger in the Fuel Market: Dor - Alon Sonol Merger Review

2.1 Outline

In November 2005, the IAA blocked a merger between two major competitors in the import, marketing and distribution of oil distillates. The parties, Sonol Israel Ltd. (hereinafter: "**Sonol**") and Dor-Alon Energy in Israel (1988) Ltd. (hereinafter: "**Dor-Alon**") are the third and fourth largest competitors in the sale of benzene and diesel oil through gas stations. The IAA's decision was successfully challenged before the Antitrust Tribunal but reversed again by the Supreme Court which upheld the IAA's view. The following is an overview of key issues which characterize the merger review process and illustrate the main challenges and complexities with which the IAA had to cope.

2.2 Summary of market features

The Israeli fuel market used to be divided between three companies (Paz, Sonol and Delek) while the Government closely monitored their activity. Today, there are only four dominant players and several smaller players that compete in the margins.

The Israeli fuel market features an oligopolistic market structure, joint ownerships among competitors, high entry barriers and substantial governmental involvement and regulation.

In the late 1980's the Government launched a reform in order to enhance competition. In practice, although operative steps were taken, the expected results were not achieved and only few relatively small companies entered the market, the largest of which was Dor-Alon, one of the parties to the requested merger. Unlike the other entrants, Dor-Alon managed to enter the market and become a noteworthy nation wide competitor.

Dor-Alon's entrance to the market, symbolized the most significant achievement of the reform. It introduced significant changes to the Israeli fuel market and marked an important step in the opening of the market to competition. As a maverick, Dor-Alon presented higher rates of enlargement than its competitors and introduced innovative features that benefited consumers, such as convenience shops at gas stations, discount self-service refueling pumps and other promotions. By the time the merger notification was submitted, Dor-Alon was the fourth largest fuel company in Israel, following Paz, Delek and Sonol.

2.3 Substantive issues

The merger between Dor-Alon and Sonol raised concerns in the horizontal dimension in a number of specific markets (within the fuel market), namely, distribution of benzene and diesel to consumers (including consumers who possess refueling devices – namely institutional and corporate vehicle fleets) through gas stations as well as direct distribution of various types of distillates for industrial use.

Competition in the distribution of benzene and diesel to consumers through gas stations takes places (in parallel) in two markets, namely, competition on national level and competition on local geographic level.

Competition in the local geographical level depends on the conduct of individual gas stations in terms of pricing, promotions as well as quality of the facilities and services offered by each station. However, since the merging parties operate on a national scale, the competition in the national level had to be examined as well. On the national level, competition is shaped by the overall business strategy adopted by the fuel companies. The national strategy mainly concerns terms of contract with large institutional and corporate vehicle fleets that use refueling devices. Other elements include the choice of location for gas stations and further issues such as introduction of self-service refueling pumps and convenience stores. Moreover, fuel companies often offer nation wide price rebates and various types of promotions to enhance competition.

A main reason for the complexity of the merger review and the economic competition assessment is the fact that there were numerous relevant markets which had to be analyzed both on the local and national levels. Moreover, the tight timetables and the need to address each of the merging parties' efficiency gains arguments added to the overall complexity of the process. The merging parties argued in the merger notification to the IAA that the merger would yield efficiency gains and savings that would be passed on to consumers. According to the merging parties, the merger should be approved because the efficiency gains would eventually be passed on to consumers.

The merger review process required the IAA to obtain a substantial amount of information from the merging parties as well as from third parties. The information was used to evaluate the expected consequences of the merger on competition on both national and local levels. It also allowed the IAA to individually assess the merging parties' efficiency gains arguments and determine whether they could in fact justify approval of the merger.

The information obtained by the IAA included various types of data such as sales figures of all fuel companies in each relevant market, data on the precise locations of all gas stations in Israel as well as data on the prices charged at each station in different points in time (monthly resolution) over the five preceding years. The data were processed and analyzed by the economic department in order to cope with the substantive issues on which the merger review focused, including:

- Identification of the exact markets in which there might be a competitive concern and definition of those markets;

- Evaluation of the overall level of competition between fuel companies in the national and local levels in each and every relevant market and examination of the way in which competition takes place in practice. For this purpose, it was necessary to find out, for instance, whether promotions are offered only in specific areas or nation wide; whether the merging parties adopted a nation-wide policy concerning the location of gas stations, their standard of service or their appearance; whether the merging parties adopted a nation-wide policy concerning self-refueling services and convenience shops;

- Assessment of the expected effect the merger between Dor-Alon and Sonol would have on competition on the national and local levels;

- Assessment of the effect on competition Dor-Alon had as a maverick in the fuel market both locally and nationally. The examination included an extensive statistical comparison of pricing patterns in areas where Dor-Alon operated to areas where it did not operate alongside sample tests that illustrate the changes in prices in selected locations. In addition, historic price levels were compared to present price levels in order to determine whether the intensity of competition changed throughout the years, from the time Dor-Alon entered the market till it became the fourth largest fuel company;

- Identification of the relevant geographical areas in which the competition is likely to be affected by the merger Dor-Alon and Sonol and an estimation of the above effect on competition in those areas;

As indicated above, the IAA reviewed the efficiency arguments that were presented by the merging parties. In principle, the burden of demonstrating that efficiency gains justify the merger lies on the merging parties. This burden is considerable since the parties need to demonstrate that the efficiencies stem directly from the merger and that they could not be otherwise attained. In addition, the parties must show that the efficiency gains would be transferred to consumers so that the overall increase in consumer welfare would outweigh any potential adverse effect on competition.

At the conclusion of the merger review the IAA demonstrated that the merger raised competitive concerns in the following markets:

- Distribution of benzene and diesel through gas stations to standard consumers in around forty separate local geographic areas;

- Distribution of benzene and diesel through gas stations to small vehicle fleets (up to 200 vehicles) possessing refueling devices (on a national level);

- Distribution of benzene and diesel through gas stations to large vehicle fleets (over 200 vehicles) possessing refueling devices (on a national level);

The final decision to block the merger included a comprehensive and detailed competition assessment based on the concern over oligopolistic collusion in markets where the number of competitors declines from four to three, while there are other competitors competing in the margins.

It is not very often that mergers are blocked under circumstances where the merger does not create a monopoly; aggregate market share of the merging parties is less than 50% and other major competitors are active in the market (e.g. Paz and Delek).

The IAA had to base its decision on a comprehensive economic analysis before the Antitrust Tribunal and later on before the Supreme Court.

Nevertheless, the findings of the economic assessment in combination with specific market features (which apply to the specific relevant markets and to the fuel market at large) in terms of structure, regulation and history, have led the IAA to the conclusion that the merger would be detrimental to competition. Among the main features were the elimination of a maverick, a record of poor competition as well as the presence of facilitating practices which were expected to intensify as a result of the merger.

The IAA's conclusion was that the degree of competition which was finally achieved (following the entrance of a maverick) would be endangered. The concern was severe due to market characteristics which facilitate collusion, including a small number of competitors, extremely high entry and enlargement barriers, low elasticity of demand, homogeneous products, price transparency and a pattern of repeated small scale transactions. Another important consideration was that the multi-market contact effect could lead to mutual forbearance among the main fuel companies.

Had the merger been realized, the number of competitors would have been reduced from four to three and hence collusion would have been facilitated and the oligopolstic equilibrium would have grown more stable.

2.4 Procedural issues

The time factor was another key element in the merger review process. As noted, the Law grants a 30 days review period for the General Director to decide on merger notifications. Since the substantive merger review required more time due to the large scale data gathering and economic assessment, the IAA asked the parties' consent for an extension in the review period, which is customary in such complex cases. However, since the parties refused to grant their consent for prolongation, the IAA had to ask the Tribunal for prolongation. Eventually, less than 45 working days passed since the day the merger was notified until the decision to block the merger was issued. As a result, the review process was unusual in terms of workload and level of intensity.

2.5 Conclusion

Following the IAA's decision to block the merger, the parties filed an appeal, which was approved by the Antitrust Tribunal on 9 April 2006. However, the ruling was reversed by the Supreme Court on 15 June 2006. The Supreme Court's ruling, issued by Chief Justice Barak, Justice Procaccia and Justice Arbel, upholds the IAA decision to block the merger, due to the importance of preserving competition among four

players in the fuel market. The detailed decision takes into consideration the adverse effect the merger would have on the state of competition.

The Supreme Court further acknowledged the unique and professional role played by the IAA in enhancing competition[1]:

"A decision of an authorized entity that is brought before the antitrust tribunal should be examined based on the assumption that it was made with the best professional judgment and that it falls under presumption of regularity. This is especially true when it comes to the General Director of the IAA who is a professional entity per excellence, appointed by the government, and who is in charge of highly professional staff with expertise in different areas, including law and economics. The IAA has vast and thorough theoretical knowledge in various fields of antitrust, as well as considerable experience accumulated in years of intensive enforcement activity. The powers of the General Director of the IAA are very broad, and the knowledge and expertise which are in her possession are of unique importance".

3. Overview of a Complex Merger in the Telecom Market: Bezeq – D.B.S Merger Review

3.1 Outline

Bezeq - The Israel Telecommunication Corporation Ltd. (hereinafter – **Bezeq**) is the incumbent telecom company in Israel which operates in all fields of fixed and mobile telephony and is a declared monopoly in fixed telephony and broadband access facility.

D.B.S Satellite Services (1998) Ltd. (hereinafter – **D.B.S**) is a multi channel satellite broadcasting company that offers multi channel pay TV services via direct broadcast satellite technology. The latter is one of two multi-channel pay TV companies that operate in Israel, the other being HOT cable company (hereinafter – **HOT**). Bezeq holds 49.8% of D.B.S shares.

The merger transaction would have resulted in Bezeq increasing its holdings in D.B.S from 49.8% to 58% and thus gaining control over the company. The merger consisted of both vertical and horizontal aspects in terms of its effect on competition.

3.2 Substantive issues

The *horizontal* aspect of the merger stems from the fact that Bezeq's broadband access infrastructure constitutes a potential competition to the direct broadcast satellite technology infrastructure used by D.B.S. The underlying reason is that telecom companies can upgrade their broadband access infrastructure to an infrastructure that is compatible with Internet Protocol TV (hereinafter – **IPTV**) multi channel broadcasting technology. A merger between Bezeq and D.B.S rules out the pending entry of Bezeq as an independent multi channel Pay-TV player, using IPTV, and leads to the elimination of potential competition and gives rise to adverse effects on competition.

IPTV broadcasting technology enables multi channel broadcasting over broadband access facility (ADSL, optic fibers or cables) within a closed and synchronized network that assures the quality and availability of the broadcasting to subscribers that obtain a designated Set-top Box (hereinafter - **STB**). IPTV broadcasting technology is distinct from broadcasting over the internet because the latter is inferior in terms of quality, security and accessibility to end users. Broadcasting over the internet is usually less accessible to end users who prefer viewing through television sets rather than through computers. IPTV broadcasting disadvantages also include lower visual quality and frequent interruptions.

[1] Justice Procaccia, Israel Supreme Court, 3398/06 IAA v. Dor-Alon - Translation of paragraph 26

In the horizontal dimension, the merger raises a significant competitive concern because it would reduce the number of competitors in the market for pay TV multi-channel broadcasting services infrastructure from three to two as explained hereunder:

If the merger between Bezeq and D.B.S will not take place, there are likely to be three competing infrastructures for pay TV multi-channel broadcasting services, namely, HOT cable infrastructure, D.B.S satellite infrastructure and Bezeq IPTV infrastructure. These infrastructures could serve all content providers that operate in Israel, including the three main competitors in the content market, namely HOT content company, D.B.S and Bezeq.

On the other hand, if the merger between Bezeq and D.B.S will take place, it would strengthen the duopoly structure which exists in the multi-channel pay TV market – both in the infrastructure market and in the content market.

The *vertical* aspect of the merger relates to the fact that once Bezeq would upgrade its infrastructure to accommodate IPTV technology, it could potentially serve D.B.S and its competitors who would be able to transfer content over Bezeq's infrastructure.

Despite the fact that Bezeq already has stakes in D.B.S, a significant adverse effect on competition would result if Bezeq would gain full control over D.B.S. The reason for that is that the merger would increase Bezeq's ability to effectively prevent D.B.S' competitors from gaining access to its broadband infrastructure. This concern is acute given the fact that Bezeq's infrastructure is likely to be the single IPTV infrastructure in Israel, at least in the foreseeable future.

As a regulated monopoly, Bezeq is obliged to grant equal access to its infrastructure to various content suppliers, including those who will be interested in IPTV broadcasting. Subsequently, the main concern about the merger was not that Bezeq will explicitly deny access to its infrastructure from D.B.S' competitors, because that would be an infringement of it regulatory obligations. Rather, the concern was that Bezeq would charge high access prices to its infrastructure from all content suppliers (including from its own subsidiary – D.B.S). As long as the high prices are charged equally, Bezeq could effectively prevent access from its potential competitors and circumvent regulatory obligations.

The economic assessment concluded that Bezeq and other shareholders in D.B.S would benefit from discouraging D.B.S' competitors from gaining access to Bezeq infrastructure. However, as long as Bezeq does not control D.B.S, other shareholders have no incentive to pay inflated access fees to Bezeq in order to neutralize potential competition which does not concern them. The underlying reason is that unlike Bezeq, who is indifferent to transferring money from its subsidiary accounts to its own accounts, other shareholders will be sensitive to such payments and might stand in Bezeq's way and refuse to pay inflated access rates. These shareholders function as a restraining factor due to their ability and likely motivation to frustrate any attempt by Bezeq to charge artificially high access prices for its infrastructure.

Consequently, the only way for Bezeq to effectively neutralize potential competition in the market is to gain full control over D.B.S and eliminate *de facto* its dependence on other shareholders in D.B.S. In light of the above, a merger between Bezeq and D.B.S is likely to be detrimental to competition also in the vertical dimension.

The complexity associated with the merger review process was twofold:

- *First*, it was necessary to determine from a technological point of view whether Bezeq would at all be in a position that enables multi-channel broadcasting (which is a close substitute for broadcasting via satellite or cable) to be carried over its broadband infrastructure. This question

required an in-depth analysis of the technological aspects of the merger as well as an overview of relevant international experience concerning implementation of IPTV technology. For this purpose the IAA examined all the relevant literature dealing with the subject matter, including international studies and surveys. In addition, questionnaires were prepared and distributed to telecom suppliers and producers of telecom equipment in Israel and abroad. Moreover, the IAA consulted with foreign competition authorities, (including Denmark, Norway and Belgium) as well as with the Israel Ministry of Communications which has profound expertise as the designated regulator of the telecom sector.

- *Second*, a close examination of the Bezeq's strategic business considerations and incentives had to be carried out. The question of whether Bezeq is likely to upgrade its infrastructure so it would be compatible with IPTV had to be addressed. A comparative study of the international experience in Europe, North America and Asia demonstrates that the vast majority of telecom incumbent firms (parallel to Bezeq) offer, or alternatively are about to offer, IPTV services. Moreover, the IAA obtained internal corporate documents from Bezeq which clearly indicate that Bezeq was planning to upgrade its infrastructure. The IAA further examined Bezeq's incentive structure *vis a vis* the costs associated with upgrading the infrastructure. To this end, special emphasis was given to the fact that Bezeq is under growing pressure to offer "triple play" packages (e.g. multi-channel pay TV, broadband internet and fixed telephony) which is already being offered by its competitor HOT. From Bezeq's perspective, offering "triple play" packages is needed to preserve its dominant market share and discourage its own clients from switching to HOT. Moreover, "triple play" packages are expected to enhance corporate growth and boost Bezeq's corporate income flow.

3.3 Conclusion

In December 2006, the IAA blocked the merger following an analysis of the state of competition in the multi-channel television market and due to the pending entry of a new internet protocol broadcasting technology (IPTV). The IAA's economic assessment concluded that the merger would be detrimental to competition in both vertical and horizontal aspects of the multi-channel broadcasting market. One of the main concerns was that the merger will prevent competition in the market between a third platform and D.B.S.

Under current market conditions, elimination of potential competition would have led to adverse effects on consumers. The merging parties did not manage to present any significant efficiency gains that could justify the merger. In light of the above the IAA decided to block the merger. Subsequently, an appeal has been filed on behalf of Bezeq to the Antitrust Tribunal.

RUSSIAN FEDERATION

The Federal Law "On Competition Protection" came into effect on October 26, 2006. This law incorporated two laws that existed prior this date: the Federal Law "On Protection of Competition in Financial Services Markets" and the Law of the RSFSR "On Competition and Limitation of Monopolistic Activity in Commodities Markets". The provisions of two previous laws were not formally included in the new Federal Law "On Protection of Competition". Instead, a number of new fundamental Russian antimonopoly legislation tools were introduced. In addition, there were conceptual changes to the approaches of a number of key philosophies, as well as modifications to judicial and procedural instruments that existed prior to the new Federal Law.

Chapter 7 "State Control over Economic Concentration" of the new Law includes provisions pertaining to pre-merger and post-merger notification for:

- the merger of commercial organisations or the consolidation of one commercial organisation with another commercial organisation or the incorporation of a commercial organisation,
- the merger of financial institutions or consolidation of one financial institution with another financial institution,
- transactions with shares, the property or rights of commercial organisations, or
- transactions with stocks, assets and rights of financial institutions.

Acquiring preliminary approval of the antimonopoly authority is necessary only in those cases involving a purchase of a blocking share holding (25 %), a controlling share holding (50 %) and a package of shares excluding the opportunity to block decisions of the shareholder by third parties (75 %). The threshold value for preliminary approval of share transactions is increased to 3 billion rubles (88 million euro), according to the new Law and the new amount for notification of share transactions is now 200 million rubles (5,9 million euro).

The new Law reduces the number of transactions that are subject for approval and thus the workload for the antimonopoly officers will be lessened. It is expected that with this reduced burden on antimonopoly officers, a simultaneous increase in the quality of the antimonopoly procedures, and consequently the state antimonopoly control as a whole, will occur.

In order to simplify the antimonopoly control process, to make it more transparent and clearer for the economic entities, the procedures for consideration of pre-merger or post-merger notifications by the antimonopoly authorities as well as the list of documents that have to be submitted to the antimonopoly authority are stated directly into the Law (Articles 33, 34, 35 and Article 32).

According to the Item 5, Article 32 of the Law, the individual submitting the notification has to file documents defining the subject and content of the deal. Also, the essential conditions of the deal as well as other documents together with pre-merger or post-merger notifications must be submitted.

According to the Article 33, the Federal Antimonopoly Service is obliged to examine the application and to notify the applicant of its decision within 30 days. For the purpose of ensuring a consistent and standardised approach, the Antimonopoly Authority adopted the "Procedure for Conducting Analysis and Appraisal of the Competitive Environment on Commodity Markets by the Order of FAS Russia" - №108 of 25 April 2006. This document was adopted within the framework of the execution of the old Law of the RSFSR "On Competition and Limitation of Monopolistic Activity in Commodities Markets" but it is still valid to the extent that it is appropriate to the new Law.

The Procedure includes the determination of the time-frame, product and geographic boundaries, structure of seller and buyers, the volume of the market commodity resources, concentration level of the market and share of the economic entities on the market as well as barriers to entry to the market.

During the implementation of control activity over the processes of economic concentration in actual situations, the opportunity to issue structural instructions in addition to behavioral instructions will appear.

This was practically impossible according to the old Law of RSFSR "On Competition…"

For instance, in the first half of this year FAS Russia examined the petition of the «United Company RUSAL Limited» on purchasing 100% voting shares of «RUSAL LIMITED» and «SUAL INTERNATIONAL LTD» equity capital.

It was supposed that as a result of the deals, «United Company RUSAL Limited» might be able to restrict competition on the global markets of bauxites and alumina by reducing a number of economic agents that are not members of the same group of persons.

Considering the deal, FAS Russia carried out a survey of consumers - about 90 economic agents that cover over 95% of domestic consumption of aluminum products. FAS Russia has requested official opinion of the proposed deal from the Russian Ministry of Economic Development, Ministry of Industry and Energy, Ministry of Defence and the Security Council. The deal was discussed at the meeting of the Presidium of the FAS Russia Collegium.

Under Article 33 of the Law «On Competition Protection», information about the deal was placed on the official FAS Russia site enabling FAS to obtain opinions of all interested persons.

Working on the case, FAS Russia came to a conclusion that abolishing 10% import duty on unprocessed aluminum is a necessary measure which will advance competition and ensure additional protection of consumer interests.

As exercising the deal would lead to positive social and economic impact, (under Article 13 of the Law «On Competition») FAS Russia approved the petition and issued determination on undertaking certain actions that would improve market competition.

It is estimated that the deal will have the following positive social and economic impact:

- - Investment concentration, technical re-equipment, social and environmental benefits;
- - Increased general competition conditions on the world' markets;
- - Technical advancement, production of high-technology alloys based on primary aluminum;
- - Wider product range, additional service rendering opportunities.

Determinations issued to the United Company, specify, in particular, the following informational and behavioral requirements: The Company should:

- Continue executing all signed contracts according to the contract terms and conditions, including the contracts on the state defense procurement and federal target programmes.

- Not take actions (or fail to take actions) if it leads to production discontinuation or restrictions (in particular, as a result of company reorganisation, liquidation, bankruptcy or termination of its operations).

- Ensure non-discriminatory conditions to all consumers and suppliers.

- Satisfy the needs of domestic buyers (on the Russian Federation market) provided there is appropriate production capacity.

- On a regular basis inform FAS Russia about prices, production volume, product supplies and export, position of the group of persons, acquisition of assets, and sales policy.

For the first time in the practice of the Russian antimonopoly authorities, FAS Russia issued determinations that provide for using the price quotation mechanism. The United Company has undertaken obligations that Russian consumers will obtain aluminum at the LME (London Metal Exchange) price with maximum 4-5% margin which matches the established business practice. The margin for foreign consumers is 8-10%.

The price on aluminum alloys and wire will be fixed in such a way that that product premium which is a price component on top of LME (London Metal Exchange) price and transportation costs should not be increased for more than 5% per month.

As additional measures of protecting the interests of the Russian consumers, the United Company is instructed to study the issue of organising aluminum trade on the Russian exchange houses for the local currency - Rubles, as well as to continue investing in aluminum foil improvement.

To solicit the opinions from various economic entities and other concerned parties, a number of Expert Councils were established by the Russian FAS. At present such councils are in the metallurgic sector, the gas market, the construction and construction material industries, the public utilities sector, the education sector as well as in the sphere of unfair competition. The Expert Councils have the status of a "consulting – advisory board" where representatives of the FAS Russia and other interested authorities, economic entities working on the particular markets, associations of enterprises and scientific institutes participate. The main tasks of the Expert Councils activities are the following:

- provision of assistance in the promotion of competition in the particular sphere;

- participation in the development and examination of legislative acts as well as scientific and methodological basis for the application of competition law;

- assessment of completed appraisals of competitive environments and a suggestion and recommendation for competition development in the specific markets.

Article 31 of the new Law sets a special order in relation to facilitating the processes of reorganisation and it pertains to the control of deals that are within a group of persons. Publicity forms the basis for this process. In particular, a group of persons is permitted to undertake transactions inside the group without

the preliminary approval of the antimonopoly authority if the information about this group of persons is available for public viewing on the Internet.

Besides, a so called “Decision-making mechanism at purchase of shares of economic entities that manufacture production of strategic purposes” has been elaborated be the FAS Russia. It envisages that simultaneously with the analysis of competition aspects of the transaction the antimonopoly authority carries out the analysis of other aspects of the transaction, in particular, the consequences of the realisation of the transaction for the national security of the Russian Federation.

The process is very simple for businesses and the results to date have already confirmed the demand for such an approach. At present, approximately one hundred companies have taken advantage of this opportunity and information about them is available on the official web-site of the FAS Russia.

SLOVENIA

1. Introduction

Assessing data analysis in complex merger cases represents quite a challenge for our Office. On one hand we have major problem acquiring the necessary data because of our inadequate legislation on the other hand a limited financial and human resources are of concern. Furthermore, as our economy is very small, the trading partners, customers or suppliers of the merging parties are exposed to the risk of retaliatory measures. That makes it very difficult to obtain certain information.

However, our Office has around one to two second-phase procedures per year, where a detailed analysis is performed. The Office mainly requests data from the merging parties, but also from third parties or institutions, which collect data and statistically process them.

2. Obtaining, collecting and processing data sets and use of external consultants

The legal basis for collecting information in merger cases is very unsatisfactory. The Office has no possibility to sanction the addresses of its request for information, if they do not reply or if the submitted replies are incomplete. That is why it is often very difficult to collect all the information that is needed to do qualitative analysis.

However, in the legislative procedure there is a proposal for a new competition act, where a provision on sanctions for non-cooperation is included. The proposal states that the Office may impose a fine up to 50.000 EUR, if the undertaking in response to a request for information supplies incorrect, incomplete or misleading information or does not supply information within the required time-limit. Afterwards the Office would set a new time-limit for the supply of requested information and if the undertaking still refuses to cooperate, the Office will continue to issue fine decisions until the level of fines reaches 1% of the total turnover in the preceding business year. This regulation will certainly facilitate the gathering of information for the necessary assessment of merger cases.

When the merger relates to technology markets, such as telecommunication, our Office cooperates with the Slovenian regulator (the Post and Electronic Communications Agency of the Republic of Slovenia; hereinafter: the Agency). An example of cooperation between the Office and the Agency was, for example, a merger case, where two large cable operators merged (Ljubljanski kabel and UPC Telemach). The Agency submitted documents and information, on the basis of which the Office to estimate the current conditions on the market of access to the cable communication network, the transmission of radio and television signals via the cable network and the access to internet, and data transmission over the cable network.

Furthermore, in some specific sector like the banking sector, there is an ongoing cooperation between the Bank of Slovenia and our Office, in the course of which also a training programme, where the specific characteristic of the banking market was explained, was organized.

Certain expertise to handle complex merger cases can be acquired also by the appointment of an expert. Article 189 of the General Administrative Procedure Act states: “If for establishing or evaluating some fact which is necessary for the resolution of the matter expert knowledge is required, which the

official who conducts the proceeding does not have, expert evidence shall be taken." The Office appoints a person or organizations which possess expert knowledge necessary for elucidating a state of affairs.

3. CASE: UPC Telemach and Ljubljanski kabel

As noted before an example of cooperation between the Office and Agency is a merger case between two larger cable operators.

In making the assessment the Office took into account the valid regulatory framework in the field of electronic communications in Slovenia and the above mentioned data submitted by the Agency.

In assessing the effects of the merger on the market of access by alternative operators to the cable communication network of the company Telemach, the Office established that the company Telemach may no longer behave on this market independently from alternative operators and competition. It is obliged on the basis of the regulatory framework alone to reach agreements with the operators that would wish to have access to its network. This means that even following the concentration, the company Telemach will not have the opportunity to unilaterally prevent efficient competition on the market of access to the cable communication network.

Furthermore, the Office established that despite some technical restrictions that limit complete interchangeability of cable and xDSL television from the customer's point of view, data convincingly confirm an increasingly larger interchangeability of these services and a strong competition pressure on cable operators by companies SIOL and T-2 to the extent that the service market in question may be defined in broader terms. In all larger cities where there are available cable television services by the company Telemach, there are also available services by ADSL TV companies SIOL and T-2, and in Koper, Kranj and a part of Ljubljana also IP TV services are available via the optical network of the company T-2. Quality and prices of these services are completely comparable to the services of the company Telemach. In these areas a customer would be able to change operator without any limitations, if the price of TV subscription increased. The Office therefore decided to assess the consequences of the concentration on the entire national market.

In the case of broadband internet access the situation on the market also changed considerably. It can be said that there is an increasing interchangeability of services and a strong competition pressure on cable operators by the company SIOL and other internet providers via the ADSL technological platform.

On the basis of the aforementioned the Office concluded that the merger between the companies Telemach and Ljubljanski kabel will not prevent or distort efficient competition on the market of access to the cable communication network, the market of radio and television signal transmission via the cable network and the market of services of access to internet via the cable network, since in larger cities, where the concentration participants are present, there is competition at the level of the xDSL technological platform, through which services of access to internet and radio and television signal transmission are also available.

The Office therefore decided that it would not object to the concentration and that it is compatible with the competition rules.

4. Conclusion

The Office is aware that an economic knowledge is crucial for the assessment of complex merger cases and moreover, the economic approach is also inevitable for managing the antitrust cases. The importance of the economic approach is also reflected in the structure of the employees, as the majority has economic education and occupies the senior positions.

BIAC[1]

1. Introduction

The Business and Advisory Committee (BIAC) to the OECD appreciates the opportunity to submit these comments to the OECD Competition Committee's Working Party No. 3 (WP3) for its roundtable on "Managing Complex Merger Cases: How Agencies Deal with Complex Data Analysis, Surveys and Market Studies, and Obtain the Necessary Expertise for Complex Substantive Issues (e.g. IPRs, Technology Markets, etc.)."

2. Use of Economic Data in Complex Merger Analysis

2.1 Role of Economic Evidence Generally

The potential for economics to inform agency analysis of mergers has expanded greatly in recent years. This progress is attributable to both an advance in the understanding of the role of economics in merger evaluation, as well as improvement in techniques available to evaluate potential competitive effects.

These advances, however, have not enabled economics to become a primary tool for merger analysis under any scenario. The analysis of potential competitive effects requires the consideration of a wide range of issues, including among other factors: market definition and market structure, historical growth of the industry and its participants, cost structure of participants, influence of technological development, pace of innovation, presence of intellectual property rights, level of product differentiation, interactions among competitors, the ability to gain productive and dynamic efficiencies, actual entry, potential entry, and supply-side substitution. Even the most robust economic models cannot account for this range of important considerations.

A holistic approach is not only warranted, but is the only means by which an agency can assure itself that a correct judgment is being made about the potential effects of the transaction. Because the cost of Type II error is significant (*i.e.*, depriving consumers of the potential synergies of a merger), enforcement decisions should not turn on a single piece of evidence or economic observation.

In other words, while economics at times can help to provide assurance that an analysis of the facts is accurate and can help to bolster a conclusion regarding competitive effects, economic analysis should not be used as the sole basis for concluding that a transaction will (or will not) lead to anticompetitive effects.

Also, economic analysis of complex mergers requires sufficient capacity and experience by an agency in order to be a useful and meaningful exercise. While we strongly support the application of economic principles to the substantive analysis of mergers by all reviewing agencies, BIAC cautions against undue reliance on economic modelling and merger simulation by agencies that lack substantial economic capacity or have limited history in conducting such analyses.

Rigorous factual analysis is a crucial component of merger analysis. Economic evaluation of mergers that is not grounded in *sound factual analysis* is without value. Parties to merger transactions at times have witnessed the advancement of an economic theory of harm that incorporates a raw misunderstanding of the

[1] Paper prepared by John M. Taladay and Calvin S. Goldman, Q.C. with substantial contribution from BIAC Competition Committee members.

facts. Often, this misunderstanding has been promoted by an opponent of the transaction (often a competitor) who may have unique motivations to see the deal collapse or who may have a different set of circumstances (*e.g.*, different production techniques or cost structure) from the merger parties. For this reason, BIAC recommends that agencies thoroughly evaluate factual assumptions of any economic model and carefully consider the applicability of those assumptions to the merging parties. Best practice would incorporate the use of independent analysis, third-party expert consulting, physical inspection, or other means of factual verification of disputed or uncertain facts. Such measures have been adopted, for example, in several cases before the European Commission, although the practice is not uniform.[2]

2.2 Limitations on Use of Merger Simulation Models

Enforcement history has shown that very few mergers lead to a potential for anticompetitive effects. The structural preconditions for anticompetitive effects are present in only a small fraction of notified transactions. For example, in the EC only 13 Phase II proceedings were initiated in 2006 out of 356 notifications. In the U.S., only 45 second requests were initiated out of 1,746 notifications. An even smaller number of notifications led to actual enforcement efforts. Thus, the use of detailed economic analysis normally should be reserved to that small subset of mergers that provides a structural framework that implies a presumption of anticompetitive effects.

Even within this framework, the limitations on the use of economic models should be recognized. A number of the frailties of economic analysis in general, and merger simulation models in particular, are outlined in a paper prepared by Werden, Froeb and Scheffman.[3] Among these limitations are:

- A scarcity of evidence verifying the accuracy of merger simulation in predicting the effects of actual mergers;
- The critical role of the modelling process, which is described as "at least as much art as science";
- The potential bias resulting from the beliefs, qualitative evidence and data used in preparing the model;
- The need for a proper "fit" between the factual setting of the industry and the structural model being employed; and
- Modelling error stemming from inaccurate assumptions or sampling error.

These limitations, in large part, provide yet another reminder of the critical nature of sound factual analysis as an underpinning to the economic analysis of mergers.

In evaluating the role of economics in antitrust analysis, then-Director of the FTC Bureau of Competition Dr. Salinger similarly notes that economics must fulfil a dual role in case evaluation. It must simultaneously subject the theory of the case to an "economic sense screen,"[4] while at the same time, it

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2 *See, e.g.*, Comp M.4403 Thales / Finmeccanica / Alcatel Alenia Space & Telespazio at §§ 17 to 22; Comp M.3687 Johnson and Johnson / Guidant at §§ 70, 105.

3 Gregory J. Werden, Luke M. Froeb and David Scheffman, *A Daubert Discipline for Merger Simulation*, 18 ANTITRUST ABA 89 (Summer 2004).

4 Michael A. Salinger, *The Legacy of Matsushita: Has This Thing Called Economics Gotten Way Out of Hand?*, Loyola University School of Law Institute for Consumer Antitrust Studies (Sept. 29, 2006), at 2. Although Dr. Salinger was addressing the role of economics in civil litigation, we believe the cited principles are equally apt for merger analysis.

must avoid mistaken inferences which can be "especially costly because they chill the very conduct the antitrust laws are designed to protect."[5]

An additional limitation that should be recognised is the quality of the merging parties' data itself. This can often be a significant impediment to producing a meaningful analysis of potential merger effects. Merging parties, who obviously have a significant interest in putting forth an affirmative economic analysis (assuming favourable results), often find that they are unable to advance such an analysis (despite favourable results) because the data is not of requisite quality. It should be remembered that the company's purpose in maintaining the data is quite different from the economist's purpose. Company X's data may be maintained principally for accounting, assignment of internal accountability, management of personnel or other reasons that do not lend directly to a meaningful analysis of industry, or even Company X's, dynamics.

An interesting example is provided by an actual merger among two large software manufacturers. As a means of ensuring that employees were adhering to limits on their authority, the Acquirer (like many companies) had a policy that required higher-level approval for higher-level discounts. A sales representative seeking authorisation for a discount above a certain level had to indicate the reasons for the discount (*e.g.*, size of customer, length of maintenance agreement, etc.). One data field requested that the sales representative indicate the identity of the competitor. From information on the forms, it would be conceivable to conduct an economic study examining the degree to which the level of discount was dependant upon the identity of the competitor. It would also be conceivable to evaluate the degree to which the elimination of a competitor might impact a customer's ability to obtain a larger discount. It might even be conceivable to control for other relevant factors such as the size of the customer, length of contract, etc.

Ultimately, however, the data was insufficient for meaningful analysis for two key reasons. Firstly, it became clear that the sales representatives – who were compensated by commission and whose key interest was completing a sale rather than maximising margin – were sometimes manipulating the forms in order to justify as high a discount as possible. Secondly, it also became clear that the information about the identity of the competitor was often wrong. Post-sales interviews with customers, who no longer had an incentive to hide the identity of the competitor, revealed that the Acquirer incorrectly identified its competitor in ***more than half*** of the cases. Thus, what at first appeared to be a potentially extremely meaningful database turned out to be useless. This realisation, however, occurred only as a result of thorough factual analysis.

Werden, *et al.*, recommend an approach for advancing the reliability of merger simulation analysis, suggesting that "every modelling choice in a merger simulation apt to matter significantly be accompanied either by some sort of justification or by a sensitivity analysis indicating its impact."[6] BIAC believes that this approach is warranted in merger review given the high potential cost of unnecessary enforcement or prohibition of mergers.

The most common economic model used for merger simulation has been the Bertrand oligopoly model, which assumes a single competitor interaction in which each competitor maximizes its short-run profit with price as the sold dimension of competition. This model estimates a price equilibrium based on game theoretics which can then be used, in the opinion of some experts, to predict a post-merger price equilibrium based on the altered competitive landscape. The model has been used most frequently in mergers of manufacturers of competing but differentiated consumer goods. The analysis often has been supported by scanner data from retail outlets such as grocery stores.

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5 *Id.,* citing Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 594 (1986).

6 Werden, *et al.*, *supra* note 1, at 90.

Froeb and Werden differ with Scheffman regarding the ultimate utility of Bertrand modelling for merger simulation: They believe that the model can be a useful predictor of post-merger pricing, while Scheffman believes it is an inadequate model of competition due to, *inter alia*, its failure to consider non-price competition. However, all three agree that an economist using the Betrand oligopoly model must also consider repositioning, entry, and retail-wholesale relationships.[7]

It is clear that no economic model can adequately address all relevant components of competition. At best – when the model comprises a "fit" with the industry, avoids modelling error and incorporates meaningful data – merger simulation can inform the analysis of potential competitive effects by providing some indication of the potential magnitude of these effects.

Even in this setting, however, it must be recalled that merger simulation models are never a precise measure of merger effect and are not calibrated to evaluate small changes. Modelling error and sampling error are ever-present risks and, for that reason, "(m)erger simulation predictions are *at best* reasonable, but rough, estimates of the likely effects of mergers."[8] Because of these two sources of potential error, "price increase predictions close to zero cannot meaningfully be distinguished from zero."[9]

2.3 Judicial Review of Economics in Merger Analysis

Economic analysis has become increasingly prominent in the judicial review of agency decisions regarding merger enforcement.

The European Court of Justice has closely scrutinised the application of economic principles to merger review. It has held that: "Whilst the Court recognises that the Commission has a margin of discretion with regard to economic matters, that does not mean that the Community Courts must refrain from reviewing the Commission's interpretation of information of an economic nature. Not only must the Community Courts, inter alia, establish whether the evidence relied on is factually accurate, reliable and consistent but also whether that evidence contains all the information which must be taken into account in order to assess a complex analysis and whether it is capable of substantiating the conclusions drawn from it" [10]

The European courts have also recognised the difficult challenge created by the need of the Commission to rely, at least to an extent, on the information provided by the merging parties and third parties. At the same time, the ultimate responsibility for ensuring the reliability of data is the Commission's. "Although, as the Commission stated at the hearing, the procedure for the control of concentrations does indeed rely to a large extent on trust, as the Commission cannot be required to ascertain on its own, in the slightest detail, the reliability and accuracy of all the information submitted to it, it cannot, on the other hand, go so far as to delegate, without supervision, responsibility for conducting certain parts of the investigation to the parties to the concentration, in particular where, as in the present case, those aspects constitute the crucial element on which the decision is based and where the data and assessments submitted by the parties to the concentration are diametrically opposite to the information

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7 *See,* ABA SECTION OF ANTITRUST LAW Brown Bag Program, *Whither Merger Simulation* (Jan. 29, 2004) (Froeb, Scheffman and Werden with Michael S. Becker, Moderator), at 1-2.

8 Werden, *et al.*, *supra* note 1, at 90. (Emphasis in original.)

9 *Id.*

10 Case C-12/03 P, *Commission v Tetra Laval*, judgment of 15 February 2005, at § 39.

gathered by the Commission during its investigation and also to the conclusions which it drew from that information."[11]

Recently, in *FTC v. Whole Foods*,[12] the U.S. Federal District Court for the District of Columbia evaluated the economic testimony of expert witnesses proffered both by the defendants and the FTC. First, the judge evaluated the testimony of an expert in consumer polling, Ms. Conway, who had conducted a consumer survey to support the defendants' market definition arguments. An FTC expert, Dr. Van Liere, attacked the survey methodology and procedures as fundamentally flawed. The Court agreed with Dr. Van Liere and disregarded the evidence produced by Ms. Conway.

At the same time, the Court evaluated the competing testimony of Dr. Scheffman (on behalf of the parties) and Dr. Murphy, two leading economists, with respect to the determinative issue of market definition. Dr. Murphy's analysis was based on a "natural experiment" and estimated the effect of competition between the merging parties (Whole Foods and Wild Oats) observed from the entry of Whole Foods in markets where Wild Oats was already operating. Ultimately, the court accepted Dr. Murphy's testimony (i.e., the court did not conclude that the analysis was unfounded as it had with Ms. Conway's testimony), but found it unpersuasive because the analysis:

- Evaluated the impact on Wild Oats margins rather than prices;
- Did not include the price and promotional strategies of competitors outside the FTC's asserted relevant market;
- Failed to consider the effect of market exit, which the court considered a more relevant metric of potential effect than entry;
- Failed to account for non-price promotional strategies; and
- Contained an inadequate number of observations to be reliable.

The *Whole Foods* case provides an illustration of the potential pitfalls of economic modelling as a means of estimating the potential anticompetitive effects of mergers. While the study may have been a useful tool for helping the agency to confirm its impressions about competition between the parties under one particular scenario (*i.e.*, within a market purposefully limited to Premium Natural and Organic Supermarkets), it was deemed insufficient as a basis for evaluating net competitive effects.

On the whole, the EC and U.S. judicial analysis of merger cases have relied heavily on economic analysis, particularly in recent years. The courts have held the agencies to a high standard in considering the economic basis on which the outcome was determined. These decisions highlight the need for careful application of economic analysis and the need to avoid overreaching (both by the parties and by the agencies) in applying economic modelling to merger decisions.

Under the Canadian *Competition Act*, the use of economic data in complex merger cases is very similar to that which takes place in the U.S. and EC, particularly in relation to issues such as relative market analysis, other qualitative considerations and market power and ultimately the threshold of market power. In addition, section 96 of the *Competition Act* provides for a statutory efficiency defence which

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11 Case T 464/04, *Impala v Commission* (annulment of the Sony / BMG merger decision), 13 July 2006, at § 415.

12 FTC v. Whole Foods Market, Inc. and Wild Oats Markets, Inc., No. 07-1021 (PLF), (D. D.C. Aug. 8, 2007).

received adjudicative interpretation and application in the *Superior Propane*[13] case. In that case, which was initially decided in 2001 (following a contested hearing which lasted for months), the Competition Tribunal found that the merger was likely to lead to a substantial prevention and lessening of competition (an "SPLC"), but applied an efficiency defence balancing exercise and found that likely gains in efficiency were greater than and offset the likely anti-competitive effects. The merger was allowed to proceed on that basis.

The then Commissioner appealed that decision to the Federal Court of Appeal, which overturned the Tribunal decision on the grounds that the Tribunal did not correctly account for all of the effects of the merger (specifically the impact of higher prices paid by those consumers who continued to use propane post-merger - also known as the "wealth transfer" from consumers to producers) and the case was sent back to the Tribunal.

The Tribunal, in its redetermination decision, cleared the merger again, this time adopting the "balancing weights" approach. The Commissioner at that time appealed again, but in 2003 the Court of Appeal dismissed the appeal and upheld the Tribunal's decision, endorsing the balancing weights approach. The Court of Appeal noted that this approach differed from the total surplus standard, and more specifically upheld the Tribunal's position that only the socially adverse portion of the wealth transfer plus the dead weight loss should count against the efficiency gains. In that particular case, the efficiency gains that were proved were about three times larger. Needless to say, complex financial, economic and expert evidence were provided and referenced throughout this lengthy process.

While consideration was given to the current Canadian standard in a consultative process that took place after the *Superior Propane* decision (which was initiated by Commissioner Sheridan Scott) there has been significant clarification of the Canadian position following the address given by Commissioner Scott on September 28, 2006 when she stated the following:

> *"While we will continue our work on efficiencies, and anticipate being able to provide greater guidance in the near future on what we consider to be the appropriate enforcement approach, I would like to share with you certain observations and principles arising from the work conducted to date.*
>
> *First, we do not consider that, in the short term, it is either desirable or advisable to seek amendments relating to efficiencies. While we believe that there remain areas of uncertainty with respect to the enforcement of the efficiencies defence, we will, at this stage, devote our attention to clarifying how we interpret our mandate, in view of the current statutory language and such case law as we have, and how we will pursue that mandate in practice.*
>
> *Second, we want to emphasize, as we make explicit in our Merger Enforcement Guidelines, that we do consider efficiencies claims when submitted. Robust and thoughtful submissions are important to us, offering insight into both the parties' motivation for the transaction as well as the potential synergies relevant to our assessment. We would urge your clients to bring those submissions to us early in as substantiated a form as possible, and not to be deterred by an unfounded notion that to do so is somehow an admission of anti-competitive concern.*

[13] *The Commissioner of Competition v. Superior Propane Inc.*, 2000 Comp. Trib. 15 (Reasons and Order); appeal allowed, [2001] 3 F.C. 185 (F.C.A.); 2002 Comp. Trib. 16 (Reasons and Order Following the Reasons for Judgment of the Federal Court of Appeal Dated April 4, 2001); appeal dismissed, [2003] 3 F.C. 529.

Third, a clear reading of the Act requires that we consider efficiencies in the course of our assessment as to whether to challenge a merger. As to section 96 specifically, we would not necessarily require recourse to the Tribunal in a case where the efficiencies resulting from the merger would clearly be greater than and offset any anti-competitive effects; rather, while our experience suggests that such cases are rare, we could, if sufficiently satisfied on the evidence, make our own independent assessment of efficiencies, and clear the merger on that basis[14]".

Thus in Canada, the economic analysis of efficiencies is a particularly important component of merger review and in the right case, may lead to clearance of a proposed merger without contested proceedings before the Competition Tribunal. Indeed, successful proof of an efficiency defence will necessitate a combination of solid financial data supporting the various categories of production, distribution, overhead and other efficiencies, which is then supported by expert economic evidence. In addition, dynamic efficiencies are increasingly being considered and applied in proper cases in Canadian merger analysis.[15] In the right Canadian case, sufficient financial and economic data may avoid a "battle of experts" before the Tribunal. It is important, however, to emphasize that the economic analysis done in Canadian cases (by both the Bureau and the private sector) must be based upon a concrete factual foundation; economic modelling and conclusions which are not properly based on solid factual foundations will inevitably be shown to be less credible in this process. Therefore, even in complex Canadian efficiency cases, economic experts and the evidence presented by them must be properly grounded on the relevant facts.

3. Conclusion

Economic analysis is an indispensable tool in merger evaluation, but effective economic analysis does not imply that complex merger simulation exercises, consumer surveys, demand elasticity measurements or other economic gymnastics need be adopted in order to gain assurance of an accurate enforcement decision. Indeed, over-reliance on such measures, particularly for agencies without substantial capacity and experience, can create a risk that inaccurate enforcement decisions will be made. While BIAC applauds the introduction of economic thought into merger analysis by numerous agencies in the past decade, it also suggests that agencies firmly establish their footing in factual evaluation in an economic construct before undertaking more complex economic analyses.

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14 Speaking notes for Sheridan Scott, Commissioner of Competition Bureau, Canada, delivered to the Canadian Bar Association Annual Fall Conference on Competition Law, September 28, 2006.

15 For a more detailed discussion of the Canadian efficiency defence and the factors considered thereunder, see the note by BIAC presented on June 15, 2007 to the Roundtable on Dynamic Efficiencies in Merger Analysis. For a comparative analysis of treatment of efficiencies in Canada and other jurisdictions including the U.S., see Ilene Knable Gotts and Calvin S. Goldman "The Role of Efficiencies in M&A Global Antitrust Review: Still in Flux?" published in 2003 by the Fordham Corporate Law Institute. See also "The Renewal of the Efficiency Defence: The Importance of Building Tall Trees" by Calvin S. Goldman and Micah Wood, presented at the 2006 Canadian Bar Association Annual Fall Conference on Competition Law, September 28, 2006.

SUMMARY OF DISCUSSION

The Chair opened the afternoon roundtable discussion of the 100th meeting of the Working Party No. 3. The topic for discussion is how competition authorities deal with complex merger investigations. The topic is an extremely interesting and relevant one, as it affects the daily work of many antitrust agencies which more and more often need to seek external expertise to address the complex issues arising in mergers or have to rely increasingly on statistical, econometric or other advances quantitative techniques to support their analysis.

The Chair introduced and welcomed Richard Gilbert, professor of economics at the University of California Berkeley and former Deputy Assistant Attorney General for Economics at the Antitrust Division of the Department of Justice of the United States. Prof. Gilbert was invited to make a short presentation to open the roundtable and to participate to discussion that would follow. His presentation focussed on his experiences on analyzing complex mergers both from inside the competition agency and as a consultant for private parties in large mergers, as well as from an academic perspective.

I. Introductory remarks of Prof. Gilbert

Prof. Gilbert clarified that his presentation would focus particularly on horizontal mergers and would start by reviewing some of the new analytical tools that have been developed - some of them fairly recently - and applied with more or less success in horizontal merger cases.

Unilateral competitive effects analysis refers to a statistical methodology based on game theory analysis, usually applied in differentiated product markets. Economists also refer to it as 'Nash-Bertrand analysis'. It is a static profit maximisation analysis, which assumes that everybody maximises profits by choosing prices ignoring any responses from other firms in the industry with respect to their prices. Unilateral competitive effects analysis employs an econometric model of demand, whose reliability requires good price data. Cost data in this approach is relatively less important, because this approach is really based on the premise that marginal costs which are relevant to profit maximising choices are almost impossible to measure.

Equilibrium bidding models are also game theory-based models but are usually applied in markets where products are homogenous. These models have been used for example in electricity mergers. In this case, it is necessary to have good cost data in order to estimate the bids, while the demand data are less important. Again this is a static model and an example where this has been used to some extent is the attempted merger of Exelon and Public Service Enterprise Group, two electricity suppliers in the eastern mid-Atlantic part of the US.

Another analytical approach is referred to as *residual demand analysis*. This approach was developed by John Baker and Timothy Bresnahan and it was also applied in the Exelon/Public Service Enterprise Group merger in the US. This methodology also requires good cost data or bid data; the data can be either the marginal cost of the electricity plants or the data on the actual bids that have been submitted in the wholesale electricity market. This has been applied to an electricity power pool which organises a spot market for wholesale electricity on an hourly basis. It is possible then to use the bids to estimate what the effects of the merger would be in the wholesale market. Again, as for the equilibrium bidding model, the demand data is less important, as this model is usually applied under the assumption that demand is fixed.

Again these are static models and do not account for dynamic interactions; in particular this residual demand analysis is a partial analysis and it is not a full equilibrium analysis.

Another approach that has been used for a longer period of time is the *cross-section analysis*. This methodology really just looks across different markets and different time periods to see how a change in market structure might affect prices and profits. Again this methodology requires good price data. There are potential issues with what is called 'selection bias', because one should really make sure when using this approach that the only thing that is different across markets or across time periods is the market structure and that there are no other differences. An example in which this methodology was used is the merger of two major US office supply superstores, Office Depot and Staples, which was challenged by the FTC using this type of analysis.

Looking at the various methods of analysis of horizontal mergers one can identify a number of challenges for competition agencies. The first challenge is that these methodologies tend to be very data intensive. A second challenge is time, since mergers are often analyzed under an accelerated clock. A third challenge is expertise: these are not simple approaches and it is easy to make mistakes. Another challenge is related to the cost of assembling the right data set and the expertise that is necessary to do this type of analysis. Another problem with these tools is that models have different implicit assumptions in them. They are static and they do not account for dynamic interactions or for competitive responses such as brand repositioning which can occur after a merger. They do not explicitly model entry and efficiencies. For all these reasons, Prof. Gilbert found that analyses of this nature tend to be sometimes reactive rather than proactive, meaning that the competition agency is focused more on criticising what the parties have presented rather than putting together an independent analysis. That is also because the data is so difficult to obtain, and often agencies have to rely on the parties to produce the data.

Moving to some concrete examples, Prof. Gilbert discussed the proposed merger of Direct TV and Echostar, the two nationwide providers of direct broadcast television services (DBS) in the US. This is a market where there was competition from cable TV in the areas where cable was available and little competition from the over-the-air broadcast television. It was determined that broadcast TV was not part of the relevant market, which meant that this was a merger to duopoly where cable was available and a merger to monopoly in regions that were not served by cable. There was some dispute about whether analogue cable was sufficient to compete against DBS or whether it had to be digital cable but that was not a central issue.

The merging parties made a number of claims in this merger. They claimed that the DBS providers Echostar and Direct TV competed with cable and not with each other and that the nature of competition in this industry was to attract subscribers away from cable and not to attract subscribers away from the other DBS suppliers. In particular, they cited low churn statistics (i.e. the movements of subscribers from one DBS provider to another) between Direct TV and Echostar. The merging parties also argued that competition with cable protected consumers even if they did not have access to the cable service, because of the uniform pricing charged nationwide by DBS regardless of whether one of the DBS services was constrained by the cable or not. The other argument that the parties made was that the merger would generate large efficiencies because most of the broadcasts from the two DBS suppliers were redundant, as they were transmitting the same content. After the merger, the merging parties would be able to save capacity to provide other services and in particular more local programming into local areas and more high definition programming: movies, sports, ethnic programming, etc.

The analysis of this merger raised many complications. First, there was little variation in DBS prices so it was very hard to compute price elasticity; instead the analysis confirmed the elasticity of demand by looking at how DBS demand responded to differences in local cable prices. But that was rather complicated and it was very hard to achieve real confidence on the estimates of the market elasticity either

for the overall demand for DBS or for the demand for each DBS supplier, which you needed in order to consider the effects of the merger. Hence, in this particular case, econometrics was not used as conclusive evidence but just to inform the analysis and to critique the analysis that the parties had provided. Other evidence turned out to be more important, such market studies, consumer attitudes, strategic documents from the parties, because it spoke very directly to what was happening in the market. In this case, econometrics was used to gain confidence that in fact the market studies were correct rather than as the basis for the whole analysis of the merger.

The second example discussed by Prof. Gilbert was the attempted merger of Exelon and Public Service Enterprise Group (PSEG). This was the proposed merger of two large electricity suppliers: Exelon served retail customers in Illinois and Pennsylvania; PSEG served retail customers in New Jersey. Both companies competed for the sale of wholesale electricity throughout the mid-Atlantic, Illinois, North Carolina, W. Virginia and Ohio. Both companies sold wholesale electricity in a power pool that operated in the mid-Atlantic. The focus of the merger analysis was on how the merger might have effected this wholesale competition. In that region in particular the merged company would have controlled almost half of the electricity generation capacity. Competition in the retail electricity market was not an issue as this market was primarily state regulated.

What was interesting about this merger right from the beginning was that if one just looked at the entire wholesale region and calculated the Herfindahl-Hirschman Index it would have been about 2.100 with a delta of 1.800 points, which would not normally raise concerns in most merger situations. This was not what one would define as a particularly concentrated market. However, the quantitative analysis showed quite clearly that there were potential concerns from the merger that had to be addressed. The reviewing agency was fortunate that a large amount of bid data was available from the power pool. The analysis was nevertheless complex because of the very large number of markets involved (over 17.000 markets per year) and the various geographic markets for electricity because of transmission constrains which create local markets.

The *competitive residual demand analysis* starts with a fixed market demand, assumes that all the other firms in the market are acting as competitors and then compute in effect what the residual demand is for the merging parties and calculate their profit maximising output in the corresponding price. If the analysis is done pre- and post-merger it allows the agency to figure out what is the difference in output pre- and post-merger and what the effect on the price would be. In this case, the analysis showed that at a level of demand of 17.500 MWh the price impact of the transaction would be potentially very large. This type of analysis allowed the US Department of Justice to simulate the effects of the merger under many different conditions and it ultimately led it to approve the merger with specific conditions that included selected targeted divestitures and service obligations.

To conclude his introductory remarks, Prof. Gilbert emphasised that these new analytical tools potentially increase the precision of the merger analysis. The outcome of the analysis, however, depends entirely on the model and on the data used, so it is never entirely reliable. The analysis takes time and talent, and often both are in short supply given the restrictions that agencies have to deal with in the merger process. In general, the model and the econometric analysis have to pass a "common sense" test. A fundamental input is market definition: by properly defining the market one gets a better idea of the group of consumers who are vulnerable to the exercise of market power. Simulation, surveys and market studies are very useful complements to support a common sense conclusion. Prof. Gilbert emphasises that the use of these new tools should be promoted as a complement to traditional tools and techniques.

The Chair thanked Prof. Gilbert for his remarks and for the illustration of the two interesting merger cases, which will provide a good baseline for the discussion. In order to structure the discussion, the Chair suggested that delegates should focus their comments on four different aspects of complex merger

analysis: (i) how to obtain, collect and process large data sets; (ii) how to handle complex quantitative analysis; (iii) experiences with customer and competitor surveys; and (iv) examples of complex mergers including cases which required the use of external experts.

II. How to obtain, collect and process large data sets

The Chair agreed with Prof. Gilbert that it is very hard to do complex analysis unless one has a good data set to support it. In their submissions, many countries agreed that obtaining and processing the information necessary to assess a merger is one of the key challenges that competition agencies face in merger control. Tight deadlines, limited resources, and the need to rely on an increasingly large amount of information force agencies to carefully plan their discovery strategy. Questions such as what information is needed and at what stage of the procedure it should be requested are very important in managing a merger case. Subsequently, ensuring the completeness, the correctness and the reliability of the information collected becomes the foundation of a sound substantive analysis.

The submissions from Portugal, Czech Republic and Brazil discuss experiences on how to collect efficiently the large amounts of data which are needed for quantitative analysis. The Chair invited these delegations to address this issue in more detail.

The delegation from Portugal explained that two recent large mergers, one in the telecom industry and one in the banking industry, gave the Portuguese competition authority the opportunity to make some experience with the collection of large data sets. In both cases, the large impact on the public opinion persuaded the competition authority to perform quantitative analysis to complement and confirm the more traditional qualitative analysis. In the telecom merger, a survey carried out by a consulting firm on the use of telephone services, internet and other services was readily available. The authority used this data set to estimate the elasticity of demand. The discussion on the results of the analysis focussed on some of the problems already emphasised by Prof. Gilbert, i.e. the problem of the flexibility of the demand system.

In the banking merger, the competition authority had to collect the data sets specifically for the merger. Banks were the main source for this data. The authority sent questionnaires to ten banks concentrating mainly on mortgages for households and SMEs and on contracts for short and medium term loans. One lesson that the authority learned from this exercise was that it takes a lot of work and time to get the questionnaire right. For instance, the data from some banks was not up to the standards required by the competition authority and the agency had to clarify what was the expected quality of the data in order to improve the data set. Unfortunately, in complex mergers there is no alternative. The reviewing agency must collect the data and do some quantitative work to inform its decision.

The representative of the Czech Republic intervened to report its experience in collecting data from other public institutions. In the Bayer / Aventis merger, the competition authority had to review a merger in the area of production of plant protection and growth enhancing chemicals. This merger concerned more than 600 substances and the agency received a limited set of data from the parties which would not allow it to review all of these product markets. In order to do so, the agency decide to ask the regulator that supervises this sector for a much broader data set on the consumption of individual substances. Thanks to this data the agency could perform a good analysis of the market. This successful outcome was possible thanks to a general provision in the Czech Competition law according to which the competition authority can ask to any public administrative to provide information in their possession which is relevant for the case. Despite this provision, however, in some cases the competition authority has experienced resistance from other public bodies to share their information. This is the case for example of the Czech statistical office which has a very broad database but refuses to share it.

The delegate from Brazil emphasised that Brazil is in a specific situation because the merger system allows the merging parties to consummate the merger while the agency is still reviewing the case. This has raised many difficulties for the reviewing agencies because the parties have no incentive to provide all the information which is necessary for a meaningful analysis. The Brazilian experience shows that normally for mergers in consumer goods, it is much easier to collect data as there are many private consultants, such as AC Nielsen, who collect this information. It is more difficult to obtain data if the merger affects intermediate products, in which case the agencies is obliged to rely much more on the information provided by the parties. But this is not always an easy task. When it comes to price information, for example, there are different prices that one could collect: the prices that the government collects through the foreign trade secretariat, the parties listed prices, the actual transaction prices, etc. All this information has to be provided by the parties.

In most of the complex mergers dealt with by the Brazilian agencies, the best data were provided to the reviewing agency if an opponent to the merger had filed its own quantitative analysis forcing the parties to do similar analysis to rebut the complainant's simulations and econometric studies. However, if data is not readily available from the parties this complicates the process since the agencies have to buy the data on the market which is subject to complex and lengthy administrative procedures. Similar issues arise if the agencies have to hire an expert to work on the data. For a developing country and/or a young jurisdiction such as Brazil these are difficult challenges and the agencies had to learn rapidly how to request information from the parties and to inquire on the methodology the parties adopt when collecting the data, the type of software they use so that the agency's staff can be properly trained to test the results.

III. How to use data sets for complex quantitative analysis in merger review

The Chair thanked the Portuguese, Czech and Brazilian delegations for their interventions and moved to the next topic for discussion, i.e. how to use the data once the agencies have obtained it. Merger analysis has become increasingly complex. Antirust agencies often make use of quantitative analyses and models to address issues such as defining the relevant market, measuring market power, analysing competitive effects, and quantifying likely efficiency gains. These sophisticated quantitative techniques require the handling of large amounts of data and their use absorbs considerable internal and external resources. It is important therefore to understand to what extent agencies can rely on the outcome of these techniques and for what purposes these techniques can be used.

The Chair noted that a number of written submissions discuss the various agencies' experience with using sophisticated modelling and other econometric techniques. In that regard, the Chair asked the delegation from New Zealand to present their approach to modelling in merger review.

The representative of New Zealand explained that over the years the Competition Commission has acquired a fair experience in using modelling and other quantitative techniques in merger analysis. The extended use of quantitative analyses in the merger area grew out of a requirement that was put on the Commission by the Court of Appeal: in the authorisation context, the Commission can allow transactions that substantially lessen competition if it can be demonstrated that there are benefits from doing so. Some of the merger cases that the Commission has looked at involved large data sets, including one of the most recent cases in the supermarket area, which is currently under appeal, where the Commission used supermarket scanner data.

Recently, the Commission used models to help particularly with market definition issues. For example, econometric and other techniques were used to decide on the appropriate market definition between butter and various yellow fats. The Commission also used merger simulations when looking at post-merger price changes using the BERT model, a Bertrand-based model, where the demand function rather than being estimated econometrically is calibrated using a technique called Proportionality

Calibrated AIDS (PCAIDS). This model was used in a rental car case a few years ago. It was an important case in terms of showing the predicted price changes. More recently, the Commission used the model in the supermarket case mentioned before, in response to information filed by the applicants. Over the years, the Commission also used financial modelling of business entry. In a recent case involving waste collection, the Commission looked at models of entry into two relevant product markets (wheelie bin collection and front-end load collection).

Finally, the Commission has also made use of econometric modelling. This was the case, for instance, in 2006 when the Commission looked at a proposal from the New Zealand Rugby Union to introduce a salary cap. Although this was not a merger case, the experience demonstrates nicely how the Commission uses econometric modelling. In that particular case, the Commission was trying to test the uncertainty of outcome hypothesis. Interestingly, when the Commission stopped testing the hypothesis that had been put to it by the applicants (under which hypothesis the Commission would have prohibited the salary cap), it went on to do its own analysis looking at other possible theories of where benefits might arise from the salary cap and it did find the existence of a different hypothesis under which the salary cap could be allowed.

Based on its experiences with modelling and with quantitative techniques, the Commission concluded that they are a valuable aid for assessing various aspects of a merger particularly defining markets, assessing entry prospects and simulating post-merger price effects. However, models can at best provide a guide to reality but they rarely produce conclusive results and often alternative formulations are possible. For this reason, the Commission weighs the quantitative findings with the qualitative evidence available. In general, the Commission strongly believes that setting out underlying assumptions and structures makes models more transparent in terms of informing the analysis. This allows focusing on the key issues and facilitates the testing of key parameters.

The Commission is very aware that use of models exposes to a degree of risks or errors with the consequent potential loss of reputation on court challenges, especially given the short time frame within which merger decisions are taken. Hence, it is very important that models are subject to quality control and accountability reporting. For those reasons, the Commission established a quite formal quality control for major modelling work. The policy does recognise that an uncontrolled approach to modelling may result in poorly structured and poorly documented models, that there are risks around data and assumptions that are not being validated and there can be inadequate control, little or no independent review and consequently risks of error. The policy sets down a system of check and balance to ensure that a controlled approach to modelling is used.

The Chair thanked New Zealand for the intervention and turned to the Irish delegation for comments on the Irish experience and conclusions draw from the analysis of 28 complex mergers that the Irish Competition Authority reviewed between 2003 and 2007.

The representative of Ireland reported that to date the Irish Competition Authority analyzed over 360 mergers but only 28 of those were considered to be complex. In all those 28 mergers, only five required extensive use of quantitative techniques. The analysis of these five mergers showed the following conclusions.

- First, in terms of what questions required quantitative analysis, in two cases the competition authority used it for purposes of market definition and in five cases to analyze the competitive effects of the merger. The authority never used these techniques to estimate any efficiency that might have resulted from the merger and that was because the parties in these cases did not put forward any efficiency defence.

- Second, quantitative techniques were used in cases where large data sets on price and quantity were available. These were usually data at the retail level provided by companies such as AC Nielsen; but in some cases the parties also had extensive scanner data that could be used for quantitative analysis. In all cases reviewed, the data set was provided by the parties and the authority did not have to purchase it in order to conduct the analysis.

- Third, in most cases it is the authority that took the initiative to conduct quantitative analysis. In a recent case on soft drinks however the parties did some correlation and co-integration analysis but it was the authority that took the initiative to further develop the analysis in order to calculate the elasticities and define the relevant market.

- Fourth, quantitative analysis is not used on its own but rather in support of other qualitative evidence, such as surveys and internal documents in order to come to a conclusion about whether there is a serious lessening of competition.

- Finally, because the Irish Competition Authority is a relatively small organisation with limited resource to devote to this type of analysis, the authority has tended to purchase this type of expertise on the market (e.g. universities) rather than to develop it in-house.

The Chair then turned to the French submission which describes some of the analysis that the French Conseil de la Concurrence undertook in the Marine Harvest NV / Pan Fish ASA merger case, where statistical and econometric analysis was used to analyze both the relevant market and competitive effects of the transaction.

The French delegation explained that in the merger case mentioned by the Chair one of the key elements of the assessment related to the definition of the relevant market. In particular, the question addressed by the Conseil was whether there were separate markets for fresh salmon produced in Scotland, Norway and Ireland respectively. The parties to the merger had submitted various tests, i.e. a correlation test, a stationarity test and a co-integration test. Despite the difficulties that these tests posed and their complexity, the agency was extremely pleased with their results which allowed it to conclude that the geographic scope of the market included the production areas of Scotland, Norway and Ireland.

In addition to using these techniques to define the relevant market, the Conseil also used quantitative techniques to assess the unilateral effects of the transaction. The parties suggested an econometric model that the Conseil considered to be appropriate for this analysis. However, because the model used by the Conseil to assess the likely unilateral effects on a global market led to results which were not entirely aligned to those proposed by the parties, the Conseil suggested to the parties to segment the market and to analyse the unilateral effects on the market for fresh salmon from Scotland only. In this segment of the market, the unilateral effects were significant and the Conseil discussed with the parties the possibility to attach commitments to the decision. In this case, the Conseil found the quantitative analysis was extremely useful and not resources intensive, as most of the work was done by the parties, allowing the agency to focus its efforts on the remedies discussion and tailor it to the potential concerns that the analysis had highlighted.

The Chair then turned to the Dutch delegation and asked to present the analysis performed in the energy merger involving Nuon and Reliant.

The delegation from the Netherlands reported its experience in the Nuon/Reliant merger, which was not entirely positive as the administrative decision was ultimately annulled by the reviewing court. However, the case was very interesting because there was a lot of data available to use for quantitative analysis. The Competition Authority (NMa) had already a significant amount of data available and in

addition it could rely on the data collected by the sector regulator. This data allowed the NMa to run simulation models made by economic experts. In particular, the NMa did one supply function equilibrium model - also called equilibrium bidding model - and checked the results of the supply function equilibrium model by separate Cournot model and concluded that the merger would have the effect to raise prices by around 10%. However, in the end the court annulled the administrative decision because there was some debate on the way price increases were modelled. Despite the criticisms about simulation models, however, the NMa found that they have one very important advantage: in a sector like electricity, quantification has the merits to support the discussion on what remedies are required to address the competition concerns. In these situations, the use of a model can help the discussion with the parties and offers a better starting point than any structural indicator.

The Chair thanked the Dutch delegation and asked the BIAC Committee for its views on the importance of this type of economic analysis and in particular on the care and caution that competition authorities should have when engaging in this type of complex analysis.

The representative of BIAC emphasized that sound factual analysis is a very important corner stone of sound economic analysis. Any economic analysis founded on erroneous or misplaced factual assumptions can only be counterproductive and can in fact lead to misplaced results. BIAC noted that often the analysis made by competition agencies incorporate some factual assumptions that are erroneous. It is quite important that the factual assumptions underpinning the economic analysis match up with the conditions that are facing the merging parties themselves, which are not necessarily those portrayed to the agency by third parties, often competitors to the merging parties. BIAC also noted that, as pointed out numerous times in the discussion, sound economic analysis requires sound data. Although it may come as a surprise, the merging parties themselves often find that despite their best efforts they are not able to put together a sound data set to support the required economic analysis. Agencies should take that into consideration. Finally, BIAC emphasised the particular risks related to surveys, which should be held to just as high a standard of rigor as economic or econometric analysis. Surveys should not to be biased and need to be representative. There is a great depth of expertise on how to conduct surveys and agencies should consider applying these high standards when they are conducting their own questionnaires and surveys.

IV. Experiences with customers / competitors surveys

BIAC's intervention made specific reference to the rigor that one is encouraged to apply to customer and competitor surveys. The Chair noted that from the country contributions it appears that surveys are used fairly often by competition authorities. A number of submissions provide good examples of how to design and/or to commission market surveys most effectively, emphasising pros and cons of competitor and customer surveys. Designing surveys that are bias-free and ensuring that the surveys are able to probe the interests at stake are very important issues and there is a lot that agencies can learn from each others' experiences.

In order to share some of the experiences with the use of surveys, in both their strengths and weaknesses, the Chair asked the European Commission to discuss the importance of the customer survey used in the recent Ryan Air / Air Lingus merger.

The representative of the European Commission emphasised that the decision to organise a customer survey was made because during the investigation the Commission realised that it lacked information on customers' preferences and that this information could not be obtained through the usual market test, which relies on questionnaires. In the Ryan Air / Air Lingus merger the Commission had to assess if the merging parties were close substitutes and, if they were, to what extent they would be constrained by third parties in the market. To answer these questions, the Commission felt that the views of customers were extremely important. The survey showed the following:

- The correct design of the survey is very important: The Commission thought important to understand at the outset how to ensure that the questions asked in the survey addressed the relevant issues and that the survey was representative. The Commission contracted an external consultant to provide technical assistance on the design of the survey and to carry out the field work. The scope of the questionnaire was kept limited and focussed on the main issues in the investigation because, in the few time available, the shorter the questionnaire the higher the return rate.

- Equally important was the selection of the sample. The Commission had to make sure that the study would be representative and this largely depended on the contractor. The Commission also consulted the parties in advance on the draft survey, so to get from them feedback with regards not only to the questions but also to the sample.

- The time factor plays an important role. Because the survey could only be launched once the direction in which the case was going was clear, the Commission could only started working on the customer survey in the phase II of the merger investigation. There were some practical issues which had to be solved at the outset, such as obtaining approval for the budget, acquiring the appropriate software, training the staff on how to use it, etc. which delayed the process to a certain extent. As to budget, the Commission found that dealing with the customer survey at the same time as you are negotiating internally the budget approval can be rather stressful.

According to the Commission, the main lesson learnt in this particular case was that customer surveys can have a significant impact on the direction of the case. Overall, it was a very positive experience. The case showed, however, that it is very important to have tailor-made surveys and that it is very important to identify the need for a survey as early as possible in the investigation, which would perhaps imply that the agency should try to develop a theory of harm relatively early in the process. The survey in the Ryan Air / Air Lingus case also showed that (i) it is necessary to have the right software available and (ii) somebody who has the experience with such software and (iii) agencies should probably clear in advance the budget for such an exercise.

The Chair turned to the delegation from the United Kingdom which indicated in its submission that surveys are used quite extensively in particular by the UK Competition Commission. The Chair asked the UK delegation to share with the other delegations some of the benefits of such experience.

The representative from the United Kingdom explained that the Competition Commission handles approximately ten phase II cases every year and in just under half of those customer and consumer surveys are used. The purpose of these surveys is to obtain reliable and objective evidence about consumer purchasing decisions. The UK experience confirms what has already been said by the European Commission, and particularly that above all it is necessary to have confidence in the reliability of the sample and in the design of the questionnaire. Unfortunately, in merger cases there is a severe trade-off between quality and timeliness. In the UK, mergers are reviewed in what is effectively a 15-16 weeks substantive procedure. It takes a few weeks to get the survey questionnaire set up, the experts appointed and the design tested with the parties. In about week 3 or 4 the questionnaire may be in a position to be sent out and the answers need to be back and assessed by about week 9 or 10 to be of some use for the enquiry. This shows that the timetable on which the Competition Commission operates is quite testing.

Similarly to other delegations, the UK emphasised the importance of a careful survey design, the importance of building up existing expertise, of having the required expertise in-house, with staff well trained and familiar with the dangers of survey design. To improve effectiveness of surveys, the Competition Commission has published a paper on how to handle customer and competitor surveys, which emphasises that enforcement agencies should concentrate surveys on the issues being identified as being

really important for the investigation. In addition, agencies should have great care in the design of the questionnaire to obtain meaningful answers and to ensure that the agency gets facts from experience rather than opinions or unreliable answers to distant hypotheticals. Above all, agencies should realise that surveys are just one piece of evidence amongst many and for this reason the Competition Commission would never rely on a survey result to ground a decision either for or against a merger.

The Chair thanked the UK delegation and turned to the delegation from Japan inviting them to talk about the experiences of the Japanese Fair Trade Commission (JFTC) with competitor and customer surveys.

The representative of Japan confirmed that interviews and questionnaire surveys play an important role in Japanese merger control. Often, in the review of complex merger cases, the JFTC conducts interviews and questionnaire surveys during the phase II review of the case. Questionnaire surveys are used more often to test the view of users or suppliers rather than competitors. Attention is paid to ensure that the information received is objective. Generally, the sample of users or suppliers is selected from a list provided to the JFTC by the merging parties. In selecting users or suppliers, the JFTC aims at selecting those who are most representative of the market. The agency also pays attention to information management: when conducting a questionnaire survey it is necessary to statistically process the result of the survey and to ensure that the information obtained (e.g. the names of companies and the respondent details) is not made public. This is essential if one wants to obtain the cooperation of the companies surveyed. The use of a questionnaire survey proved very important in the review of the merger between Mitsubishi Tokyo Financial Group and the UFJ Holdings of May 2005. In that case, the JFTC conducted a questionnaire survey of businesses that had received a loan from the merging parties with the purpose of assessing the effects of the merger on the market.

V. Complex mergers which require the use of external expertise

The Chair turned to the next topic for discussion, i.e. the issue of technical or other complex issues that require expertise that may not be present in a competition agency. Many transactions are complex because the reviewing agency is confronted with complex contractual arrangements (such as IP licensing contracts), with sophisticated technology issues, or complex regulatory regimes which affect the analysis of the competitive effects of the transaction or the assessment of the remedies required to authorize the transaction. In some cases, the complexity also lies in the lack of in-house knowledge of the complex issues raised by a transaction which forces agencies to seek for the necessary expertise externally. A number of submissions have addressed these issues and discussed how agencies deal with such challenges.

To open the discussion, the Chair asked the delegation from Israel to explain how the Israeli Antitrust Authority (IAA) addressed some challenging technical issues regarding the development of technology for delivering video services in a merger related to multi-channel video distribution.

The representative from Israel explained that the transaction involved the merger between Bezek, the Israel Telecommunication Corporation Ltd., and D.B.S Satellite Services, a company in which Bezek owned a minority share. Bezeq was the incumbent telecom company in Israel operating in all fields of fixed and mobile telephony and was a declared monopoly in fixed telephony and broadband access facility. D.B.S was a multi-channel satellite broadcasting company offering multi-channel pay-TV services via direct broadcast satellite technology. Prior to the transaction Bezek held shares in D.B.S. and through the transaction it wanted to acquire full control of the company. The merger had both horizontal and vertical aspects and its assessment was complicated by the dynamic nature of the telecom and media industry, which is subject to constant changes in technology. The greatest challenge for the IAA was to identify which technology would lead the market in terms of delivering content and services to consumers. The IAA had also to predict the future moves of the telecom carrier Bezek when it came to upgrading its

infrastructure to accommodate IPTV technology and what would be Bezek's incentives to offer its services or infrastructure access to potential competitors. After looking closely at the possible technological developments, the IAA concluded that Bezek would not have any incentive as after the merger it would hold full control of the DBS to avail its infrastructure for future broadcasting companies. Therefore the IAA objected to the merger.

On the topic of mergers in the TV or video distribution markets and technical expertise, the **Chair** asked the delegation from Slovenia to address some of the issues with which they have been confronted in this area.

Before answering the question, the delegation from Slovenia explained that, similarly to what had been reported by other delegations, the competition authority in Slovenia is constantly confronted with sector regulators in merger cases. This is because regulators collect and process large quantities of data. These relationships however have not always been positive, mostly because under the current law sector regulators cannot be forced to share their information with the competition authority. For this reason, there is a new legislative project which aims at introducing the so-called "precision fine" of 50.000 Euro if the addressees of a questionnaire from the competition authority do not comply with it. To date, in Slovenia the response rate to questionnaires is less than 30%.

Concerning the Chair's question on the merger in TV markets, Slovenia recently assessed a merger between two cable operators. The merger was considered to be very important because the cable operators were – and still are - the largest operators in Slovenia. The competition authority, however, decided not to challenge the merger because the investigation showed that cable operators operate in closed network so they did not represent a constraint to each other. In addition, the merger would create a competing internet delivery infrastructure in competition to the fixed line network. One of the steps to reach this conclusion was to estimate the volume of the market. The competition authority asked the agency for electronic communications - the sector regulator - to provide it with some estimates of the development of the market and technology. The sector regulator provided the competition authority with some estimates and with some market analysis according to which in the market for TV distribution there are at least two strong competitors financially and technically even stronger than the existing cable operators intending to merge. The same information indicated that in the fixed telephony market there was at least one other competitor and many so-called virtual operators. In view of these elements, the merger was approved without remedies.

The Chair noted that both the Russian and the Korean submissions made reference to ways of acquiring expert knowledge through structural solutions. Both submissions make reference to the creation of "expert councils" whose role is to provide the competition agency with advice and expertise on technical issues in particular industries and markets.

The delegation from Russia took the floor and explained that expert councils can be an effective tool not only in complex merger cases but also in antitrust enforcement cases. The Federal Antimonopoly Service (FAS) relies on these expert councils also to obtain assistance in competition advocacy efforts in a particular industry. In the last two or three years, Russia has created a number of expert councils in the fields of telecoms, gas, railways, construction industry, construction, electricity, agriculture and other sectors. Expert councils are composed of industry experts which are asked to organize regular discussions meetings on specific issues relevant to their industry. The regular discussions at the expert council meetings together with market surveys and consumer surveys were particularly valuable source of information in cases where the FAS decided to impose behavioural or structural remedies. Recently, mergers in the aluminium, drilling equipments, fertilizers, and cement markets were subject to the discussion of the relevant expert council.

The delegation from Korea explained that in order to ensure objective market research on antitrust cases the KFTC is supported by expert councils on particular industry sectors, such as financial and distribution sectors. The expert councils meet regularly once or twice per year to discuss general competition policy issues related to each particular industry in what are called competition policy consultation meetings (CPCM). In addition, expert councils also meet in *ad hoc* meetings to support the KFTC review of mergers in these industries. For example, to obtain the required expertise for the review of the merger between Kookmi Bank and Korea Foreign Exchange Bank, between May and November 2006 the KFTC held a number of CPCM on the financial sector. The CPCM consisted of financial experts with a diversified background and they provided the KFTC with useful information and knowledge of the finance industry. The KFTC is planning now to expand the number of industry-based expert councils to include sectors such as telecom and broadcasting.

The Chair thanked the Russian and Korean delegations and asked the US delegation to comment on the discussion so far, focussing in particular on the new analytical tools available to antirust agencies, the many benefits that can be associated with using these tools but also the numerous notes of caution about how and when they are used.

The representative from the United States referred to the initial presentation of Prof. Gilbert which very well described the way the US Department of Justice (DoJ) uses these new analytical tools in the context of complex mergers. The DoJ makes extensive use of econometric expert analysis in its enforcement action, but over the years has also called on outside industry experts to advice on specific aspects of an industry. All this is done to assist the agency in better understanding the market and the effects that the merger may have. These quantitative analyses have proved to be a very useful tool to aid the agency understanding the transaction and its effects but have also proved very useful when the DoJ had to explain courts why a merger would have an anticompetitive effect. However, in the DoJ experience this type of analysis is never a substitute for structural and the qualitative analyses. As already emphasised by other delegations, quantitative analysis have limitations and their effectiveness heavily relies on the assumptions made and on the quality and the robustness of the data available to the agency. As for surveys, the DoJ does not use them as much as other jurisdictions. This is due in part to the costs and time required to run a survey that would actually be materially informative for the analysis. At times the DoJ supplements its in-house expertise with outside experts. These are cases where the agency feels that outside experts are better positioned to testify in court.

A lot of the decisions on what tool to use (econometrics, survey, expert witness, etc.) are very much influenced by the need of US agencies to present evidence to a court that will be accepted. For example, in two recent unsuccessful merger challenges of the US Federal Trade Commission (FTC), the biggest challenge for the agency was not so much the robustness of the sophisticated economic analysis (which included a fair amount of econometrics) as the ability to convince the court and to simplify the economic argument down to a level that the court could understand and accept it. In both cases it was clear from the judgement that the agency was not successful in convincing the court that the very sophisticated economic analysis was the proper way to look at the transaction. Instead, in both cases the court accepted what the FTC believed was a much more simplistic economic analysis and that led to the conclusion that the transaction was not anticompetitive at the preliminary injunction stage.

VI. Concluding remarks

To conclude the roundtable, the Chair asked Prof. Gilbert to comment or react to the many interesting points made by the delegations during the discussion.

Prof. Gilbert noted that the delegations were by and large in apparent agreement with each other on many issues which is interesting given their very different backgrounds and experiences. He felt that the

discussion showed an extraordinary agreement on both the value and limitations of the types of analytical and statistical approaches to unilateral effects which were discussed. It was very clear from the discussion that this is not a process that can be automated, but that any good model has to be based on a firm understanding of the characteristics of the industry and on a firm appreciation for the limits of the data. However, the discussion showed that the use of models has an intrinsic value: models tend to focus the analysis and make it easier to explore different assumptions, to consider and simulate different types of consequences based on such different assumptions.

Prof. Gilbert also agreed with a large number of delegates that communication and enforcement are really open areas when it comes to these complex models. Communicating the results of a very complicated equilibrium analysis to anyone is a challenging task. In addition, going to a court and try to get it to understand what a unilateral effect analysis does and how it relates to traditional ways of thinking about mergers is still very much an open question. According to Prof. Gilbert, another interesting question raised by the discussion is how to model efficiencies. According to him, very little progress has been made in terms of the actual modelling of where the efficiencies come from. What the different analytical tools can do is to explore the consequences of different efficiencies and how those alternative efficiencies affect likely post-merger prices. But the actual understanding of why efficiencies come about, how they are passed on to consumers, what are the sources of the efficiencies, whether they are short-term or long-term are issues that still requires further thinking.

The Chair agreed with Prof. Gilbert that there is an extraordinary amount of agreement in this area. The Chair also noted that it is both interesting and exciting to see how widespread the use of these relatively new techniques is. Delegations acknowledged that these analytical tools offer great opportunities, but represent a great challenge as well. Before bringing the roundtable to a close, the Chair thanked Prof. Gilbert for sharing his expertise with the Working Party and thanked all the delegations for their written submissions as well as for their interventions to what he thought was both a very interesting and informative discussion.

COMPTE RENDU DE LA DISCUSSION

Le Président ouvre la table ronde de l'après-midi organisée dans le cadre de la 100e réunion du Groupe de travail n°3 et ayant pour thème les modalités d'examen des fusions complexes par les autorités de la concurrence. Il s'agit d'une question particulièrement intéressante et pertinente, dans la mesure où elle a des répercussions sur les activités quotidiennes de nombreuses autorités de la concurrence qui sont de plus en plus contraintes d'avoir recours à des compétences extérieures pour traiter les questions complexes associées aux fusions et de s'appuyer sur des techniques statistiques, économétriques ou quantitatives pointues pour mener à bien leur analyse.

Le Président souhaite la bienvenue à Richard Gilbert, professeur d'économie à l'université de Californie à Berkeley et ancien Conseiller général adjoint en économie de la division Antitrust du ministère américain de la Justice. M. Gilbert est invité à présenter un bref exposé pour ouvrir la table ronde et à participer ensuite aux discussions qui suivront. Sa présentation est axée sur sa propre expérience acquise dans l'analyse des fusions complexes à la fois au sein de l'autorité de la concurrence, en tant que consultant pour le secteur privé dans le cadre de fusions de grande envergure et du point de vue universitaire.

I. Remarques préliminaires du professeur Gilbert

Le professeur Gilbert précise que sa présentation sera principalement consacrée aux fusions horizontales. Dans un premier temps, il examinera certains des nouveaux outils d'analyse, développés – tout récemment pour certains – et appliqués avec plus ou moins de succès aux fusions horizontales.

L'analyse des effets unilatéraux sur la concurrence fait référence à une méthode statistique fondée sur la théorie des jeux, généralement appliquée à des marchés où les produits sont différenciés. Les économistes la baptisent également « méthode Nash-Bertrand ». Il s'agit d'une analyse statique de la maximisation des bénéfices, fondée sur l'hypothèse selon laquelle chaque entreprise maximise ses bénéfices en déterminant ses prix sans tenir compte du comportement des autres entreprises du secteur en matière tarifaire. L'analyse des effets unilatéraux sur la concurrence s'appuie sur un modèle économétrique de la demande, dont la fiabilité dépend des données disponibles sur les prix. Les données relatives aux coûts sont relativement moins importantes, car cette méthode part en réalité du principe selon lequel les coûts marginaux qui interviennent dans la stratégie de maximisation des bénéfices sont quasiment impossibles à mesurer.

Les modèles des offres d'équilibre sont également fondés sur la théorie des jeux mais sont généralement appliqués à des marchés où les produits sont similaires. Ils ont par exemple été utilisés pour les concentrations opérées dans le secteur de l'électricité. Dans ce cas, il est nécessaire de disposer de données solides sur les coûts afin d'évaluer les offres, tandis que les données relatives à la demande revêtent moins d'importance. Il s'agit là encore d'un modèle statique, qui a été utilisé lors de la tentative de fusion entre Exelon et Public Service Enterprise Group, deux distributeurs d'électricité situés dans l'est des États-Unis.

Autre méthode d'analyse présentée par le professeur Gilbert : *l'analyse de la demande résiduelle*. Mise au point par John Baker et Timothy Bresnahan, cette méthode a également été utilisée dans le cadre de la fusion Exelon/Public Service Enterprise Group aux États-Unis. Elle nécessite aussi des données

fiables sur les coûts ou les offres : ces données peuvent concerner soit le coût marginal des centrales électriques soit les offres réelles qui ont été soumises sur le marché de gros de l'électricité. Elle a été appliquée à un regroupement de producteurs d'électricité qui tient un marché de gros au comptant pour les capacités horaires. Il est possible d'examiner les offres afin d'estimer les effets de la fusion sur le marché de gros. À l'instar du modèle des offres d'équilibre, les données relatives à la demande revêtent moins d'importance, ce modèle étant généralement utilisé dans l'hypothèse d'une demande fixe. Il s'agit là encore d'un modèle statique, qui ne tient pas compte des interactions dynamiques. Il convient de noter que l'analyse de la demande résiduelle est une analyse partielle et non pas une analyse d'équilibre complète.

L'analyse transversale est une autre méthode utilisée de plus longue date : elle consiste à étudier différents marchés sur différentes périodes pour déterminer comment une modification de la structure d'un marché peut avoir des répercussions sur les prix et les bénéfices. Cette méthode aussi nécessite des données fiables sur les prix. Elle comporte un risque potentiel lié au « biais de sélection » : il est donc essentiel de s'assurer que la seule caractéristique qui diffère entre les marchés et les périodes chronologiques est uniquement la structure du marché. Elle a notamment été utilisée lors de la fusion des deux géants américains du matériel de bureau, Office Depot et Staples, qui a été remise en cause par la FTC sur la base des résultats de cette analyse.

Au vu des différentes méthodes d'analyse des fusions horizontales, un certain nombre de défis s'imposent aux autorités de la concurrence. Premier défi : le volume de données important nécessaire pour mener à bien ces analyses. Deuxième défi : le temps, dans la mesure où l'examen des fusions est généralement mené dans des délais très courts. Troisième défi : les compétences nécessaires, dans la mesure où ces méthodes sont complexes et peuvent facilement donner lieu à des erreurs. Autre défi de taille : les coûts associés à la compilation des données et à l'acquisition des compétences nécessaires pour procéder à ce type d'analyse. Enfin, chaque modèle est fondé sur des hypothèses implicites qui lui sont propres. Statiques, ils ne tiennent compte ni des interactions dynamiques ni des mesures prises pour préserver la compétitivité, comme le repositionnement de la marque qui peut être décidé à l'issue d'une fusion. Par ailleurs, ils ne modélisent pas de manière explicite l'entrée sur le marché et les gains d'efficience. Pour toutes ces raisons, le professeur Gilbert estime que les analyses de ce type tendent à réagir aux événements plutôt qu'à les anticiper, ce qui signifie que l'autorité de la concurrence tend davantage à examiner les dossiers présentés par les parties plutôt qu'à procéder à une analyse indépendante. Cette stratégie s'explique également par la difficulté d'obtention des données, ainsi que par le fait que les autorités n'ont souvent d'autre choix que de s'appuyer sur les données fournies par les parties concernées.

Le professeur Gilbert poursuit en présentant des exemples concrets, notamment le projet de fusion entre Direct TV et Echostar, les deux principaux prestataires de services de télévision par satellite aux États-Unis. Ce marché est caractérisé par une concurrence soutenue de la part des câblo-opérateurs dans les zones desservies par le câble et par une concurrence limitée de la part de la télévision hertzienne. Il a été déterminé que la télévision en ligne ne faisait pas partie de ce marché, ce qui signifie que cette fusion aboutirait à un duopole dans les zones desservies par le câble et à un monopole dans les régions non desservies par le câble. La question de savoir si le câble numérique est indispensable pour concurrencer la télévision par satellite ou si le câble analogique suffit a suscité des débats, mais il ne s'agit pas d'un enjeu fondamental.

Les parties à cette fusion ont fait valoir un certain nombre d'arguments : elles revendiquaient notamment que les groupes de télévision par satellite Echostar et Direct TV sont en concurrence avec les câblo-opérateurs et non entre eux, tandis que la nature de la concurrence dans ce secteur consiste à attirer les abonnés aux services de télévision par câble et non les abonnés aux services de télévision par satellite fournis par d'autres prestataires. Pour soutenir leurs arguments, les parties ont cité le faible taux d'attrition (qui correspond aux transferts des abonnés d'un opérateur à un autre) entre Direct TV et Echostar. Elles

ont également insisté sur le fait que la concurrence avec les câblo-opérateurs protège les consommateurs même s'ils n'ont pas accès au service, en raison de la politique tarifaire homogène pratiquée pour la télévision par satellite à l'échelle nationale, qu'elle soit soumise à la concurrence du câble ou non. Par ailleurs, les parties à la fusion ont fait observer que la fusion serait à l'origine d'importants gains d'efficience, dans la mesure où la plupart des émissions des deux opérateurs proposent un contenu identique. À l'issue de la fusion, les deux parties seront en mesure d'épargner de la capacité en vue de proposer d'autres services, en particulier un nombre plus important de programmes locaux et davantage de programmes en haute définition (films, sport, émissions communautaires, *etc.*).

L'analyse de cette fusion s'est heurtée à de nombreux obstacles. Tout d'abord, le niveau globalement homogène des tarifs a sensiblement compliqué le calcul de l'élasticité-prix : l'analyse a plutôt cherché à confirmer l'élasticité de la demande en analysant comment la demande de services de télévision par satellite réagissait à la variation du prix des offres locales de services de télévision par câble. Toutefois, cette méthode s'est révélée relativement complexe et il a été très difficile d'obtenir des résultats fiables quant aux estimations de l'élasticité du marché, que ce soit pour la demande totale de services de télévision par satellite ou pour la demande relative à chaque fournisseur, estimations indispensables pour évaluer les conséquences de la fusion. Dans ce cas précis, les outils économétriques n'ont pas abouti à des chiffres concluants mais ont permis d'éclairer l'analyse et d'évaluer celle fournie par les parties à la fusion. D'autres éléments se sont révélés plus importants, comme les études de marché, le comportement des consommateurs ou les documents stratégiques des parties, car ils étaient plus directement reliés aux tendances du marché. Dans ce cas, les outils économétriques ont davantage servi à valider les résultats des études de marché plutôt qu'à procéder à l'analyse complète de la fusion en elle-même.

Second exemple proposé par le professeur Gilbert : le projet de fusion entre Exelon et Public Service Enterprise Group (PSEG), deux importants fournisseurs d'électricité aux États-Unis. Exelon dessert les particuliers dans les états de l'Illinois et de la Pennsylvanie, tandis que PSEG dessert une clientèle elle-aussi composée de particuliers dans le New Jersey. Les deux entreprises étaient en concurrence pour la vente d'électricité en gros dans les régions du Mid-Atlantic, de l'Illinois, de la Caroline du nord, de la Virginie occidentale et de l'Ohio. Elles appartenaient toutes deux à un regroupement de producteurs d'électricité opérant dans les états du Mid-Atlantic. L'analyse de la fusion visait à évaluer l'impact de ce rapprochement sur la concurrence sur le marché de gros. Dans cette région plus particulièrement, la nouvelle entité aurait contrôlé près de la moitié de la capacité de génération d'électricité. La concurrence sur le marché de l'électricité vendue aux particuliers n'entrait pas en ligne de compte, dans la mesure où ce dernier est principalement réglementé par l'État.

Dès le départ, cette fusion s'est révélée particulière : si l'on analyse l'ensemble de la région couverte par le marché de gros pour calculer l'indice de Herfindahl-Hirschman, ce dernier s'établit à 2 100 environ avec un delta de 1 800 points, ce qui ne suscite normalement pas d'inquiétude dans la plupart des opérations de fusion. Il ne s'agissait pas d'un marché particulièrement concentré à proprement parler. Néanmoins, l'analyse quantitative a clairement identifié des problèmes potentiels à régler. L'autorité en charge de l'analyse a eu la chance de disposer de gros volumes de données sur les offres, fournies par le regroupement des producteurs d'électricité. Cependant, l'analyse s'est avérée complexe compte tenu du nombre important de marchés concernés (plus de 17 000 marchés par an) et de leur diversité géographique, les contraintes de transmission donnant naissance à des marchés locaux.

L'analyse de la demande résiduelle concurrentielle est fondée sur le principe d'une demande fixe, dans l'hypothèse d'une concurrence entre tous les acteurs du marché. Elle calcule la demande résiduelle pour les parties à la fusion, ainsi que le niveau de production permettant de maximiser les bénéfices pour le tarif concerné. Si l'analyse est effectuée avant et après la fusion, l'autorité de la concurrence est en mesure d'identifier l'écart de production entre les deux situations et d'en déduire l'impact sur le prix. Dans ce cas, l'analyse a montré que pour un niveau de demande de 17 500 MWh, l'impact de la transaction sur le prix

serait potentiellement très élevé. Ce type d'analyse a permis au ministère américain de la Justice de simuler les effets de la fusion dans l'hypothèse de nombreux scénarios différents, ce qui l'a conduit à approuver la fusion sous certaines conditions, telles que des cessions ciblées et des obligations de service.

Pour conclure ces remarques préliminaires, le professeur Gilbert a souligné à quel point ces nouveaux outils d'analyse pourraient permettre d'améliorer la précision des examens réalisés avant une fusion. Le résultat de l'examen dépend néanmoins entièrement du modèle et des données utilisés, ce qui signifie qu'il n'est jamais complètement fiable. Une analyse de ce type nécessite du temps et des compétences. Or ces éléments sont souvent limités compte tenu des restrictions auxquelles doivent faire face les autorités de la concurrence dans le cadre de la procédure de fusion. En général, le modèle et l'analyse économétrique sont évalués à l'aune du bon sens. La définition du marché constitue un élément clé : en définissant précisément le marché en cause, on identifie avec précision le groupe de consommateurs le plus vulnérable à l'exercice du pouvoir de marché. Les simulations, enquêtes et études de marché représentent des compléments très utiles pour aboutir à une conclusion marquée au coin du bon sens. Le professeur Gilbert estime qu'il convient d'encourager l'utilisation de ces nouveaux outils en complément des méthodes et techniques traditionnelles.

Le Président remercie le professeur Gilbert pour ses remarques et pour la présentation de ces deux cas de rapprochement instructifs, qui fourniront un point de départ solide aux discussions. Afin de structurer les débats, le Président propose d'axer les commentaires des délégués sur quatre aspects essentiels de l'analyse des fusions complexes : 1) les méthodes d'obtention, de collecte et de traitement de vastes ensembles de données, 2) les méthodes de gestion des analyses quantitatives complexes, 3) les expériences acquises grâce aux enquêtes réalisées auprès des clients et des concurrents et 4) les exemples de fusions complexes, y compris des cas nécessitant d'avoir recours à des experts extérieurs.

II. Modalités d'obtention, de collecte et de traitement de vastes ensembles de données

Le Président partage l'avis du professeur Gilbert selon lequel il est très difficile de procéder à des analyses complexes si l'on ne peut pas s'appuyer sur des données fiables. Dans leurs contributions, de nombreux pays conviennent que l'obtention et le traitement des informations nécessaires pour évaluer une fusion constituent l'un des principaux défis que doit relever l'autorité de la concurrence dans le cadre d'une fusion. Face à des délais serrés, à des ressources limitées et à la nécessité de s'appuyer sur des volumes d'informations de plus en plus importants, les autorités de la concurrence sont contraintes de planifier avec soin leur stratégie en matière de collecte des données. L'identification des informations nécessaires et du stade du processus auquel elles doivent être demandées sont deux étapes essentielles dans le contrôle d'une opération de concentration. Garantir l'exhaustivité, l'exactitude et la fiabilité des données recueillies constitue le fondement d'une analyse pertinente.

Les contributions fournies par le Portugal, la République tchèque et le Brésil examinent les différentes solutions pour collecter efficacement les gros volumes de données nécessaires à l'analyse quantitative. Le Président invite ces délégations à traiter cette question de manière plus détaillée.

La délégation du Portugal explique que deux récentes opérations de fusion de grande envergure, menées respectivement dans le secteur des télécommunications et dans le secteur bancaire, ont permis à l'autorité de la concurrence portugaise d'acquérir une certaine expérience dans la collecte de vastes ensembles de données. Dans les deux cas, l'impact important de ces rapprochements sur l'opinion publique a convaincu l'autorité de la concurrence de procéder à une analyse quantitative afin de compléter et de corroborer l'analyse qualitative plus traditionnelle. S'agissant de la fusion réalisée dans le secteur des télécommunications, une étude menée par un cabinet de conseil sur l'utilisation des services téléphoniques, de l'Internet et des autres services était déjà disponible. L'autorité de la concurrence s'est donc appuyée sur cet ensemble de données pour évaluer l'élasticité de la demande. Les débats sur les résultats de cette

analyse se sont principalement concentrés sur certains des problèmes déjà mis en avant par le professeur Gilbert, à savoir le problème de la flexibilité de la demande.

Dans le secteur bancaire, l'autorité de la concurrence a dû recueillir des données spécialement à l'occasion de l'opération, principalement auprès des banques. L'autorité a donc envoyé des questionnaires à dix banques, principalement axés sur les crédits hypothécaires destinés aux ménages et aux PME et sur les emprunts à court et moyen terme. L'une des leçons tirées de cet exercice est que l'élaboration d'un questionnaire viable demande beaucoup de temps et de travail. Ainsi, les données fournies par certaines banques ne correspondaient pas aux critères fixés par l'autorité de la concurrence, qui a dû préciser ses exigences en termes de qualité des données afin d'améliorer les informations collectées. Malheureusement, il n'existe aucune alternative pour les fusions complexes : l'autorité en charge de l'examen doit recueillir les données et procéder à une analyse quantitative pour prendre sa décision en toute connaissance de cause.

Le représentant de la République tchèque intervient pour faire partager l'expérience de son pays dans la collecte de données auprès d'autres institutions publiques. Dans le cadre de la fusion Bayer / Aventis, l'autorité de la concurrence devait examiner la fusion des activités relatives à la protection des cultures et aux produits chimiques activateurs de la croissance. Alors que plus de 600 produits étaient concernés par ce rapprochement, l'autorité de la concurrence n'a reçu qu'un ensemble limité de données de la part des parties à la fusion, qui ne lui permettaient pas d'examiner tous les marchés concernés. Pour y parvenir, elle a donc demandé à l'autorité de tutelle du secteur de lui fournir des données plus exhaustives sur la consommation de chacun des produits. Sur la base de ces données, l'autorité de la concurrence a été en mesure d'analyser avec précision le marché. Ce résultat a été possible grâce à une disposition générale du droit de la concurrence tchèque, qui autorise l'autorité de la concurrence à demander à tout organe administratif public de lui fournir des informations en sa possession si elles sont utiles pour l'examen du projet de fusion. Toutefois, malgré cette disposition, l'autorité de la concurrence s'est parfois heurtée à la résistance d'autres organismes publics ne souhaitant pas partager leurs informations. Tel est le cas par exemple de l'office statistique tchèque, qui possède une base de données extrêmement étendue mais refuse de la partager.

Le délégué du Brésil souligne que la législation nationale sur les concentrations autorise les parties à procéder à la fusion même si l'examen de l'autorité de la concurrence n'est pas encore terminé. Ce système a largement compliqué la tâche des autorités, dans la mesure où les parties ne sont pas incitées à fournir les informations nécessaires pour procéder à une analyse valable. L'expérience du Brésil montre qu'il est généralement plus facile de recueillir les données lorsque la fusion concerne le secteur des biens de consommation, puisque les informations sont collectées par de nombreux consultants privés, comme AC Nielsen. Il est beaucoup plus difficile d'obtenir des données si la fusion concerne le secteur des produits intermédiaires, auquel cas l'autorité de la concurrence est contrainte de s'appuyer davantage sur les informations fournies par les parties. Et même dans ce cas, la tâche est difficile. Dès lors qu'il s'agit d'informations sur les prix par exemple, les données à recueillir varient : prix utilisés par l'État *via* le secrétariat aux échanges extérieurs, prix répertoriés par les parties, prix effectifs observés lors des transactions, *etc*. Toutes ces informations doivent être fournies par les parties.

Dans la plupart des dossiers relatifs à des fusions complexes traités par les autorités de la concurrence au Brésil, les données les plus fiables ont été fournies lorsqu'un concurrent opposé à la fusion a réalisé sa propre analyse quantitative, ce qui a contraint les parties à la fusion à faire de même pour réfuter les simulations et études économétriques du plaignant. Néanmoins, si les données ne sont pas fournies par les parties, la tâche de l'autorité de la concurrence se complique puisqu'elle doit se procurer les données sur le marché, dans le cadre d'une procédure administrative longue et complexe. Les difficultés sont les mêmes si l'autorité de la concurrence doit avoir recours à un expert pour traiter les données. Pour un pays en développement et/ou un jeune pays développé tel que le Brésil, il s'agit de défis de taille et les autorités de la concurrence ont dû apprendre rapidement comment obtenir des données auprès des parties à la fusion et

se renseigner sur la méthode adoptée pour recueillir les données et sur le type de logiciels utilisé, de manière à former leurs équipes afin qu'elles soient en mesure d'évaluer les données fournies.

III. Comment utiliser les ensembles de données pour l'analyse quantitative complexe dans le cadre de l'examen des fusions

Le Président remercie les délégations du Portugal, de la République tchèque et du Brésil pour leurs interventions et aborde le prochain thème des débats, qui porte sur l'utilisation des données une fois qu'elles ont été collectées. L'analyse des fusions est de plus en plus complexe. Les autorités de la concurrence ont souvent recours à des analyses et à des modèles quantitatifs pour surmonter certaines difficultés, comme la définition du marché en cause, la mesure du pouvoir de marché, l'analyse des effets sur la concurrence et l'estimation des gains d'efficience probables. Ces techniques quantitatives de pointe nécessitent de traiter de gros volumes de données et leur utilisation mobilise d'importantes ressources à la fois en interne et en externe. Il est donc essentiel de comprendre dans quelle mesure les autorités de la concurrence peuvent s'appuyer sur ces techniques et à quelle utilisation elles doivent être consacrées.

Le Président fait observer que plusieurs contributions soumises par les délégations examinent les différentes expériences des autorités de la concurrence dans l'utilisation d'outils de modélisation et de techniques économétriques pointues. Le Président invite la Nouvelle-Zélande à présenter sa méthode de modélisation pour l'examen des fusions.

Le représentant de la Nouvelle Zélande explique qu'au fil des ans, la Commission de la concurrence a acquis une solide expérience dans l'utilisation de techniques de modélisation et autres techniques quantitatives pour l'analyse des fusions. Le recours croissant à ce type de techniques dans le domaine des fusions est lié à l'exigence imposée à la Commission par la Cour d'appel : la Commission est en effet habilitée à autoriser des transactions qui ont un effet restrictif sensible sur la concurrence s'il est prouvé que cela apporte des avantages. Certaines des fusions examinées par la Commission impliquaient des volumes de données conséquents, à l'instar du récent projet de fusion dans le secteur des supermarchés, actuellement en procédure d'appel, pour lequel la Commission a utilisé les données des supermarchés obtenues par lecture optique.

La Commission a récemment eu recours à des modèles pour faciliter la définition des marchés. Par exemple, elle a utilisé des outils économétriques et autres pour déterminer la définition de marché la plus juste entre le beurre et les diverses matières grasses jaunes. La Commission a également procédé à des simulations pour visualiser l'évolution des prix suite à une fusion, à l'aide du modèle BERT, dérivé du modèle de Bertrand, selon lequel la fonction de la demande est estimée *via* la technique PCAIDS (Proportionality Calibrated AIDS) plutôt que par le biais d'outils économétriques. Ce modèle a été utilisé dans le cadre d'un projet de fusion sur le marché des loueurs de voitures il y a plusieurs années, projet qui revêt une importance particulière en ce qui concerne l'illustration des variations de prix attendues. Plus récemment, la Commission a utilisé ce modèle dans le dossier des supermarchés évoqué précédemment, en réponse aux informations fournies par les parties à la fusion. Au fil des ans, la Commission a aussi eu recours à la modélisation financière de l'entrée sur le marché : dans un dossier récent relatif à la collecte des déchets, elle a ainsi étudié les modèles d'entrée sur deux marchés pertinents pour les sociétés concernées.

Enfin, la Commission s'est appuyée sur la modélisation économétrique, notamment en 2006 lorsqu'elle a étudié la proposition de la fédération néo-zélandaise de rugby de plafonner les salaires. Bien qu'il ne s'agisse pas d'un projet de fusion, ce cas illustre de manière pertinente l'utilisation des outils de modélisation économétrique par la Commission. Dans ce cas précis, elle cherchait à tester le degré d'incertitude des hypothèses de résultats. Il est intéressant de noter que lorsque la Commission a cessé de tester l'hypothèse fournie par la fédération (qui l'aurait conduit à interdire le plafonnement des salaires),

elle a procédé à sa propre analyse en examinant d'autres théories aux termes desquelles le plafonnement des salaires pourrait avoir des effets positifs et elle a identifié une nouvelle hypothèse permettant d'autoriser le plafonnement des salaires.

Forte de son expérience des outils de modélisation et des techniques d'analyse quantitative, la Commission a abouti à la conclusion qu'ils constituent une aide précieuse pour évaluer différents aspects d'une fusion, notamment pour définir les marchés, déterminer les perspectives d'entrée et simuler l'impact de la fusion sur les prix. Néanmoins, s'ils sont en mesure de fournir, au mieux, un aperçu de la réalité, les modèles aboutissent rarement à des résultats concluants et il est souvent possible d'identifier des hypothèses alternatives. C'est pourquoi la Commission compare les résultats de l'analyse quantitative à ceux de l'examen qualitatif. En règle générale, la Commission estime que la définition d'hypothèses et de structures sous-jacentes améliore la transparence des modèles pour étayer l'analyse, ce qui permet de se concentrer sur les questions clés et facilite la mise à l'épreuve des principaux paramètres.

La Commission est consciente que l'utilisation de modèles comporte des risques élevés d'erreurs, qui pourraient nuire à sa réputation dans le cadre d'une action en justice, d'autant plus que les décisions relatives aux fusions doivent généralement être prises dans des délais très courts. Dans ces conditions, il est très important que des mesures de contrôle de la qualité et de reddition de comptes soient mises en place pour ces modèles. C'est pourquoi la Commission a instauré une procédure de contrôle qualité relativement formelle pour les modélisations. La politique adoptée en la matière tient compte du fait que l'absence de contrôle des modélisations peut aboutir à des modèles à la structure et au contenu défaillants, que les données et les hypothèses non vérifiées comportent des risques et qu'il peut exister des contrôles inadaptés, un audit indépendant insuffisant ou absent et, par conséquent, des risques d'erreur. La politique instaure donc des mécanismes d'équilibre afin de garantir le contrôle des modèles.

Le Président remercie la délégation de la Nouvelle-Zélande pour son intervention et invite le délégué de l'Irlande à présenter les conclusions tirées de l'analyse de 28 fusions complexes par l'autorité de la concurrence irlandaise entre 2003 et 2007.

Le délégué de l'Irlande souligne que, jusqu'à présent, l'autorité de la concurrence irlandaise a analysé plus de 360 fusions, dont 28 seulement ont été jugées complexes. Sur ces 28 fusions, seules 5 ont nécessité de recourir à des techniques quantitatives. L'analyse de ces cinq fusions a abouti aux conclusions suivantes.

- Tout d'abord, l'analyse quantitative a été appliquée dans deux cas pour définir le marché et dans cinq cas pour analyser les effets de la fusion sur la concurrence. L'autorité de la concurrence n'a pas eu recours à ces techniques pour estimer les gains d'efficience éventuels qui découleraient de la fusion étant donné que les parties à la fusion n'avaient avancé aucun argument dans ce sens.

- Ensuite, les techniques quantitatives ont été utilisées dans les affaires pour lesquelles d'importants volumes de données sur les prix étaient disponibles. Ces données étaient généralement recueillies au niveau du marché de détail par des sociétés telles qu'AC Nielsen. Toutefois, pour certaines affaires, les parties disposaient également d'informations complètes obtenues par lecture optique, pouvant être utilisées pour l'analyse quantitative. Dans tous les dossiers examinés, les ensembles de données ont été fournis par les parties et l'autorité de la concurrence n'a pas eu à se les procurer pour mener à bien son examen.

- Dans la plupart des cas, c'est l'autorité de la concurrence qui a pris l'initiative de procéder à une analyse quantitative. Néanmoins, dans une affaire récente relative au marché des boissons non alcoolisées, les parties ont procédé à une analyse de corrélation et de cointégration mais c'est

l'autorité de la concurrence qui a pris l'initiative de poursuivre ces travaux d'analyse en vue de calculer les élasticités et de définir le marché en cause.

- L'analyse quantitative n'est pas appliquée de manière isolée mais plutôt pour renforcer d'autres données qualitatives, comme les enquêtes et les documents internes, de manière à conclure si la fusion aboutit ou non à une restriction sensible de la concurrence.

- Enfin, compte tenu de sa petite taille et des ressources limitées qu'elle peut consacrer à ce type d'analyse, l'autorité de la concurrence irlandaise tend à acquérir ces compétences sur le marché (par exemple auprès des universités) plutôt qu'à les développer en interne.

Le Président évoque ensuite la contribution de la France, qui décrit les méthodes d'analyse utilisées par le Conseil de la concurrence dans le cadre de la fusion Marine Harvest NV / Pan Fish ASA, notamment les analyses statistiques et économétriques menées à bien pour définir le marché en cause et évaluer les effets de l'opération sur la concurrence.

La délégation de la France explique que dans l'affaire citée par le Président, l'un des principaux éléments de l'analyse concernait la définition du marché en cause. Le Conseil avait plus particulièrement pour mission de déterminer s'il existait des marchés distincts pour le saumon frais produit en Écosse, en Norvège et en Irlande respectivement. Les parties à la fusion ont procédé à plusieurs tests, à savoir un test de corrélation, un test stationnaire et un test de cointégration. En dépit des difficultés posées par ces tests et de leur complexité, le Conseil a été particulièrement satisfait de leurs résultats, qui lui ont permis de conclure que la portée géographique du marché incluait les zones de production de l'Écosse, de la Norvège et de l'Irlande.

Outre l'utilisation de ces outils pour définir le marché en cause, le Conseil a également eu recours à des techniques quantitatives pour évaluer les effets unilatéraux de l'opération. Les parties ont proposé un modèle économétrique que le Conseil a jugé approprié pour ce type d'analyse. Cependant, dans la mesure où le modèle utilisé par le Conseil pour déterminer les effets unilatéraux éventuels de la fusion sur un marché mondial a abouti à des résultats différents de ceux fournis par les parties, le Conseil a proposé aux parties de segmenter le marché et d'analyser les effets unilatéraux sur le marché du saumon frais d'Écosse uniquement. L'analyse a montré des effets unilatéraux importants sur ce marché et le Conseil a discuté avec les parties de la possibilité de mettre en œuvre une procédure d'engagement. Dans cette affaire, l'analyse quantitative s'est révélée particulièrement utile au Conseil et n'a pas consommé beaucoup de ressources puisque la plupart du travail a été réalisé par les parties elles-mêmes, ce qui a permis au Conseil de concentrer ses efforts sur l'élaboration des remèdes en fonction des craintes potentielles soulevées par les résultats de l'analyse.

Le Président s'adresse ensuite à la délégation néerlandaise et l'invite à présenter les travaux d'analyse réalisés dans le cadre de la fusion entre Nuon et Reliant, dans le secteur de l'énergie.

La délégation des Pays-Bas fait le point sur l'expérience acquise dans le cadre de la fusion Nuon/Reliant, qui n'est pas complètement positive puisque la décision de l'autorité de la concurrence a finalement été annulée par une décision de justice. Néanmoins, cette affaire s'est révélée particulièrement intéressante en raison du volume important de données disponibles pour procéder à une analyse quantitative. L'autorité de la concurrence néerlandaise (NMa) avait déjà à sa disposition un volume important de données disponibles et elle pouvait en outre s'appuyer sur les informations recueillies par l'autorité de tutelle du secteur. Ces données ont permis à la NMa d'exécuter des modèles de simulation mis au point par des experts en économie. La NMa a notamment réalisé un modèle d'équilibre de la fonction de l'offre – également appelé modèle des offres d'équilibre – dont elle a validé les résultats en les comparant à ceux du modèle de Cournot, pour parvenir à la conclusion que la fusion entraînerait une hausse des prix

de 10 % environ. Néanmoins, le tribunal a finalement annulé la décision administrative compte tenu du débat suscité par les modalités de modélisation des hausses de prix. En dépit des critiques adressées aux modèles de simulation, la NMa estime qu'ils offrent un avantage décisif : dans un secteur comme celui de l'électricité, l'analyse quantitative a le mérite d'éclairer les discussions sur les remèdes nécessaires pour répondre aux préoccupations relatives à la concurrence. Dans ces situations, l'utilisation d'un modèle peut faciliter les discussions avec les parties et offrir un point de départ plus efficace que n'importe quel indicateur structurel.

Le Président remercie la délégation néerlandaise et invite le BIAC à faire part de son point de vue sur l'importance de ce type d'analyse économique et plus particulièrement sur la rigueur et la prudence dont les autorités de la concurrence doivent faire preuve pour mener à bien ce type d'analyse complexe.

Le représentant du BIAC souligne qu'une analyse minutieuse des données constitue la pierre angulaire d'une analyse économique efficace. Toute analyse économique qui s'appuie sur des hypothèses factuelles erronées ou sans fondement ne pourra être que contre-productive et pourrait même aboutir à des résultats infondés. Le BIAC fait observer que l'analyse menée par les autorités de la concurrence intègre souvent des hypothèses factuelles erronées. Il est essentiel que les hypothèses factuelles qui étayent l'analyse économique correspondent aux conditions réelles rencontrées par les parties à la fusion, qui ne correspondent pas forcément à celles décrites à l'autorité de la concurrence par des tierces parties, qui sont fréquemment des concurrents des parties à la fusion. Le BIAC remarque également que, comme cela été répété à plusieurs reprises, l'efficacité de l'analyse économique dépend de la fiabilité des données. Aussi surprenant que cela puisse paraître, les parties à la fusion elles-mêmes se rendent souvent à l'évidence qu'en dépit de leurs efforts, elles ne sont pas en mesure de réunir des données suffisamment fiables pour procéder à une analyse économique efficace. Les autorités de la concurrence devraient en tenir compte. Enfin, le BIAC souligne les risques spécifiques liés aux enquêtes, qui devraient être soumises aux mêmes exigences de rigueur que l'analyse économique ou économétrique. Les enquêtes doivent en effet être à la fois objectives et représentatives. Des compétences approfondies sont nécessaires pour mener à bien une enquête et les autorités de la concurrence devraient envisager d'avoir recours à ces compétences lorsqu'elles réalisent leurs propres questionnaires et enquêtes.

IV. Expérience acquise dans les enquêtes réalisées auprès des clients et des concurrents

L'intervention du BIAC fait explicitement référence à la rigueur qu'il convient de respecter pour mener à bien des enquêtes auprès des clients et des concurrents. Les contributions des pays montrent que les autorités de la concurrence ont régulièrement recours à des enquêtes. Plusieurs contributions proposent des exemples pertinents sur la manière de concevoir et/ou de commander efficacement des études de marché, illustrant les avantages et les inconvénients des enquêtes auprès des clients et des enquêtes auprès des concurrents. La question de la conception d'enquêtes objectives et ciblées pour sonder les intérêts en jeu revêt une importance capitale et le partage des expériences dans ce domaine est essentiel pour les autorités de la concurrence.

Pour échanger les expériences dans l'utilisation des enquêtes, tant en ce qui concerne leurs points forts que leurs points faibles, le Président invite la Commission européenne à présenter l'enquête clients utilisée dans le cadre de la récente fusion Ryanair / Air Lingus.

Le représentant de la Commission européenne rappelle qu'il a été décidé de réaliser une enquête auprès des consommateurs car au cours de l'enquête, la Commission a réalisé qu'il lui manquait des informations sur les préférences des clients. Or ces informations ne pouvaient être obtenues par le biais du test de marché traditionnel, réalisé sous forme de questionnaire. Pour le projet de fusion Ryanair / Air Lingus, la Commission avait pour mission de déterminer si les deux parties étaient substituables l'une l'autre et, si oui, dans quelle mesure elles seraient entravées par des tierces parties sur leur marché. Pour

répondre à ces questions, la Commission a estimé qu'il était nécessaire de recueillir le point de vue des clients. L'enquête a abouti aux conclusions suivantes :

- La conception de l'enquête revêt une importance capitale : la Commission a estimé qu'il était important de s'assurer avant toute chose que les questions soient ciblées et représentatives. Elle a donc eu recours aux services d'un consultant externe pour lui fournir une assistance technique dans la conception de l'enquête et se charger du travail de terrain. Le champ du questionnaire a été limité volontairement, pour ne cibler que les questions clés : compte tenu des délais serrés, plus le questionnaire est court, plus il est efficace.

- La sélection de l'échantillon est elle aussi cruciale : la Commission devait garantir la représentativité de l'enquête, ce qui dépendait en grande partie du sous-traitant. Elle a également consulté les parties à l'avance sur la version préliminaire de l'enquête, de manière à recueillir leurs commentaires non seulement sur les questions choisies mais également sur l'échantillon retenu.

- Le facteur temps joue un rôle déterminant : étant donné que l'enquête ne pouvait être lancée qu'une fois établie la direction dans laquelle l'affaire s'orientait, la Commission ne pouvait commencer à travailler sur l'enquête clients qu'à partir de la phase II de l'examen du projet de fusion. Des problèmes pratiques ont dû être résolus au départ, comme l'obtention du feu vert pour le budget, l'achat du logiciel approprié, la formation du personnel à son utilisation, *etc.,* qui ont eu pour effet de ralentir quelque peu la procédure. S'agissant du budget, la Commission est parvenue à la conclusion qu'il était relativement difficile d'élaborer l'enquête et de mener en parallèle des négociations en interne pour obtenir le budget.

Selon la Commission, la principale leçon tirée de ce dossier est que les enquêtes clients peuvent avoir un impact sensible sur l'orientation de l'affaire. Dans l'ensemble, cette expérience a été très positive. Néanmoins, elle a montré qu'il était essentiel de s'appuyer sur une enquête sur mesure et d'identifier la nécessité d'une telle enquête dès le début de l'examen, ce qui suppose que l'autorité de la concurrence devrait tenter d'identifier les préjudices potentiels à un stade relativement précoce du processus. L'enquête menée dans le cadre du projet de fusion Ryanair / Air Lingus a également confirmé qu'il est nécessaire 1) d'acquérir un logiciel adapté, 2) d'avoir recours aux services de consultants formés à ce logiciel et 3) de faire approuver le budget à l'avance.

Le Président s'adresse ensuite à la délégation du Royaume-Uni, qui a indiqué dans sa contribution que la Commission de la concurrence britannique avait fréquemment recours aux enquêtes. Le Président invite le délégué du Royaume-Uni à faire partager aux autres délégations les avantages de cet outil.

Le délégué du Royaume-Uni explique que la Commission de la concurrence traite environ dix projets de fusion en phase II chaque année et que des enquêtes clients sont utilisées dans un peu moins de la moitié de ces cas. Ces enquêtes ont pour objectif de recueillir des données fiables et objectives sur les décisions d'achat des consommateurs. L'expérience britannique corrobore celle de la Commission européenne, notamment en ce qui concerne la nécessité de garantir la fiabilité de l'échantillon et de la conception du questionnaire. Malheureusement, il est souvent nécessaire, dans les affaires de fusion, de faire des compromis en termes de qualité, au profit des délais. Au Royaume-Uni, la procédure d'examen des projets de fusion s'étale sur une période de 15 à 16 semaines. L'élaboration du questionnaire, la sélection des experts et les tests auprès des parties à la fusion demandent quelques semaines. À la 3^{e} ou 4^{e} semaine, le questionnaire peut être envoyé et les réponses devront être transmises et traitées avant les semaines 9 ou 10 pour pouvoir être valables dans le cadre de l'enquête. Le calendrier auquel doit se soumettre la Commission de la concurrence est donc particulièrement serré.

À l'instar d'autres délégations, le Royaume-Uni souligne l'importance de concevoir soigneusement l'enquête, de renforcer les compétences existantes et d'avoir recours aux compétences internes, grâce à des équipes solidement formées et sensibilisées aux écueils caractéristiques de la conception d'enquêtes. Pour améliorer l'efficacité des enquêtes, la Commission de la concurrence a publié un rapport consacré à la gestion des enquêtes clients et concurrents, qui insiste sur la nécessité pour les autorités de la concurrence de cibler les questions sur les points considérés comme particulièrement importants pour l'enquête. Par ailleurs, les autorités de la concurrence devraient apporter un soin particulier à l'élaboration du questionnaire, afin d'obtenir des réponses pertinentes et de veiller à recueillir des données fondées sur l'expérience plutôt que sur des opinions ou des réponses incertaines à des hypothèses distantes. Les autorités de la concurrence doivent avant tout prendre conscience que les enquêtes ne constituent qu'une preuve parmi d'autres : c'est pour cette raison que la Commission de la concurrence ne s'appuiera jamais sur les résultats d'une enquête pour trancher en faveur et en défaveur d'une fusion.

Le Président remercie la délégation britannique et se tourne vers celle du Japon pour l'inviter à présenter l'expérience de la Commission de la concurrence japonaise en matière d'enquête auprès des concurrents et des clients.

Le délégué du Japon confirme que les enquêtes menées sous forme d'entretiens et de questionnaires jouent un rôle déterminant dans le contrôle des opérations de concentration au Japon. La Commission de la concurrence japonaise est souvent amenée, dans le cadre de l'examen de fusions complexes, à réaliser des enquêtes sous forme d'entretiens ou de questionnaires au cours de la phase II de la procédure. Les enquêtes sous forme de questionnaires sont plus souvent utilisées pour recueillir l'opinion des utilisateurs ou des fournisseurs plutôt que des concurrents. La Commission veille à ce que les données collectées soient objectives. En règle générale, l'échantillon d'utilisateurs ou de fournisseurs est sélectionné à partir d'une liste fournie à la Commission par les parties à la fusion. En sélectionnant les utilisateurs ou les fournisseurs, la Commission cherche à ce qu'ils soient les plus représentatifs du marché. Elle accorde également une importance particulière à la gestion des informations : pour les enquêtes sous forme de questionnaire, il est nécessaire de traiter les résultats de l'enquête du point de vue statistique et de veiller à préserver la confidentialité des données obtenues (telles que le nom des entreprises et les informations relatives à la personne interrogée). Il s'agit d'un point essentiel pour obtenir la coopération des sociétés interrogées. L'utilisation d'une enquête sous forme de questionnaire s'est avérée particulièrement importante dans l'examen de la fusion entre Mitsubishi Tokyo Financial Group et UFJ Holdings en mai 2005. À cette occasion, la Commission a procédé à une enquête auprès des entreprises qui avaient bénéficié d'un prêt des parties à la fusion, en vue d'évaluer les effets de la fusion sur le marché en cause.

V. Fusions complexes nécessitant le recours à des compétences externes

Le Président aborde le prochain thème du débat, à savoir les questions techniques ou complexes nécessitant des compétences qui pourraient ne pas être disponibles au sein de l'autorité de la concurrence. Beaucoup de fusions sont qualifiées de complexes en raison des difficultés auxquelles se trouve confrontée l'autorité de la concurrence en matière de dispositions contractuelles (notamment pour les contrats de licence IP), de technologies de pointe ou de régimes réglementaires, qui entravent l'analyse des effets de la fusion sur la concurrence ou l'évaluation des remèdes indispensables pour autoriser l'opération. Dans certains cas, la complexité tient également au fait que les connaissances nécessaires pour comprendre certaines questions complexes soulevées dans une affaire sont absentes en interne, ce qui contraint les autorités de la concurrence à recourir à des compétences externes. Plusieurs contributions ont abordé ce sujet et examiné la manière dont les autorités de la concurrence relèvent ces défis.

Pour engager le débat, le Président demande à la délégation d'Israël d'expliquer comment l'autorité de la concurrence israélienne (IAA) a résolu les problèmes techniques liés au développement d'une

technologie de prestation de services vidéo dans le cadre d'un rapprochement sur le marché de la diffusion vidéo multicanaux.

Le représentant d'Israël explique que cette fusion concernait Bezeq, The Israel Telecommunication Corporation Ltd., et D.B.S Satellite Services, société dans laquelle Bezeq détenait une participation minoritaire. Bezeq est l'opérateur de télécommunications historique d'Israël, présent dans tous les secteurs de la téléphonie fixe et mobile et déclaré en situation de monopole dans la téléphonie fixe et le haut débit. D.B.S est un bouquet de télévision par satellite qui propose des services de télévision à péage multicanaux *via* le satellite. Bezeq était déjà présent au capital de D.B.S. et a lancé cette opération pour en acquérir le contrôle total. À la fois vertical et horizontal, ce rapprochement était difficile à évaluer compte tenu de la nature dynamique du secteur des télécommunications et des médias, caractérisé par une évolution technologique permanente. Pour l'IAA, le principal défi consistait à identifier quelle technologie s'imposerait en tête du marché pour la prestation de contenu et de services aux abonnés. L'IAA devait également anticiper la stratégie future de l'opérateur de télécommunications Bezeq s'agissant de la mise à niveau de son infrastructure pour accueillir la technologie IPTV. Enfin, l'IAA avait également pour mission d'évaluer les éléments qui pourraient inciter Bezeq à proposer ses services ou l'accès à son infrastructure à des concurrents potentiels. Après avoir étudié minutieusement les progrès technologiques envisageables, l'IAA est parvenue à la conclusion que, dans la mesure où Bezeq aurait le contrôle total de la technologie de télévision par satellite à l'issue de la fusion, il n'aurait aucune incitation à mettre son infrastructure à la disposition de concurrents futurs. C'est pour cette raison que l'IAA s'est opposée à la fusion.

S'agissant des fusions réalisées dans le secteur de la radiodiffusion et des compétences techniques associées, le Président invite la délégation de Slovénie à présenter certaines des difficultés auxquelles elle a été confrontée dans ce domaine.

Avant de répondre à la question, la délégation de Slovénie explique que, conformément à ce qui a déjà été dit par d'autres délégations, l'autorité de la concurrence slovène est en permanence en liaison avec les autorités de tutelle sectorielles dans les affaires de fusion, car elles collectent et traitent de gros volumes de données. Toutefois, ces relations n'ont pas toujours été positives, principalement en raison du fait qu'aux termes de la législation actuelle, les autorités de tutelle ne sont pas contraintes de partager leurs informations avec l'autorité de la concurrence. C'est pourquoi un nouveau projet de loi a été élaboré en vue d'instaurer une amende de 50 000 EUR si les destinataires des questionnaires envoyés par l'autorité de la concurrence ne répondent pas aux enquêtes. À l'heure actuelle en Slovénie, le taux de réponse aux questionnaires est inférieur à 30 %.

Pour répondre à la question du Président sur les fusions réalisées sur le marché de la télévision, le délégué de la Slovénie indique que son pays a récemment examiné une fusion entre deux câblo-opérateurs. Cette opération revêtait une importance particulière, puisqu'il s'agissait des deux premiers acteurs du secteur en Slovénie. Cependant, l'autorité de la concurrence a décidé de ne pas s'opposer à la fusion car l'examen a montré que les câblo-opérateurs opèrent en réseau fermé, ce qui signifie qu'ils ne représentent pas une contrainte les uns pour les autres. Par ailleurs, la fusion aurait donné naissance à une infrastructure Internet susceptible de concurrencer le réseau de téléphonie fixe. Pour parvenir à cette conclusion, l'autorité de la concurrence a estimé le volume du marché et a demandé à l'agence des communications électronique, autorité de tutelle du marché, de lui fournir des estimations sur le développement du marché et des technologies. L'autorité de tutelle a satisfait à la demande de l'autorité de la concurrence, en lui fournissant une analyse de marché qui indiquait que sur le marché de la radiodiffusion, deux concurrents importants présentant un profil financier et technique plus solide que les câblo-opérateurs existants envisageaient un rapprochement. Selon la même source, le marché de la téléphonie fixe était caractérisé par au moins un autre concurrent et de nombreux opérateurs « virtuels ». Au vu de ces éléments, la fusion a été approuvée sans remède.

Le Président constate que les contributions de la Russie et de la Corée font référence aux solutions structurelles adoptées pour acquérir des compétences techniques. Les deux délégations évoquent la création de « conseils d'experts », ayant pour rôle de fournir à l'autorité de la concurrence des conseils et des compétences sur des points techniques dans certains secteurs et marchés spécialisés.

La délégation de Russie prend la parole pour expliquer que les conseils d'experts peuvent s'avérer un outil utile non seulement dans les affaires de fusions complexes mais également dès lors qu'il s'agit de faire respecter le droit de la concurrence. Le service fédéral anti-monopole (FAS) s'appuie sur ces conseils d'experts pour obtenir l'assistance dont il a besoin dans ses efforts visant à défendre les principes de la concurrence sur un marché spécifique. Au cours des deux ou trois dernières années, la Russie a créé plusieurs conseils d'experts dans les secteurs des télécommunications, du gaz, des chemins de fer, de la construction, de l'électricité et de l'agriculture notamment. Les conseils d'experts sont composés de spécialistes d'un secteur particulier, qui sont invités à participer régulièrement à des réunions consacrées à des questions capitales pour leur secteur. Les débats réguliers organisés dans le cadre des réunions des conseils d'experts, conjugués aux études de marché et aux enquêtes réalisées auprès des consommateurs, se sont révélés des sources d'informations particulièrement précieuses dans les affaires où le FAS a décidé d'imposer des remèdes comportementaux ou structurels. Dernièrement, les conseils d'experts ont été consultés pour des projets de fusion dans les secteurs de l'aluminium, du matériel de forage, des engrais et du ciment.

Le délégué de la Corée explique que pour garantir l'objectivité des études de marché dans les affaires de concurrence, la Commission de la concurrence bénéficie du soutien de conseils d'experts dans certains secteurs spécifiques, tels que la finance ou la distribution. Les conseils d'experts se réunissent une à deux fois par an pour débattre des enjeux de la politique de la concurrence dans chacun des secteurs concernés, dans le cadre de réunions de consultation sur la politique de la concurrence. Les conseils d'experts participent également à des réunions *ad hoc* pour apporter leur aide à la Commission de la concurrence dans l'examen des projets de fusion dans leurs secteurs. Ainsi, pour pouvoir obtenir les compétences nécessaires à l'examen du rapprochement entre Kookmi Bank et Korea Foreign Exchange Bank, la Commission a organisé, entre mai et novembre 2006, plusieurs réunions de consultation sur la politique de la concurrence dans le secteur financier. Ces réunions regroupaient des experts en finance provenant d'horizons divers, qui ont apporté à la Commission des informations précieuses et leurs connaissances du secteur financier. La Commission envisage désormais d'augmenter le nombre de conseils d'experts pour couvrir d'autres secteurs tels que les télécommunications et la radiodiffusion.

Le Président remercie les délégations de Russie et de Corée pour leur intervention et invite la délégation des États-Unis à faire le point sur les débats tenus jusqu'à présent, en accordant une attention particulière aux nouveaux outils analytiques mis à la disposition des autorités de la concurrence, aux nombreux avantages qui découlent de l'utilisation de ces outils mais également à la prudence qu'il convient d'adopter en ce qui concerne leur utilisation.

Le représentant des États-Unis fait observer que l'exposé d'ouverture du professeur Gilbert décrivait avec précision la manière dont le ministère américain de la Justice utilise ces nouveaux outils analytiques pour examiner des fusions complexes. Si le ministère de la Justice a régulièrement recours aux analyses économétriques dans le cadre de ses activités visant à faire respecter le droit de la concurrence, il fait également appel à des consultants extérieurs spécialisés afin d'obtenir des informations sur certains aspects spécifiques d'un secteur. Cette stratégie vise à permettre à l'autorité de la concurrence de mieux appréhender le marché en cause et les effets potentiels de la fusion. Ces analyses quantitatives ont fait la preuve de leur utilité non seulement pour comprendre l'opération et ses conséquences mais également pour expliquer devant des tribunaux les raisons des effets anticoncurrentiels d'une fusion. Néanmoins, s'il se fie à son expérience, le ministère de la Justice estime que ce type d'analyse ne peut se substituer entièrement aux analyses structurelles et qualitatives. Comme l'ont déjà souligné d'autres délégations, l'analyse

quantitative est limitée et son efficacité dépend étroitement des hypothèses retenues et de la qualité et de la fiabilité des données disponibles. S'agissant des enquêtes, le ministère de la Justice n'y a pas aussi souvent recours que d'autres pays, ce qui tient en partie aux coûts et aux délais nécessaires pour mener à bien une enquête réellement instructive. Le ministère de la Justice fait parfois appel à des experts extérieurs pour compléter ses compétences en interne, notamment dans les cas où il estime que des experts extérieurs sont mieux placés pour témoigner devant un tribunal.

Les décisions relatives au choix de l'outil à utiliser (analyse économétrique, enquête, experts, *etc*.) sont en grande partie influencées par la nécessité, pour les autorités américaines de la concurrence, de présenter des éléments qui seront reçus comme preuve par le tribunal. Ainsi, pour deux récents projets de rapprochement remis en question par la Federal Trade Commission (FTC), le principal défi à relever ne concernait pas la fiabilité de l'analyse économique pointue qui avait été réalisée (qui reposait en grande partie sur des outils économétriques) mais plutôt l'aptitude à convaincre le tribunal et à simplifier l'argument économique de manière à ce qu'il puisse le comprendre et l'accepter. Dans les deux affaires, le jugement rendu a montré clairement que la FTC n'avait pas réussi à convaincre le tribunal qu'il convenait d'analyser l'opération sous l'angle de l'analyse économique extrêmement pointue réalisée à cette occasion. Le tribunal a préféré, dans les deux cas, retenir une analyse économique beaucoup plus simpliste aux yeux de la FTC, qui aboutissait à la conclusion que l'opération n'avait pas d'impact restrictif sur la concurrence au stade de l'injonction provisoire.

VI. Conclusions

Pour clore la table ronde, le Président invite le professeur Gilbert à commenter ou à réagir aux nombreux points intéressants soulevés par les délégations au cours des débats.

Le professeur Gilbert observe que les délégations sont globalement en communauté de points de vue sur de nombreuses questions, ce qui mérite d'être souligné compte tenu de leurs différences en termes d'expérience et de contexte. Les débats ont selon lui mis en évidence un consensus exceptionnel à la fois sur le bien-fondé et sur les limitations des modèles analytiques et statistiques appliqués aux effets unilatéraux. Il est clairement ressorti des discussions qu'il ne s'agit pas d'un processus susceptible d'être automatisé : pour être efficace, un modèle doit s'appuyer sur une compréhension précise des caractéristiques d'un secteur et sur une juste appréciation des limites inhérentes aux données. Toutefois, les débats ont montré que l'utilisation de modèles en elle-même est productive : les modèles tendent en effet à mieux cibler l'analyse et à faciliter l'étude d'hypothèses diverses et la simulation des conséquences découlant de ces différentes hypothèses.

Le professeur Gilbert partage également l'avis d'un grand nombre de délégués selon lequel la mise en œuvre de ces modèles complexes et la communication de leurs résultats demeurent des domaines véritablement ouverts. Il est en effet difficile de communiquer les résultats d'une analyse d'équilibre particulièrement complexe, de même qu'il est n'est pas aisé de faire comprendre à un tribunal ce qu'est une analyse des effets unilatéraux et comment la situer par rapport aux méthodes d'analyse traditionnelles appliquées pour l'examen des fusions. Selon le professeur Gilbert, les débats ont aussi soulevé la question intéressante de la modélisation des gains d'efficience. Il estime que peu de progrès ont été accomplis en ce qui concerne la modélisation de l'origine des gains d'efficience. Les différents outils analytiques permettent d'examiner les conséquences des différents gains d'efficience et leurs implications sur les prix à l'issue de la fusion. Néanmoins, il n'est pas encore possible d'expliquer les raisons de ces gains d'efficience, la façon dont ils sont répercutés sur les consommateurs, leur origine ou leur portée à court ou long terme.

Le Président fait écho au professeur Gilbert sur le consensus exceptionnel obtenu dans ce domaine. Il souligne à quel point il est intéressant et passionnant d'observer comment l'utilisation de ces techniques

relativement nouvelles s'est généralisée. Les délégations reconnaissent que ces outils d'analyse sont prometteurs mais ils représentent également un véritable défi. Avant de clore la table ronde, le Président remercie le professeur Gilbert pour avoir partagé ses connaissances avec le Groupe de travail et l'ensemble des délégations pour leurs contributions écrites ainsi que pour leur participation à ce débat particulièrement enrichissant et instructif.