Final Report

Study for ICP-ANACOM

Methodologies for market definition and market analysis

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Management Summary

Scope of Study

The new EU regulatory framework requires that National Regulatory Authorities (“NRAs”) define relevant markets appropriate to national circumstances and carry out a market analysis to identify whether competition is effective or whether there are operators with Significant Market Power (“SMP”). This Study has the objective

- to provide methodologies and criteria for identifying relevant markets (susceptible to *ex ante* regulation) which are appropriate to national circumstances and
- to provide methodologies and criteria for market analysis (evaluation of individual or joint SMP.

Market Definition Procedure

The process of market definition is primarily an economic exercise, which is nevertheless echoed in the case law of the European Court of Justice and the administrative practice of the Commission. Relevant markets have two dimensions under EC competition rules, namely: the product dimension and the geographic dimension. Both product and geographic markets are delineated through an analysis of interchangeability of products from both demand and supply-side perspectives in terms of characteristics of the services concerned, their price and intended use. Limited interchangeability with other services results in the exclusion of those services from the market definition exercise, but should be taken into account at the later stage of calculating SMP. This does not mean that an analysis of the competitive impact of marginal customers is to be disregarded; indeed, it is the reaction of marginal customers to a shift in prices which should be the pivotal element of a market definition exercise.

The performance of the ***relevant product market*** definition exercise requires that the following methodological matters be taken into account:

- According to the ECJ, the ***functional level of trade*** is “*the level at which the objective conditions of competition are alike for all traders”.* Such a “level of trade” analysis enables wholesale (inputs to competition) and retail (services to end users) markets to be identified in the communications sector, which is characterised by complex, layered, value-chains. The distinction between wholesale and retail levels does not imply that these levels do not interact with one another, nor that they are not constrained by each other.
- ***Demand substitutability*** focuses on the obstacles that might prevent a customer from ***switching*** easily to another product or a supplier located elsewhere. Examples of such obstacles might include high investment costs,

long-term contracts and costly terminal equipment. An analysis of ***supply substitutability*** also needs to account for the obstacles which might prevent a supplier from switching production or other resources to the relevant products. The effectiveness and immediacy of suppliers' responses distinguishes between supply-side substitutability and potential competition, with the latter concept only being taken into account in the assessment of SMP (*i.e.,* through future entry).

- The usual short-term period of assessing market parameters under competition rules (*e.g.*, one year projection into the future), should be tempered by the acknowledgement in the *Market Analysis and SMP Guidelines* that the timeframe will inevitably depend on the characteristics of each market. **The temporal element** for *ex ante* purposes should, however, reflect the dynamism of technology-driven markets and the forward-looking nature of the market analysis process. A time period more than 18 months to two years might therefore be appropriate, particularly in light of the availability of ongoing periodic review of the market.

- It may be possible, in certain circumstances, to identify specific ***customer segmentations*** or sub-markets to which such products or services are targeted, particularly when such a group is subject to price discrimination (the practice of selling the same product or service to different customers groups at different prices, and being able to sustain such price differentials).

- ***Chain substitution***. This occurs where it can be demonstrated that, although products A and C are not directly substitutable, product B is substitutable for both product A and C and therefore products A and C may be in the same product market since their pricing might be constrained by the substitutability of product B (*i.e.*, where there is clear price interdependence at the ends of the chain and where the degree of substitutability along the chain is sufficiently strong).

A ***relevant geographic market*** comprises the area in which the undertakings concerned are involved in the supply and demand of the relevant products or services, in which area the conditions of competition are similar or sufficiently homogeneous and which can be distinguished from neighbouring areas in which the prevailing conditions of competition are appreciably different. The geographic scope of the relevant market in the fixed sector has traditionally been determined by reference to: (i) the geographic scope of the network concerned; and (ii) the presence of legal and regulatory obstacles.

Market Analysis Procedure

ANACOM is obliged under the new communications regulatory framework to determine whether a relevant market is effectively competitive prior to determining whether to impose, maintain, amend or withdraw obligations on undertakings considered to have

SMP. Recital 27 of the *Framework Directive* states that a relevant market will not be effectively competitive where there are one or more undertakings with SMP, while this Directive aligns the definition of SMP with the concept of dominance under EC competition rules. This concept includes individual dominance, collective dominance and leveraged dominance. The *Market Analysis and SMP Guidelines* defines market power in an *ex ante* analysis as being "*essentially measured by reference of the power of the undertaking concerned to raise prices by reducing output without incurring a significant loss of sales or revenues*" (at paragraph 72).

Several basic principles should be observed when conducting an analysis of market power for the purposes of the communications regulatory framework, including:

- while the concept of dominance is identical under various legal instruments, its application may differ under each of these instruments:
- the concepts of dominance and market power are evolving;
- an assessment of dominance involves an analysis of both structural and behavioural aspects of the market;
- a market analysis should be based on a rigorous economic analysis;
- a market analysis should be prospective in nature;
- ANACOM enjoys a degree of discretion in conducting its market analysis;
- de facto market leaders in innovative markets do not necessarily need to be regulated;
- a market analysis procedure carried out by ANACOM must take utmost account of the Market Analysis and SMP Guidelines;
- the Commission retains a veto over SMP designations; and
- SMP designators may be subject to an appeal procedure.

An assessment of whether a firm is individually dominant in a relevant market will focus in practice on an analysis of actual competition, including issues concerning market concentration, market shares, barriers to expansion, the hypothetical monopolist test, network effects, information symmetries, and behavioural aspects. In addition, ANACOM will examine potential competition, particularly barriers to entry, as well as the purchasing power of customers at the wholesale and retail levels. These aspects are examined in detail below by the Study Team.

The *Framework Directive* provides additional guidance on the manner in which collective dominance is to be assessed. The *SMP and Market Analysis Guidelines* effectively align the collective dominance test in Annex II of the *Framework Directive* with the collective dominance test used for purposes of the *Merger Regulation*, namely, whether the structure of the oligopolistic market alone is conducive to co-ordinated effects. The Study Team outlines the essential steps involved in an assessment of collective dominance, namely investigating the degree of market concentration, the incentive for co-ordination and the credibility of co-ordination. It examines the methodologies used under the *Framework Directive*, the *Merger Regulation* and Article 82 of the EC Treaty (concerning the abuse of a dominant position).

Finally, where an undertaking has SMP on a specific market, the *Framework Directive* enables it to be deemed to have SMP on a closely related market where the links between the two markets are such as to allow the market power held in one market to be leveraged into the other market, thereby strengthening the market power of the undertaking. The Study Team examines the principal jurisprudence on leveraging a dominant position, particularly the most recent judgments concerning Tetra Pak and Tetra Laval/Sidel.

1 Objectives and Background of the Study

1.1 Objectives of the Study

The new EU regulatory framework requires that National Regulatory Authorities ("NRAs") to define relevant markets appropriate to national circumstances and to carry out a market analysis to identify whether competition is effective or whether there are operators with Significant Market Power ("SMP"). This Study has the objective

- to provide methodologies and criteria for identifying relevant markets (susceptible to *ex ante* regulation) which are appropriate to national circumstances and
- to provide methodologies and criteria for market analysis (evaluation of individual or joint SMP.

The methodologies for market definition and analysis shall comply with general principles of Competition Law and with the *Recommendations* and *Guidelines* issued by the European Commission in this regard.

The study consists of two chapters. After explaining the objectives and the background of the study in the first chapter, the second chapter deals with the methodologies for market definition and analysis and highlights both legal and economic issues in this context. The pros and cons of the proposed methodologies will be referred to in the body of the study wherever appropriate. The methodologies for market definition and analysis are complementary and their application should result in an overall (and as comprehensive as possible) picture of the respective markets to be defined and analysed.

1.2 The new EU regulatory framework

To date, the sector-specific ONP rules for the communications sector have neither required nor reflected an in-depth market analysis; they have been confined to the regulation of individual services or access relationships. Regulatory measures have been driven by the perceived need to provide a surrogate for effective competition, by ensuring the availability of key competitive inputs, and by subjecting historical monopolists to pricing regulation, intended to force them to seek efficiencies, based on cost orientation measures directed at both the wholesale and the retail levels.

In 1999, the European Commission ("the Commission") undertook a major review of regulation of the telecommunications sector in the European Union. This review resulted in the adoption in March 2002 of a new regulatory framework for electronic communications networks and services, comprising of Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services,[1] ("the *Framework Directive*") and four other Directives (collectively referred to as "the *Specific Directives*"), namely:

- Directive 2002/20/EC of the European Parliament and of the Council on the authorisation of electronic communications networks and services,[2] ("the *Authorisation Directive*");

- Directive 2002/19/EC of the European Parliament and of the Council on access to, and interconnection of, electronic communications networks and services,[3] ("the *Access Directive*");

- Directive 2002/22/EC of the European Parliament and of the Council on universal service and users' rights relating to electronic communications networks and services,[4] ("the *Universal Service Directive*"); and

- Directive 2002/58/EC of the European Parliament and of the Council concerning the processing of personal data and the protection of privacy in the electronic communications sector,[5] ("the *Telecoms Data Protection Directive*").

The *Framework Directive* and the *Specific Directives* entered into force on 24 April 2002 and must be implemented by EU Member States into national law to take effect on 25 July 2003.

The *Framework Directive* requires NRAs to define relevant markets appropriate to national circumstances, in particular the relevant geographic markets within their national territory. The NRAs are also obliged to conduct their market definition procedures taking utmost account of the Commission's Recommendation on relevant product and service markets ("the *Relevant Markets Recommendation*") and the Commission Guidelines on market analysis and the assessment of significant market power under the Community Regulatory framework for electronic communications networks and services ("the *Market Analysis and SMP Guidelines*"). The Commission's *Relevant Markets Recommendation*, which identifies those product and service markets within the electronic communications sector, the characteristics of which may be such as to justify the imposition of regulatory obligations, was adopted by the Commission on 11 February 2003. Member States can only define markets that differ from those defined in the *Relevant Markets Recommendation* where they satisfy the criteria set forth in Articles 6 and 7 of the *Framework Directive.*

[1] OJ 2002 L 108/33
[2] OJ 2002 L 108/21
[3] OJ 2002 L 108/7
[4] OJ 2002 L 108/51
[5] OJ 2002 L 201/37

The purpose of the market definition procedure is to identify in a systematic way the competitive constraints that the undertakings involved face, thereby facilitating the subsequent market analysis procedure. To this end, the market definition exercise requires a rigorous economic assessment and must be carried out in accordance with the principles of competition law. According to competition rules, a relevant product market comprises all those products and/or services that are regarded as interchangeable or substitutable by the user, by reason of the products' characteristics, prices and intended use(s). A relevant geographic market comprises the area in which the undertakings concerned are involved in the supply and demand of products and/or services, in which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different to those areas.

In addition to the traditional principles used for the purposes of market definition under EC competition rules, the Commission's explanatory memorandum on the *Relevant Markets Recommendation* identifies three cumulative criteria that must first be satisfied prior to defining relevant markets under the new communications regulatory framework, namely whether or not:

- high and non-transitory barriers to entry exist;
- a market has the characteristics such that it will tend over time towards effective competition; and
- remedies under competition law are in themselves sufficient to address the market failures identified.

The *Framework Directive* requires that the market analysis procedure under Article 16 be carried out as soon as possible after the adoption, or subsequent revision, of the *Relevant Markets Recommendation* by the Commission. According to this procedure, ICP-ANACOM is required to conduct an analysis of the effective competitiveness of the relevant markets it has identified as a result of its market definition procedure, taking utmost account of the *Market Analysis and SMP Guidelines*. Where it concludes that a relevant market is not effectively competitive (*i.e.*, where there are one or more undertakings with significant market power ("SMP"), which in turn is aligned with the concept of dominance under EC competition law), the *Framework Directive* provides that it must identify the undertakings with SMP on that market and impose on such undertakings appropriate specific regulatory obligations or maintain or amend such obligations where they already exist.[6] Alternatively, where it concludes that the relevant market is effectively competitive, the *Framework Directive* obliges ICP-ANACOM not to impose any new regulatory obligations on any undertaking in that relevant market under Article 16 of the *Framework Directive*. If ICP-ANACOM has previously imposed sector-

[6] Article 16.

specific regulatory obligations on undertakings in that relevant market, it must withdraw such obligations and may not impose new obligations on that undertaking(s).[7]

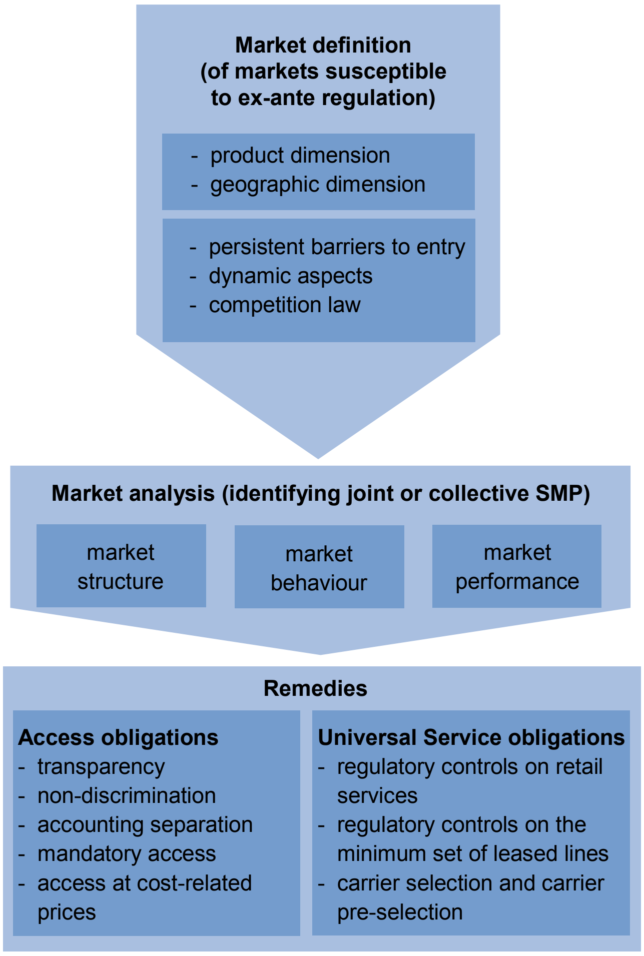
Finally, the Commission has the right, after consulting with the Communications Committee, to require ICP-ANACOM to withdraw a draft measure where it concerns the definition of a relevant market that differs from those identified in the *Relevant Markets Recommendation* or the designation or not of an SMP undertaking and where such a decision would affect trade between Member States and would create a barrier to the single market or raises serious doubts as to its compatibility with Community law, particularly the policy objectives of Article 8 of the *Framework Directive*.[8] Thus, the Commission does not have a veto right over the remedies proposed by ICP-ANACOM, though it is obliged to ensure that they are imposed in accordance with the communications regulatory framework.

Figure 1 provides an overview of the steps linked with the market definition and market analysis processes according to the New Regulatory Framework.

[7] Article 16 of the *Framework Directive.*

[8] Article 7 of the *Framework Directive*.

Figure 1: Market definition and analysis procedure under the New Regulatory Framework


Market definition
(of markets susceptible to ex-ante regulation)
- product dimension
- geographic dimension
- persistent barriers to entry
- dynamic aspects
- competition law
Market analysis (identifying joint or collective SMP)
market structure
market behaviour
market performance
Remedies
Access obligations
- transparency
- non-discrimination
- accounting separation
- mandatory access
- access at cost-related prices
Universal Service obligations
- regulatory controls on retail services
- regulatory controls on the minimum set of leased lines
- carrier selection and carrier pre-selection

1.3 Previous policy and approach of ICP-ANACOM

Until the adoption of the new regulatory framework there was no obligation of the regulator (ICP-ANACOM) to make explicit and identify a relevant market consistent with existing jurisprudence in competition policy. In some particular cases, hearings including market operators took place which were relevant to market definition issues for the appraisal of significant market power (*e.g.*, leased lines).

However, we can identify in a number of decisions of the regulator an underlying practice in terms of defining relevant markets. Such practice has had the following basic features:

- use of supply-side substitution as the main driver for definition of the product market;
- use of geographical coverage by a network as the driver for definition of the relevant geographic market.

The use of demand-side substitution (emphasized by competition policy practice and guidelines), consideration of entry barriers and the growth of the market have not been relied upon insofar as is apparent from published decisions, as important factors in ICP-ANACOM's analysis, and in many cases have been completely absent from its analysis. This was a consequence, in our view, of the objectives and nature of regulatory activity in the recent past.

An example the assessment of undertakings with significant market power is a case in point. The mains focus in such cases has been on market shares, usually defined on the basis of operators' revenues (see nº 2 of Art. 3, Law-Decree 474/99). Although other criteria are also presented to supplement market share data, it is not clear they have been taken into consideration to any meaningful extent.[9]

In the case of leased lines, in the consultation with market operators, ICP-ANACOM appears to have taken into account a broader cross-section of the market by reviewing input from other operators. This was not part of deliberate policy to include demand-side substitution as a core part in the definition of the relevant market and subsequent finding of significant market power.

The practice which has been followed by ANACOM, in line with the existing objectives under ONP legislation, has resulted in relevant market definitions that are wider in scope than the ones emerging in the new regulatory framework. Over time, one can also witness a move towards the approach outlined in guidelines issued by the European Commission in relation to the assessment of significant market power.

[9] See nº 4 of Art 3, Law-Decree 474/99. These other criteria are: "a) ability to influence market conditions; b) turnover relative to market size, c) control of access to final consumers; d) access to financial resources; e) experience in offering products and services in the marketplace."

2 Methodology for market definition and market analysis

2.1 Methodology for market definition

Market definition is the first step in the analysis of markets and effective competition under the EU's new regulatory framework for electronic communications networks and services. In practice, however, the process of defining the relevant market cannot be viewed in isolation. Indeed, the impetus of a market definition exercise is to enable an effective competition assessment to be undertaken. In addition, the closer a market definition exercise gets to identifying an enduring bottleneck or non-contestable structural characteristic of a marketplace, the greater the difficulties encountered in differentiating market definition and SMP analysis.

In many cases involving the communications sector, market definition will not be especially difficult or controversial. In some cases, however, the task will be more difficult, either because of the nature of the markets and products involved, or because of idiosyncrasies that exist in a particular Member State.

2.1.1 Economic and Legal Criteria for Relevant Market Definition

The process of market definition is primarily an economic exercise, set within the precedent and administrative practice developed in the application of competition rules. Relevant markets have two dimensions under EC competition rules, namely: the *product dimension*; and the *geographic dimension*.

Both product and geographic markets are delineated through an analysis of products from both demand and supply side perspectives in terms of the characteristics of the service(s) concerned, their price and intended use. Limited substitutability with other services results in the exclusion of those services from the market definition, but should be taken into account when considering whether the relevant market is effectively competitive. However, this does not mean that an analysis of the impact on marginal customers is to be disregarded; it is the reaction of marginal customers to a shift in prices which should be the pivotal element of a market definition exercise.

Regardless of the identity of the candidate markets put forward in the *Relevant Market Recommendation* and those listed in annex form to the *Framework Directive*, ICP-ANACOM is obliged to conduct a full market analysis as a precondition to any decision to adopt regulatory measures under the new EU regulatory framework. This might, in a number of circumstances, result in markets being defined in different ways across the EU Member States so as to reflect the different national conditions of supply and demand which are brought about by demographic and geographic factors, minimum cost efficient scales of operation, national 'cultural' purchasing preferences, the impact of historical regulation, and so forth. In each case, the identification of the relevant product market requires consideration of the following factors.

2.1.2 Criteria for defining relevant product markets

2.1.2.1 Demand-side Substitutability

The Commission generally attaches the greatest significance to demand-side substitutability, in its market definition exercises on the basis that it represents the most immediate and effective disciplinary force on the suppliers of a product or service. Under the jurisprudence of the European Court of Justice and the administrative practice of the Commission, demand-side substitution is considered to be the most immediate and effective disciplinary force on suppliers of a given product or service. In particular, demand-side substitutability seeks to identify the range of products which may be viewed as reasonable substitutes for one another by the users of those products. The Commission's Form A/B and Form CO define the relevant product market in terms of:

> *"[A]ll those products and/or services which are regarded as interchangeable or substitutable by the consumers, by reason of the products' characteristics, their price, or their intended use".*[10]

The European Court of Justice has defined the concept of substitutability, stating in *Hoffman-La Roche*, that:

> *"[T]he concept of the relevant market in fact implies that there can be effective competition between the products which forms part of it and this presupposes that there is a sufficient degree of interchangeability between all the products forming part of the same market insofar as a specific use of such products is concerned" (emphasis added).*[11]

The Court expanded on the meaning of the term "a sufficient degree of interchangeability" in *L'Oreal v. DeNieuwe AMCK*, where it stated that:

> *"[T]he possibilities of competition must be judged in the context of the market comprising the totality of the products which, with respect to their characteristics, are particularly suitable for satisfying constant needs and are only to a limited extent interchangeable with other products" (emphasis added).*[12]

[10] This reflects the case-law of the Court in, for example, Case 27/76, United Brands v. E.C. Commission, [1978] ECR 3461 and Case No COMP/M.53, *Aerospatiale-Alenia/de Havilland*, OJ 1991 L334/42.

[11] Case 85/76, *Hoffmann-La Roche & Co. AG* v. E.C. *Commission*, [1979] ECR 461.

[12] Case 31/80, *L'Oreal v. DeNieuwe AMCK*, [1980] ECR 3775.

Accordingly, the relevant product market should exclude those products which are only interchangeable with other products to a limited extent. Economists might argue that such an approach risks neglecting the competitive impact of marginal customers, whose behaviour/response should be the first object of the market definition exercise.[13] Such concerns were considered by the Court in Ahmed Saeed, where the Court related the concept of interchangeability to the degree of competition that the products might encounter.

> *"[T]he test to be employed is whether the scheduled flight on a particular route can be distinguished from the possible alternatives by virtue of specific characteristics as a result of which it is not interchangeable with those alternatives and is affected only to an insignificant degree by competition with them" (emphasis added).*[14]

To assess demand-side substitutability, the Commission encourages the use of evidence of consumer behaviour, historical price fluctuations in potentially competing products, price movements and relevant tariff information. In addition to price elements, the Commission suggests that other factors be taken into account, such as considerable switching costs which may hinder consumers from substituting a product or service for another. In the communications sector, these costs might be represented by important investments in technology, prohibitively high costs of switching terminals or long-term contracts.[15]

Finally, it is important to bear in mind that some services in the communications sector are provided as bundles or clusters. Many such bundles represent such a significant saving in terms of, for example, cost and time, that users' purchasing behaviour relates to bundles of services, not individual services. In other words, users recognise the advantages of aggregating the consumption of a number of services into one package and the significant disadvantages in purchasing unbundled services. This behaviour might give rise to "cluster markets", especially where competitors match these bundled offerings. The key issue for market definition purposes is whether such aggregated or bundled services constitute relevant product markets, or whether specific elements of the several package are subject to their own patterns of supply and demand.

These legal standards are applied by the Commission alongside the economic "Hypothetical Monopolist Test" (discussed in section 2.1.2.10, below). This test requires an analysis of whether consumers of a particular product or service would be likely to switch to readily available substitutes in the short term and at a negligible cost in response to a hypothetical small (in the range of 5 to 10%) but permanent relative price increase (from the competitive price) in the products under consideration.

[13] See, for example, economists' critiques of such Commission Decisions and Court judgments as in Case 322/81, *Michelin* v. E.C. *Commission*, [1993] ECR 3461 and *Hoffmann-La Roche*, op.cit. These views are discussed in greater detail below.

[14] Case 66/86, *Ahmed Saeed Flugreisen* v. *Zentrale zur Bekämpfung unlauteren Wettbewerbs*, [1989] ECR 803.

[15] See the Relevant Market Notice [97/C372/03], para.41.

2.1.2.2 Supply-side Substitutability

The Commission has historically given limited weight to the competitive constraints arising from supply-side substitutability. This has led to the definition of very narrow product markets. Supply-side substitutability arises when suppliers are able to switch production or other resources to the relevant products and market in the short term without incurring significant additional costs or risks in response to a small but permanent increase in the relative price of a product. In particular, supply-side substitutability is seen as an important element for market definition "in those situations in which its effects are equivalent to those of demand substitution in terms of effectiveness and immediacy".[16]

On the other hand, supply-side substitutability would not be taken into account for the definition of a relevant market where it would "*entail the need to adjust significantly existing tangible and intangible assets, additional investments, strategic decisions or time delays*…".[17] According to the Commission, supply-side substitutability must be assessed in light of elements such as the overall costs of switching production to the product in question as well as any legal, statutory or other regulatory requirements which could defeat a time-efficient entry into the relevant market. In the communications sector, such barriers could be represented, for example, by delays and obstacles in concluding agreements for collocation, interconnection or access, or rights of way.[18]

The Commission's lack of enthusiasm for a supply-side substitutability analysis in its market definition exercise results in narrower market definitions in many cases. While this should be of limited concern, if the supply-side competitive constraints are taken into account when assessing effective competition, there is a risk that over-reliance on market shares, calculated by reference to artificially narrow markets, may distort the application of *ex ante* regulation. Accordingly, supply-side substitutability should form part of the market definition analysis from the outset, where possible. Having regard to supply-side substitutability in the market definition procedure ensures that this procedure has regard to the principle of technology neutrality, *i.e.,* that regulation neither imposes nor discriminates in favour of the use of a particular type of technology.

2.1.2.3 Chain Substitution

Chain substitutability has been recognised by the Commission as another element for assessing a relevant market. Chain substitutability "occurs where it can be demonstrated that although products A and C are not directly substitutable, product B is a substitute for both product A and product C and therefore products A and C may be in

[16] See the Relevant Market Notice, para.20.
[17] See the Relevant Market Notice, para.23.
[18] [cite].

the same product market since their pricing might be constrained by the substitutability of product B".[19] The Commission has recommended, however, that the chain substitutability test be used only where there is a clear price interdependence at the extremes of the chain and the degree of substitutability is sufficiently strong.

2.1.2.4 The Functional Level of Trade

The functional level at which products and services are traded is an important element to be taken into account in a market definition exercise.

According to the European Court of Justice in *Michelin*,[20] the functional level of trade is "*the level at which the objective conditions of competition are alike for traders*". In this case, the Commission examined the relevant market for replacement tyres for trucks, buses and similar vehicles at the level of the retailer on the open market in proceedings under Article 82 EC. NBIM, the tyre manufacturer, argued that several sub-markets should be distinguished within the truck and bus category. The Commission rejected that proposition, pointing out that the relationship to be considered was not the relationship between NBIM and the final consumer. Rather, it was the relationship between the manufacturer and dealers which was of importance in assessing the effects on competition on the relevant tyre market. Specific tyre types and sizes were of no importance to an analysis of the possibility of obtaining substitute products at the dealer level or in the relationship between NBIM and dealers.

The Commission adopted similar reasoning in *Schöller-Langnese Icecream,*[21] where it stated that the relevant market must be viewed not just from the perspective of the consumer but also from the level of manufacturer, distributor and retailer. The Commission outlined how it was necessary in this case to subdivide the market reflecting the different competitive conditions existing at the various stages of distribution. Supply agreements concluded between the manufacturer and retailers were directed at competition between manufacturers and/or wholesalers for access to the retail trade.

The reasoning in *Michelin* and *Schöller-Langnese Icecream* is clearly highly relevant to the communications industry, which is characterised by several layers. Many operators and service providers seek to build a presence on each of these layers, while others concentrate their activities on one or more (but not all) of the levels. Accordingly, many participants require access to several upstream and/or downstream layers in order to provide services. For example, alternative fixed operators may require access to the fixed incumbent's local loops in order to provide their retail services.

[19] [cite].

[20] Case No IV/29.491–*Bandengroothandel Freischebrug BV/NV Nederlandsche Banden-Industrie Michelin*, OJ 1981 L353/33; on appeal Case 322/81, *Nederlandse Banden-Industrie Michelin NV* v. *Commission*, op.cit.

[21] Case Nos IV/31.533 and IV/34.072 – *Schöller Lebensmittel GmbH & Co.KG*, OJ 1993 L183/1.

As a result, the Commission has, in its *Access Notice* and elsewhere distinguished between a market for the provision of communications services to end users (*i.e.*, the retail market) and an upstream market for the provision of access to facilities necessary to provide such communications services (*i.e.*, a wholesale market). The distinction between wholesale and retail services is at the very core of the ONP framework. Against this background, it is hardly surprising that the new regulatory framework also makes the “wholesale-retail” distinction in the market definition or market analysis processes.

While it is critical to distinguish between wholesale and retail markets on the basis of the functional level at which products and services are traded, it is also important to take into account the possibility that these markets might interact so as to competitively constrain each other, *i.e.*, they might be “associated” with each other. For example, there may be instances where a competitive retail environment prompts price sensitivity which has an effect on upstream wholesale inputs. Thus, for example, there is an issue in the mobile sector as to whether the competitive dynamics of the retail market constrain behaviour at the wholesale level, particularly in relation to mobile termination charges.

2.1.2.5 Customer Segmentation

Communications services are consumed to varying degrees across the entire spectrum of society. Consequently, it is often common to see references to “residential users”, “business users”, “pre-pay customers” and “contract customers”. These terms need not, however, necessarily result in the conclusion that there are separate relevant product markets. For that to be the case, it must be possible to price discriminate between the ”segments”.

For example, the *Relevant Market Notice* provides that:

> *"[T]he extent of the product market might be narrowed in the presence of distinct groups of customers. A distinct group of customers for the relevant product may constitute a narrower, distinct market when such a group could be subject to price discrimination".*

It will usually be possible to price discriminate when two conditions are met. *First*, it is possible to identify clearly to which group an individual customer belongs at the time of sale. *Second*, trade among customers or arbitrage by third parties should not be feasible.

A review of Commission administrative practice indicates that the Commission will determine the ability to clearly identify specific groups of customers on the basis of a variety of factors, including the specific characteristics and preferences of the customer group itself, the circumstances (place) of the sale and/or the trade channels used.

For example, the criteria set out in the *Relevant Market Notice* were applied by the Commission in the *Coca-Cola/Amalgamated Beverages GB* Decision,[22] where the Commission segmented the market for colas according to sales channels, namely: (i) grocery or large multiple food retailers serving the take-home sector; (ii) impulse independent grocers, newsagents, convenience stores, garage forecourts, independent or multiple owned off-licences primarily serving the impulse/immediate consumption/ convenience market; and (iii) on-premises (pubs, hotels, restaurants, night clubs, workplaces, schools, health centres, hospitals) providing soft drinks for consumption on location. The Commission took into consideration the following factors:

- In the multiple grocery sector, the terms and conditions negotiated with retailers for supply are not likely to be influenced by the possibility of arbitrage from products distributed otherwise.

- The impulse sector is characterised by reduced price sensitivity. The main driver of sales is the availability of the product and cold storage facilities. The Commission noted that *"the fact that consumers are purchasing at specific, well identified selling points would … make it possible to apply different pricing policies in the impulse and multiple grocery channels with pricing being subject to a different set of constraints … allowing price discrimination in the absence of any possibility of effective arbitrage"*.

[22] Case No COMP/M.794 - *Coca-Cola/Amalgamated Beverages GB*, OJ 1997 L218/15.

- Customers selling on-premises can be readily identified and a different pricing policy followed, to a certain extent. In particular, the selling of colas in larger, bulkier packages and the supply of dispensing equipment would allow products to be priced differently as compared to other channels.[23]

In *Price Waterhouse/Coopers & Lybrand,*[24] the Commission identified a narrow market for the provision of audit and accounting services to quoted and large companies, whether national or multinational, predominantly by the "Big Six" firms. The reasons relied on by the Commission in distinguishing this customer group included: the need of such companies to have their audit and accounting services provided by a firm with the necessary reputation in the financial markets, the geographic scope to cover these companies' needs worldwide; the depth of expertise, and significant resources. The Commission noted *"the relatively low degree of importance of price as a factor in determining the client's decision with regard to either choosing or retaining its auditor".*[25]

Reliance on price discrimination factors to identify narrower product markets sometimes interacts with other product characteristics. For example, in *Orkla/Volvo,* the Commission, having noted that the net prices for beer were generally lower for the hotel and catering industry than for the retail trade, observed that the ultimate customer in the hotel and catering industry was purchasing "*a product that differs from the retail industry in so far as the customer is buying a degree of services and atmosphere not present in the retail industry where the beer is consumed at home.*" It noted that it was unlikely that the hotel and catering industry would purchase bottled beers from retail outlets for sale in bars *etc.*, as it would be impractical to handle and transport the bottled volumes required between the two types of sales outlets, excluding the possibility of arbitrage.

In the communications sector, the Commission has identified specific customer groups that constitute specific relevant markets, such as in *BT/AT&T,* where the Commission defined a relevant market for the provision of global telecoms services to multinational corporate users (MNCs).[26] However, the possibility of price discrimination does not seem to have been the determining factor in identifying such a market. Rather, it was

[23] In Case Nos IV/34.073, IV/34.395 and IV/35.436 - *Van den Bergh Foods Limited*, OJ 1998 L246/1, the Commission examined whether the market for impulse ice cream should be narrowed, notably by separating the non-retail channels, such as schools, company canteens, sports and leisure venues, where often the products are not being sold to the general public but rather to a captive pool of consumers. The Commission also noted that in such venues price levels can also vary. It did not find it necessary, however, to determine whether it was necessary to identify such venues as a separate relevant market due to the relative insignificant sales. See also Case No COMP/M.938 – *Guinness/Grand Metropolitan*, OJ 1998 L288/24.

[24] Case No COMP/M.1016 – *Price Waterhouse/Coopers & Lybrand*, OJ 1999 L50/27.

[25] In Case No COMP/M.1307 – *Marsh & McLennan/Sedgwick*, 23 October 1998, para. 36, third parties had argued that the market for commercial brokers should be further segmented by client size, which was disputed by the parties, who considered, inter alia, that the skills needed to meet the developing needs of a client did not change fundamentally as a function of client size. Although the Commission found that there was some evidence that large corporations could constitute a separate market, it left the question open.

[26] Case No IV/JV.15 – *BT/AT&T*, 30 March 1999.

the fact that MNCs require the provision of specific services, namely "*packages of customized enhanced and value-added global corporate telecommunications services*". Similarly, the definition of a market for seamless pan-European services to international mobile customers, in particular corporate customers, in *Vodafone AirTouch/ Mannesmann*,[27] was motivated by specific demand-side concerns of corporate customers rather than by the possibility of price discrimination.

It has also been observed that customers may be segmented as *residential* and *business* customers. In fact, while residential customers generally require uniform coverage irrespective of their location, business users are more likely to have specific needs in particular geographic areas. For example, a pan-European bank is likely to require high speed dedicated communications services between the main capitals of Europe.[28] Several Commission decisions confirm this view. In *BT/MCI(II)*,[29] the geographic market was identified by reference to the needs of large multinationals. In fact, it was noted that the category of business users might be further divided into two sub-categories of large corporate groups in light of the service required: *i.e.,* such as multinationals, and small and medium enterprises (SMEs).

2.1.2.6 Gateways and Bottlenecks

Communications networks are increasingly providing a broader range of services beyond traditional telecommunications services. As customers seek access to content, rather than to other subscribers, the role of parties providing access to that content tends to display certain characteristics of "gateways" or "bottlenecks" to content, particularly when this access is channelled through a physical gateway (*e.g.*, a Conditional Access System) or a virtual gateway (*e.g.*, a portal to a walled garden of Internet-based content, which can be operated by either a communications network operator or a service provider). The key question which arises is whether such gateways constitute or form part of a particular product market, or whether they are a particular manifestation of market power, largely depending on their relationship to content (*e.g.*, extent of vertical integration) and the customer (*e.g.*, extent of their capture). It is arguable that certain types of gateways might even be "essential facilities".[30]

In the context of Conditional Access Systems, Article 6(2) and Part 1 of Annex I of the *Access Directive* imposes a "fair, reasonable and non-discriminatory" access obligation on all providers of such systems, with some flexibility regarding the scope of the access obligations that may be imposed.

[27] Case No COMP/M.1795 - *Vodafone Airtouch/Mannesmann*, 12 April 2000.

[28] See Larouche, P. (2000), "Competition law and Regulation in European Telecommunications". Oxford and Portland Oregon.

[29] Case No COMP/M.856 – *British Telecom/MCI (II)*, OJ 1997,L336/1.

[30] See Case C-7/97, Oscar Bronner v. Mediaprint Zeitungs und Zeitschriftenverlag, [1998] ECR I–7791.

A most recent illustration of the interface between market power and market definition issues is found in the treatment of portals under competition rules. Most of the competitive assessments of portals to date have involved portals which are accessed over closed networks. In a series of early cases, the Commission took the view that portals were gateway or intermediation services, and were not "markets" in themselves.[31] It subsequently revised that view, stating that it had identified distinct patterns of demand for portals (further differentiating between mass-market "horizontal" portals and more specialised "vertical" portals), which warranted the identification of distinct markets for horizontal and vertical portals.[32] The Commission has stated that it considers that competition between such portals is based on their attractiveness and functionality (*e.g.,* context, content, commerce, communication, connectivity and community).

The Commission has, in a number of cases, characterised portals as a combination of access and content services. The Commission has also described a horizontal portal as aggregating a large number of recurring Internet users and/or subscribers around specific types of services.[33] It has shown particular concern in relation to the ability of platform operators providing Internet access (especially where access to the platform itself is not "open" to competing Internet access providers – *e.g.,* cable networks and mobile networks with SIM- or WAP-locking) to leverage their position in relation to access to the platform into a portal market. However, it is interesting to note that "portals markets" have not been identified in subsequent cases which did not involve platform operators (*e.g., AOL/TimeWarner*).

2.1.2.7 The Temporal Element

The usual short-term period of assessing market parameters under competition rules (*e.g.*, one year) should be tempered by the acknowledgement in the *SMP Guidelines* that the timeframe will inevitably depend on the specific characteristics of each market and the expected timing for the next review of the relevant market by the NRA. The temporal element for *ex ante* purposes should reflect, however, the dynamism of technology-driven markets and the forward-looking nature of the market analysis process. A time period of 18 months to two years might therefore be appropriate, particularly in light of the availability of ongoing periodic review of the market.

[31] See Case No COMP/M.1439 - *Telia/Telenor*, OJ 2001 L40/1; Case No IV/JV.5 - *Cegetel/Canal+/AOL/Bertelsmann*, 4 August 1998 and Case No IV/JV.11 - @Home Benelux – 15 September 1998.

[32] See Case No COMP/JV.48 - *Vodafone/Canal+/Vivendi*, 20 July 2000.

[33] Ibid.

2.1.2.8 The Effects of Regulation

The administrative practice of the Commission in its application of the competition rules to the communications sector has, by and large, not considered the effects of existing regulatory measures on market definition. Rather, the Commission has tended to focus on the impact of regulatory measures as regard to market power (more specifically, whether the existence of regulatory measures is sufficient to prevent the abuse of market power).[34] However, regulation can have a significant impact on market definition, as it may create or reinforce new or emerging markets (*e.g.*, through the introduction of mandated unbundling to local loops or indirect access obligations) or shape the dynamics of particular markets by lowering or raising barriers to entry (*e.g.,* number portability facilitates new entry but might have the indirect effect of masking the identity of networks, thereby making customers less price-sensitive; cost-orientation access might have the effect of dissuading potential new infrastructure investors from investing, when service providers can obtain entry without the sunk costs of network deployment).

Accordingly, it is important to be mindful of the impact of regulation on the structure and form of “markets”. It is also especially important to ensure, in defining markets, that any such effects created by regulation are taken into account, because a future regulatory environment which removes or changes regulation might, of itself, fundamentally change market dynamics.

2.1.2.9 Dynamic Aspects

Electronic communications markets, by nature, have a dynamic character such that their boundaries (either in terms of products or geography) may be altered in quite profound ways within a relative time horizon. Thus, even where high barriers to entry exist, other structural factors or market characteristics may mean that the market tends toward effective competition without the need for *ex ante* regulatory intervention.

For example, in markets with a limited, but sufficient, number of undertakings behind the entry barrier having diverging costs structures and facing price-elastic market demand, market shares may change over time and/or falling prices may be observed. Moreover, in innovation-driven markets characterised by ongoing technological progress, dynamic or longer-term competitive constraints often come from potential competitors that are not currently in the market.

[34] See *Telia/Telenor, Case* No. COMP/M.1439, OJ 2001, L40/1.

Consequently, the factors which should be taken into account when conducting a prospective analysis to identify the relevant markets for possible *ex ante* regulation include:

- changes in demand;
- changes in technology;
- changes in resources (and access to them);
- changes in regulations or laws;
- changes in income;
- expiry of intellectual property rights;
- changes in business strategies by firms in the market, or those outside it; and
- changes in macroeconomic factors, *e.g.,* exchange rates, interest rates, and other matters affecting access to capital.

All of these factors can lead to changes in supply and demand, and changes in the number of goods traded and the degree to which goods are complementary with each other, or are substitutes for each other. The above points reflect the fact that markets are constantly evolving elements of a dynamic system and effective competition may emerge in these markets without the need for *ex ante* regulatory intervention.

2.1.2.10 Hypothetical Monopolist Test

As noted above, the Commission relies heavily on the "Hypothetical Monopolist Test", otherwise commonly referred to as the "SSNIP" test (which refers to a small but significant non-transitory increase in price) in the market definition process. In essence, the test asks: could a firm that was the only present and future seller of the relevant products or services in the geographic area where competitive economic conditions are similar impose at least a "small but significant and non-transitory" increase in price?[35] In

[35] See U.S. Department of Justice and Federal Trade Commission, Horizontal Merger Guidelines (1992) (revised 1997); U.S. Department of Justice, Non-Horizontal, Merger Guidelines, ch. 4 (1984). The U.S. Merger Guidelines define a "market" as a product or group of products and a geographic area in which it is produced or sold such that a hypothetical profit-maximising firm, not subject to price regulation, that as the only present and future producer or seller of those products in that area likely would impose at least a "small but significant and non-transitory" increase in price, assuming the terms of sale of all other products are held constant. A relevant market is a group of products and a geographical area that is no bigger than necessary to satisfy this test. The Merger Guidelines first define the relevant product market with respect to each of the products of each of the merging firms. Starting with each product (narrowly defined) or each merging firm, the Justice Department and FTC continue to add the "next best substitute products" until reaching the point where a "hypothetical monopolist" could profitably impose the "small but significant and non-transitory" price increase

other words, starting from a competitive price, would it be profitable, over a period of about one year, to implement a hypothetical small (in the range of 5 to 10 %) increase in price? This will depend on the degree of consumer switching to other products (demand substitution) and additional supply (supply substitution).

The assumed hypothetical price increase is relevant only in the context of the economic exercise of assessing where market boundaries lie, rather than in the later process of appraisal of market power. In applying the test, care must be taken not to begin with either a geographic scope or group of reference products that is too broad. In principle, the reference point is the end user product or service that appears to be at the core of the market power or the abuse of dominance concern. In practice, starting the process with individual products is not always necessary, as there may be one (and perhaps several) unmistakably strong and effective substitutes for the product. Consequently, the test may need to be applied to a range of substitutable products.

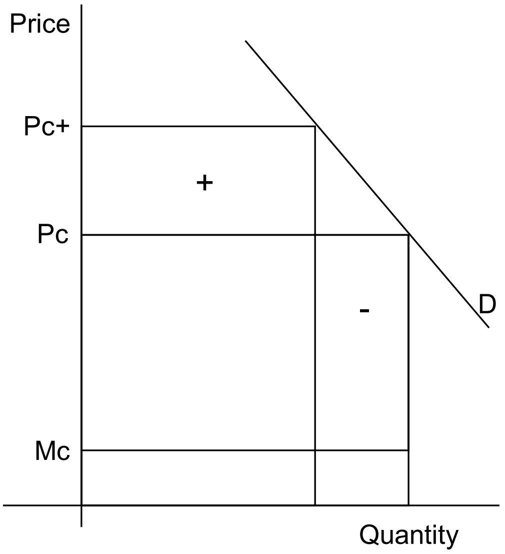
It is also important to bear in mind that the hypothetical monopolist test is concerned with the response of consumers at the margin and *not* the average or typical user. It is clear that there will always be consumers that would never switch from one product to another in response to a significant non-transitory price increase. However, these consumers are not the focus of the SSNIP test. The test examines whether there are enough marginal customers to make any attempt by a firm to increase prices for a product unprofitable, that is important for market definition purposes. This is an empirical matter, and one that cannot be addressed by simple factual analysis and assertions (which risk being arbitrary and capable of identifying very narrow markets).

The loss and profit resulting from a SSNIP are illustrated in Figure 2. Whether a price increase (above the competitive level) raises profit depends upon the balance between the extra profit per units still sold (+ in Figure 2) and the loss contribution on units no longer sold (- in Figure 2).

without consumers switching to additional substitute products. A five percent price increase over a period of one year is given as a fair benchmark for most purposes, although higher or lower levels may be used depending upon the industry. In considering the likely reaction of buyers to a price increase, the US authorities consider all relevant evidence, including, but not limited to, the following:

- evidence that buyers have shifted or have considered shifting purchases between products in response to relative changes in price or other competitive variables;
- evidence that sellers base business decisions on the prospect of buyer substitution between products in response to relative changes in price or other competitive variables;
- the influence of downstream competition faced by buyers in their output markets; and
- the timing and cost of switching products.

Figure 2: SSNIP test and critical loss



Pc = competitive price

Pc+ = competitive price + 10%

Mc = marginal cost

+ (extra profit per units still sold) **and**

- (lost contribution on units no longer sold)

2.1.2.11 Quantitative Thresholds and the Hypothetical Monopolist Test

In the EU, the small but significant and non-transitory price increase that is used as the benchmark for the hypothetical monopolist test is 5 to 10 percent, depending on the nature of the industry.[36] The period over which the test requires supply substitution to occur, is approximately one year. There are a number of compelling reasons why some economists take the view that these quantitative thresholds might be relaxed, in certain circumstances. Some of these are relatively specific, reflecting certain characteristics of particular industries, but there are other concerns that apply more generally.

Market definition is not a mechanistic process. It will, in principle, be specific to the facts of each case. To the extent that ICP-ANACOM must use its judgement in defining relevant markets, and where only quantitative thresholds serve as guidelines (and are adjusted when the circumstances demand it), it has a margin of discretion.

[36] In the United States, the Department of Justice uses a 5% level, but notes a series of conditions under which a larger or smaller hypothetical price increase would be applied. Arguably this improves predictability, and thus transparency. Unfortunately, these conditions do not constitute an exhaustive list. As with all regulatory decisions involving discretionary judgement, transparency is enhanced by the relevant authorities providing a complete analysis of their reasons for reaching a particular decision.

Limits to the "5 to 10 percent price rise" Test

Care should be taken not to be over-reliant on the Hypothetical Monopolist Test in defining markets. This is because the 5 to 10 percent profitable non-transitory price rise benchmark is prone to a margin of error, especially in complex markets where buyers are not homogeneous in the uses to which they put the good or service, and also where the widespread bundling of services that share costs takes place (thereby making pricing rather non-transparent).[37] In such situations, a hypothetical monopolist's most profitable price may be significantly greater or less than the price following a 5 to 10 percent increase, even though a 5 to 10 percent price rise may increase the monopolist's profit. For example, where some consumers have a substitute to which they can switch if there is a price rise by the hypothetical monopolist, but there are no suitable substitutes for the majority of customers, a small price increase can be unprofitable for a hypothetical monopolist, while a larger one may be profitable. This situation may occur where a proportion of customers are able to switch to alternatives, while another group of customers are effectively captive. Such a result tends to suggest that the monopolist may in fact be supplying to two separate economic markets, but an overly-simplistic application of the 5 to 10 percent price rise test would not reflect this.

The percentage price increase chosen can determine the size of the relevant product market. If the price rise used for the hypothetical monopolist test is 20 percent, a larger proportion of buyers are likely to switch to alternatives that they consider to be not very satisfactory substitutes (at a lower price), than would switch following a 5 percent price increase. Similarly, producers who can switch existing capacity to supply in competition are more likely to do so when the price rise is 20 percent, rather than 5 percent.

Uncertainty, coupled with transaction and information search costs, often results in buyers, be they intermediate producers or end users, not readily switching to alternatives when relatively small price rises occur. Accordingly, NRAs might be expecting too much of 'imperfectly' competitive markets by setting quantitative thresholds that are too low to elicit much consumer and/or producer reaction given that, even where there is relatively strong competition between substitutes, low quantitative thresholds might not highlight a number of quite adequate substitutes, or might not highlight the capacity of alternative suppliers that could fairly easily switch to supply to the relevant product market.

There are a great many factors that can influence prices. These include, most obviously, demand and supply conditions for the end product, of which there are a considerable number of drivers.[38] Because there are transaction and information search

[37] In such cases, legitimate pricing can vary between stand-alone and incremental cost. By definition, there are no cross-subsidies where prices fall in this range.

[38] These include: changes in taste; changes in technology; changes in resources; changes in regulations or laws; changes in income; patent expiry; changes in business strategies by firms in the market or those outside it; and changes in macroeconomic factors e.g., exchange rates and interest rates.

costs involved in buyers switching to other suppliers, in the absence of knowledge of the cause of price movements, buyers may not be able to respond to quite small price increases (even though suitable alternatives exist), and firms with suitable capacity are also less likely to enter to supply the relevant product market. These types of analyses become more complex where economic arrangements are conducted by reference to non-price elements, which make the hypothetical monopolist test difficult to apply (*e.g.*, peering agreements which amount to little more than barter relationships).

Therefore, even a full investigation may provide incomplete information. As such, regulators may be uncertain as to whether or not a hypothetical monopolist would be able to raise a price by a small amount for a non-transitory period. In such circumstances, errors may be made, *i.e.* markets may be incorrectly defined.

Arguably, quantitative thresholds for market definition should be partially determined by the range and severity of regulatory obligations that an NRA is committed to imposing on SMP- designated entities. For example, high quantitative thresholds might be appropriate if all firms with SMP were to be required to provide access to their facilities to competitors. In practice, many situations in which there is market power are not best addressed through the imposition of access obligations. Where less intrusive regulation applies, quantitative thresholds could be lower. The use of different quantitative thresholds is likely to result in the identification of different markets and, consequently, different market shares being attributed to the entities competing in those markets.

There are also a range of possible prices to which the hypothetical monopolist test could be applied. If the product in question is upstream from a retail market and part of a complex supply chain, the relevant price might be the price of the total product at the particular stage of that chain. It is important to note, however, that any firm that is a monopolist at any point in the vertical supply chain, would be looking to the demand conditions in the end user market as the source of its monopoly profits. Monopoly pricing in the wholesale market will be designed to impact on prices and quantities in the end user market. Where end users have heterogeneous uses for the product, there may be complex multi-part pricing. Where there are significant common costs involved in the production process and several prices or price structures in the end user market, determining the end user price on which to rely can be complex.

2.1.2.12 The Cellophane Fallacy

When assessing a hypothetical non-transitory price increase, care is needed to avoid the *Cellophane Fallacy*. The fallacy was adopted by US Supreme Court,[39] to consider market definition in a case involving cellophane. The Court considered that a significant

[39] *United States* v. *E.I. du Port de Nemours & Co.*, 351 U.S. 377 (1956).

price rise would bring cellophane into competition with other products, and concluded that other products served as sufficiently good substitutes to cellophane, so that cellophane could not be considered as being in a separate market. It was later noted, in the economic and legal literature, that the Court had erred in calculating the elasticity of substitution (the degree to which consumers would switch from cellophane to other products following a price rise), by doing so in relation to the then current prices, which were already far above the price that would prevail if the market was competitive.

Essentially, even where a product has no close substitutes, if the price is already high and a hypothetical price rise occurs, consumers would tend to switch to poorer substitutes more readily than they would if the price rise had occurred from a the price that would prevail if the market was already relatively competitive. It is a point well understood by economists that the cross price elasticity of demand (the sensitivity of buyers to switch purchases from *A* due to an increase in its price, to substitutes whose prices remain unchanged) gets greater as we move up the demand curve, *i.e.*, as the price of *A* gets higher. In short, in *Cellophane*, market dominance was already being exercised at prevailing prices. As such, a hypothetical additional price rise failed to define a market in which there was a serious market power problem.

The rule, since *Cellophane*, is that the hypothetical monopolist test should be carried out using a price that would prevail if the market were competitive. However, there are several quite serious methodological problems that result from rejecting existing prices (especially where, as often occurs in the communications sector, many prices have been shaped by regulatory intervention):

- actual market evidence regarding consumer and/or supplier behaviour following a shock, such as a price rise, is much less relevant where prevailing prices are not considered to be directly relevant in assessing cross price elasticities of substitution; indeed, the behaviour of actual prices can be an important, and indeed, one of the only sources of “hard” data which shows how prices have moved following market shocks; a rejection of existing prices means that such data is of much less relevance;
- consumers are aware of existing prices and are thus more able to respond to survey questions without being required to make too many mental adjustments to meet hypothetical conditions; and
- an investigation to determine a competitive price in multi-product industries with a high proportion of common or joint costs may not provide a single price at all.

2.1.3 Criteria for Defining Relevant Geographic Markets

Under competition rules, the relevant geographic market is "*the area in which the objective conditions of competition applying to service providers are similar, and competitors are able to offer their services*".[40]

In the communications sector, geographic market definition is often interdependent with the particular range of services. An examination of the "objective conditions of competition" highlights the fact that despite the geographic scope of particular services (*e.g.*, international calls, international roaming), the scope of the market in which they are provided might be very localised. Moreover, even to the extent that technology might be able to provide bypass or provide rerouting alternatives (*e.g.*, tromboning, call-back, least-cost routing), the existence of "significant switching costs in procuring supplies from companies located in other countries"[41] can constitute barriers which isolate a given geographic area from competitive pressure from entities located outside that area.

The Commission has often characterised the scope of the geographic market in the communications sector as being determined by:

- the extent and coverage of the network and the customers that can economically be reached and whose demands may be met; and
- the legal and regulatory system which governs the operations of competitors and their right to provide a service or services.[42]

The following characteristics have influenced the administrative practice of the Commission in regard to geographic market definition:

2.1.3.1 Regulatory Conditions

Regulatory conditions have been considered by the Commission to be important barriers which tend to isolate different geographic markets. In its *Access Notice*, the Commission underlined that "*regulatory conditions, such as the terms of licences, and any special or exclusive rights owned by competing local access providers are*

[40] See Commission's Notice on the application of the competition rules to access agreements in the telecommunications sector – framework, relevant markets and principles, OJ 1998 C265/2 (the "Access Notice"), at point 55.

[41] Relevant Market Notice, Commission Notice on the definition of relevant markets for the purposes of Community competition law, OJ C372/5.

[42] See, inter alia, Case No COMP/M.1536 – Wind/Enel STC, 29 June 1999.

particularly relevant".[43] This view was reaffirmed in *Olivetti/Mannesmann/Infostrada*,[44] *Cable & Wireless Communications*[45] and *MetroHoldings Limited*.[46]

However, in *Cégétel+4*, the Commission underlined that, although the legal and regulatory framework applicable to the provision of a service is one of the two key elements to be taken into account in geographic definition of communications markets, such constraints play a fundamental role only insofar as basic fixed telecoms services are concerned. Regulatory restrictions lose their impact in the case of customised packages of corporate telecoms services.[47]

Elements of regulation which may be relevant to geographic market definition include:

- Licensing Requirements: Numerous precedents confirm the importance of licensing regimes for market definition purposes. For example, in *Cable & Wireless Communications,*[48] the Commission considered that the market for cable TV networks was local, given that the regulatory framework provided for local franchises.[49] However, there are clear elements in the decisional practice of the Commission that challenge the relative importance of licensing constraints. Indeed, it is arguable that different licensing conditions should not, *per se*, be considered to be sufficient to identify different geographic markets.[50]

- Pricing Obligations. Price regulations and tariffs are recognised by the Commission as being capable of erecting important regulatory barriers. In fact, tariff obligations have been considered to be key drivers for the limitation of the geographic scope of communications markets to national boundaries.

- Service Requirements. As in the case of licensing requirements, different regulatory constraints concerning elements such as the scope, technical or quality requirements of service offerings can lead to a definition of different national geographic markets.

[43] See also Commission's Notice on the definition of the relevant market for the purposes of Community competition law, (the "Relevant Market Notice"), OJ 1997 C372/5, at point 50.

[44] Case No COMP/M.1025 - *Olivetti/Mannesmann/Infostrada*, 15 January 1998.

[45] Cases No COMP/M.853 and No COMP/M.865 - *Bell CableMedia/Cable & Wireless/Videotron* and *Cable & Wireless/Nynex/Bell Canada*, 11 December 1996.

[46] Article 19(3) Notice of 23 January 1999, *MetroHoldings Limite*d, OJ 1999 C19/18.

[47] Case No IV/36.592 - *Cégétel*+4, OJ 1999 L218/14.

[48] Bell *CableMedia/Cable & Wireless/Videotron* and *Cable & Wireless/Nynex/Bell Canada*, op.cit.

[49] See, inter alia, Case No COMP/M.1536 - *WIND/ENEL STC*, 29 June 1999; Case No COMP/36.581 - *Télécom Développement*, OJ 1999 L218/24; Case No COMP/M.975 – *Albacom/BT/ENI*, 13 November 1997.

[50] See European Commission DG XIII (1999) "Determination of Organisations with Significant Market Power (SMP) for Implementation of the ONP Directives", p. 11.

2.1.3.2 Price Discrimination

Pricing is also relevant in determining the scope of relevant geographic markets. For example, price was fundamental to the restriction of the market for mobile services to the national level in *Vodafone/Airtouch*. In its Decision, the Commission considered that the substantially higher costs of a call made or received while roaming (*i.e.*, in a visited network) constituted a considerable barrier to the definition of the geographic market at the supra-national level.[51]Similarly, in *Reuters/Equant-Project Proton*, although not taking a position on the geographic scope of the market, the Commission noted that "*while the provision of IP based extranet services certainly has strong international characteristics, the cost barriers or practical considerations might prevent a user in Europe from procuring extranet services from a provider in, e.g., the USA*".[52]

Accordingly, evidence on changes in prices and consequent reactions by customers might be conducive to identifying separate and distinct geographic markets. The Commission has, however, warned that international comparison of prices must also take into account additional factors such as exchange rate movements, taxation and product differentiation.[53]

In *Volvo/Scania*,[54] Volvo argued that the decisive factor for defining the relevant geographic market was whether suppliers actually price discriminated across markets. The Commission's examination of price discrimination evidence found that Volvo and the other suppliers of heavy trucks had applied significantly different prices for comparable products in different Member States. It considered that the mere fact that price lists differed significantly from country to country was indeed an indication that the conditions for competition differed and had the effect of making price comparisons more difficult for purchasers of heavy trucks. The Commission refused to conclude that variations within a 5 to 15% band between Member States were indicative of a Community-wide market. It found that the existence of price differences within a 5% band could not be disregarded for the purposes of market definition, as this would otherwise suggest that a hypothetical monopolist in one geographic area could impose a price increase in some cases as large as 10% without being restricted form doing do by conditions of competition in neighbouring areas.

The Commission used price discrimination factors to complement its assessment of the geographic scope of the market in the *Mannesmann/Vallourec/Ilva* Decision,[55] where the parties argued that correlations between prices charged in Western Europe and the United States were close to correlations between prices charged between the various

[51] Case No COMP/M.1430 - *Vodafone/Airtouch*, 21 May 1999. See also Case No COMP/M.1439 - *Telia/Telenor*, OJ 2001 L40/1.

[52] Case No COMP/M.1875 – *Reuters/Equant Project Proton*, 17 April 2000.

[53] See the Relevant Market Notice, at point 45.

[54] Case No COMP/M.1672 – *Volvo/Scania*, 15 March 2000, para. 35.

[55] Case No COMP/M.315 - *Mannesmann/Vallourec/Ilva*, OJ 1994 L102/15.

western European countries. The Commission concluded that this implied that producers were unable to price discriminate in different parts of the world. It noted that *"while the absence of price correlation between two geographical areas is a strong indicator of different geographical markets, the existence of price correlations does not necessarily indicate a single market in the absence of other elements such as mutual interpenetration and similar structures of supply and demand in the different areas."*

In *Nestlé/Perrier*,[56] Nestlé submitted that price discrimination between France and other areas, including at least Belgium and certain German Länder was not possible; the parties argued in particular that if excessive pricing were to be charged in France, parallel importation would develop. The Commission rejected the argument and found that parallel importation into France was practically impossible. The Commission's findings were based on the fact that: (i) bottled source water is a relatively inexpensive and bulky merchandise on which transport costs has a high impact; (ii) exports occur through subsidiaries of the main suppliers, allowing a certain degree of control over the water exported; (iii) prices in Belgium and Germany are significantly higher than in France, in addition to the additional costs related to transport and, repackaging that the exporter would incur, even before its profit margin.

2.1.3.3 Functionality

The intrinsic functional characteristics of certain services (aside from their relevance to the identification of relevant product markets) can also inherently render the scope of the relevant geographic market national. For example, in *Viag-Interkom/Telenor Media*,[57] the relevant market was identified as the market for the provision of national directory assistance services in Germany that were invoiced to the customer through its telephone bill. The geographic dimension of the market was national in scope, given that it was "*technically impossible to use the [concerned]… telephone numbers from abroad, as there is no mechanism to invoice customers calling from abroad.*"

2.1.3.4 Ancillary Features

Limits on the functionality of services beyond national boundaries, when supplemented by other 'intangible' elements, such as display features, may further increase switching costs for customers and reinforce the existence of national markets. For example:

Language Availability. According to the *Relevant Market Notice*, basic demand characteristics, such as national preferences, language, culture and lifestyle have a strong potential to limit the geographic scope of competition. Language has been

[56] Case No COMP/M.190 – *Nestlé/Perrier*, OJ 1992 L356/1.

[57] Case No COMP/M.1957 – *Viag/Interkom/Telenor Media*, 14 June 2000.

particularly important, for example, in determining geographic markets in the broadcasting sector. In *Bertelsmann/Kirch/Première*,[58] the Commission found that the German-speaking area of Europe was the relevant geographic market for the provision of technical services for Pay-TV. In *RTL/Veronica/Endemol*, the Commission considered that, although Flanders and The Netherlands are both Dutch-speaking, the "differences in the *verbal expressions*" (emphasis added), together with other factors, resulted in the two regions being considered to be separate geographic markets. [59]

Availability of After-sales Service. The national scope of telecoms markets has been influenced, on occasions, by marketing distribution channels. For example, in *British Telecom/MCI (II)*,[60] the market for audio conferencing was considered to be national in scope, given that it requires a dedicated sales force in the country where the service is supplied. After-sales, help-desk and similar customer assistance services can also play an important role in configuring national markets.

2.1.3.5 Commercial Practices Favouring Supranational Markets

In 1991, the Commission considered that the national territory of each Member State "seems to be a distinct geographic market", where (i) the customer's needs cannot be satisfied by using a non-domestic service; (ii) there are different regulatory access conditions; and (iii) there are no Community-wide standards concerning equipment and networks.[61] However, the Commission underlined the fact that *"it is expected that the geographic market will progressively extend to the EEC territory at the pace of progressive realization of a single EEC market"*. In a number of decisions, the Commission has taken the view that the relevant geographic market extends beyond the boundaries of the national borders of a Member State. The key drivers behind this trend are identified below:

Scope of Customers' Businesses. In various decisions, the Commission has recognised that the identification of a supra-national geographic market is justified in light of the "global needs" of customers for certain products or services. For example, in *BT/MCI*,[62] the Commission noted that the need of multinational businesses to obtain enhanced communications services is *per se* global in scope, and that, therefore, the relevant geographic market should be defined accordingly.[63] In *Vodafone Airtouch/ Mannesmann*,[64] the Commission identified an emerging product market for *"seamless pan-European mobile telecommunication services to internationally mobile customers"*

[58] Case No COMP/M.993 - *Bertelsmann/Kirch/Premiere*, OJ 1999 L53/1.
[59] See, for example in Case No COMP/M.553 - *RTL/Veronica/Endemol*, OJ 1996 L134/21.
[60] Case No COMP/M.856 - *British Telecom/MCI (II)*, OJ 1997 L336/1.
[61] See Commission's Guidelines on the application of EEC competition rules in the telecommunications sector, OJ 1991 C233/2.
[62] Case No COMP/M.353 – *British Telecom/MCI*, 13 September 1993.
[63] Op. cit.
[64] Case No COMP/M.1795 – *Vodafone Airtouch/Mannesmann*, 12 April 2000

recognising that *"there is a distinct demand for advanced seamless pan-European [mobile] services from internationally mobile customers, particular MNCs and large corporations, which is distinct from the demand for national mobile telecommunications services for smaller companies and private users due to the international scope of the large corporations businesses (cross-border international) and their international customer base"*. The Commission found that such a market could be viewed at least as being pan-European.[65]

Demand-driven "one-stop-shop" Elements. The possibility of end users having recourse to a single provider for a bundle of different telecoms services is another element that broadens the scope of geographic markets for communications services and/or networks. For example, in *Unisource*,[66] the Commission recognised the existence of demand by travellers for services *"which include a single bill and which integrate functions such as voice messaging, voice response and information systems appears to be increasingly global"*.[67] Similarly, in *BT/MCI*,[68] the Commission clearly stated that the demand of customers with large international needs is oriented towards a seamless and one-stop provision of global services. In *BT/MCI*,[69] the international scope of the market for value-added and enhanced services to large multinationals was identified in light of customers' requirements for:

- a single point of contact accountable for assuring service levels;
- seamless, uniform, flexible features/functionality across geography;
- end-to-end provisioning, installation, fault management and service support;
- reliable service; and
- customised billing, reporting with language and currency flexibility.[70]

Volume Discounts Across Geographic Regions. Global operators are capable of offering volume discounts which encompass different geographic regions. This occurred recently when Vodafone, thanks to its presence in most Western European countries, launched a basic flat rate roaming product called Eurocall in the countries where it was present.[71] The capacity of trans-national operators to offer volume discounts has been recognised in various Commission decisions,[72] and can clearly lead to a customer-driven supranational definition of geographic markets.

[65] Op. cit.

[66] Case No IV/35.830 - *Unisource*, OJ1997 L318/1.

[67] Op. cit.; see point 31 of the Decision.

[68] Case No COMP/M.353, *British Telecom/MCI* , op.cit.

[69] Case No IV/34.857 – *BT-MCI (I)*, OJ 1994 L223/36.

[70] Op. cit.; see at point 7.

[71] Case No COMP/M.2305 – *Vodafone Group PLC/Eircell*. 2 March 2001. [Withdrawn. NB relaunch]

[72] Case No IV/35.830 – *Unisource*, OJ 1997 L318/1; see also Case No COMP/M.1069 - *WorldCom/MCI*, OJ 1999 L116/1.

Connectivity Relationships (and Regional, National, Trans-national decisions). The importance of interconnection and other types of connectivity relationships between carriers for the purpose of geographic market definition has been highlighted in various Commission Decisions. For example, in *Unisource*, the Commission recognised that *"By their very nature, both supply of and demand for carrier services are at least cross-border regional. Geographic proximity between purchaser and supplier of switched transit capacity is hardly relevant for switched transit which carriers use either as a substitute for operating own international lines or to deal with peak traffic on such lines. Likewise, dedicated transit services offer cable- or satellite-based routing capacity across third countries"*.[73]

The geographic scope of connectivity markets was analysed in *WorldCom/MCI*,[74] where the Commission considered whether all ISPs compete against one another to provide the same connectivity services or whether there are any distinct and narrower geographic markets within the sector. The market for so-called "Top level ISPs", namely, the providers of the Internet backbone connectivity infrastructure, was considered to be global,[75] in light of the fact that such providers could provide transit to all parts of the Internet global network *"entirely on their own account"*.

Effect of "Prepaid" Relationships and Roaming. Calling cards and roaming agreements may provide means by which to overcome both licensing and network barriers to the provision of cross-border services. As such, they contribute to eliminating the impact of network reach and regulatory requirements. In fact, while the deployment of a network is subject to national licensing requirements, recourse to a roaming agreement or a calling card may achieve a virtual extension of the network reach without the cumbersome licensing and economic implications associated with the deployment of a network.[76]

The supra-national effect of roaming services on geographic market definition has been highlighted by the Commission on several occasions. In *Omnitel*, the Commission considered that the market for GSM services was EU-wide. In particular, the Commission stated that *"based as it is on a Community standard, GSM can become a pan-European service. Under 'roaming' agreements between network operators, the system permits any user to make calls from his phone outside the national territory of the operator with which he has taken out a subscription. This facility is available throughout the territory of the parties to the GSM Memorandum of Understanding in Europe and other parts of the world."*[77]

[73] Op. cit.; see point 32 of the *Unisource* Decision. See also Case No COMP/M.1069 - *WorldCom/MCI*, op.cit.

[74] Case No COMP/M.1069 – *WorldCom/MCI*, op.cit.

[75] Although, in effect, the "global market" was limited to connectivity relationships only with US-based providers of Internet "backbones".

[76] See for example Case No COMP/M.544 - *Unisource/Teléfonica*, 6 November 1995, where the Commission clearly draws a parallel between roaming and card services.

[77] Case No COMP/M.538 - *Omnitel*, 27 March 1995.

However, the Commission deviated from this position in the *Vodafone/Airtouch* Case, and seems more recently to have consolidated its administrative practice by consistently considering that markets for basic mobile telephony services are national in scope, principally because of pricing considerations.[78]

2.1.3.6 Geographic Criteria for End User Selection

In the communications sector, it might be justified to distinguish between distinct geographic markets with respect to *urban* and *rural* areas, especially where this coincides with a particular targeted customer category. Indeed, the deployment of a particular type of network infrastructure might be justified only in areas with a sufficient density of population. This approach was adopted in the recent *France Télécom/Equant* Decision,[79] where the Commission stated that "*it may even be possible to divide … customers into those that are situated mainly in the largest cities and business areas*" in a given Member State. Key customers found in the latter type of geographic market might include banks and insurance companies.[80]

2.1.4 Quantitative Tools to Measure Markets (Data-Based Evidence)

Due to the relative lack of experience and information in relation to many areas in the communications sector (especially with respect to the introduction of new or innovative products), recourse to traditional legal standards of market definition may yield results that are inconclusive. In these circumstances, the traditional approach to market definition might need to be complemented by a detailed empirical analysis of the market in question, taking into account a number of factors discussed below.

2.1.4.1 Price Elasticities and Residual Demand Estimates

There are several types of price elasticity that are relevant for market definition. The two most important of these are "own price elasticity of demand" (often described as price elasticity of demand) and cross-price elasticity of demand.

Own price elasticity of demand (ε_x) measures the proportionate change in demand for good x as a result of a proportionate change in its price. A high price elasticity of

[78] Case No COMP/M.1430 - *Vodafone/Airtouch*, 21 May 1999, points 13 to 17. See also Case No COMP/M.2305 - *Vodafone Group PLC/Eircell*, 2 March 2001 and Case No COMP/M.2053 - *Telenor/BellSouth/Sonofon*, 4 August 2000. See, however, the considerations above in connection with the different market for seamless pan-European mobile telecommunications services to internationally mobile customers, as identified in the *Vodafone Airtouch/Mannesmann* Decision.

[79] Case No COMP/M.2257 - *France Télécom/Equant*, 21 March 2001.

[80] Ibid., at para.45.

demand[81] indicates that a small change in price will result in a proportionately much larger change in quantity demanded; *i.e.*, it is price elastic. Where this is the case, firms will not be able to increase profits by raising price, since consumers would respond to such an increase by decreasing their demand by too great a level for this to be profitable. This would be the case even for a hypothetical monopolist. The approach is complex and its results are subject to misinterpretation.[82]

Cross-price elasticity of demand (ε_{xy}) measures the proportionate change in demand for service *y* following the proportionate change in price of service *x*. A high cross-price elasticity of demand suggests that the two goods or services are good substitutes for each other; *i.e.*, if the price of *x* increases, the demand for *y* increases, suggesting that the goods or services are in the same product market.

In many cases where there are market power problems, cross-price elasticity for demand may well provide misleading information, as prices are likely to have been raised to a level where demand is relatively price sensitive (*i.e.*, at to or near monopoly levels at the limit of what people are willing to pay), making other services appear to be adequate substitutes when this may not be the case but for the price of *x* having already been raised. (This phenomenon is known as the '*Cellophane Fallacy'*, discussed above).

Another potential pitfall with cross price elasticities results from one-way substitutability, or where when cross price elasticity is different when comparing *x* to *y* than when comparing *y* to *x*. In such cases, a different market definition may be appropriate, depending on the order in which cross elasticity is measured.

2.1.4.2 Price – Concentration Analysis

There is usually a high correlation between firms having a high market share and firms having market power. High market shares are, nevertheless, not sufficient of themselves to confer market power. However, where market power appears to be absent (*i.e.*, a firm has little control over price), but an entity has very high market share, it places an additional onus on the parties to define correctly the relevant product market. Where concentration is very high[83] and prices are not statistically different to those in other areas where concentration is low, this can suggest that:

[81] In other words, a larger absolute number as price elasticity of demand is normally negative (*i.e.*, downward-sloping).

[82] *See* Werden, G. (1998), "Demand elasticities in antitrust analysis", *Antitrust Law Review*, 66: 363-414; and Froeb, L. and Werden, G. (1992), "Residual demand estimation for market delineation: Complications and limitations", *Review of Industrial Organisation* 6: 33-48, for a discussion of some of the problems that can arise.

[83] Concentration is typically measured by the Herfindahl-Hirschman index (equal to the sum of the squares of the market shares).

- The market has been drawn too narrowly. For example, if a firm had 100% of a market in location *X*, and 20% of the market in location *Y*, and prices were not statistically different between *X* and *Y*, it may be that either the product or the geographic market definition is too narrow.

- The market is subject to 'hit and run' entry (unusual), or firms in nearby markets are able to switch capacity fairly easily, so that the apparently dominant firm has no market power as a result of the ease of supply-side substitution.

Where prices in *X* and *Y* diverge, *X* and *Y* may not be in the same geographic market.

2.1.4.3 Price Correlation and Speed of Adjustment

As a general rule, the comparison of absolute prices of two (or more) services will not be a valid means of determining whether those service are in the same product market. One of the main problems with communications service comparisons is that they are rarely directly comparable. The underlying elements are frequently not the same, and from an end user’s perspective, they might not be perceived as perfect substitutes (even if the underlying physical elements are the same). In this regard, customer perceptions are important.

A more useful tool is to look at the correlation of prices over time (*i.e.*, to analyse the relative price changes over time rather than to look at absolute prices). If prices are highly correlated, the services may fall within the same market. However, correlation does not tell us much (if anything) about causation, and a high correlation coefficient may be explained by the similar underlying factors pushing the changes of both prices while there could be little real competition between the two services. Correlation between prices may diverge or get closer over time, due to such things as changes in underlying costs, or changes in service quality, or a different level of common influence imposed by some other factor. In the absence of being able to explain the price movement, it can be dangerous to draw inferences about market definition from price correlation data. A high correlation between price series is not a sufficient condition for two services to fall within the same product market. Similarly, a divergence in correlation between two price series over time does not necessarily point to services not being in the same product market.

The speed of adjustment of a product price or geographic area to a price change of another product or geographic area, has also been suggested by a number of authors as a test for market definition. The test suffers from much the same problems as the price correlation analysis discussed immediately above, particularly autocorrelation.

There are more sophisticated econometric techniques for aiding in the delineation of antitrust markets, namely, ‘Granger causality’ tests and a test for cointegration. The

Granger causality test is a test for feedback effects between two price series, and can be used to determine whether determinants of prices for *x* include previous prices for *y*; namely, it can be used as a test for erogeneity (whether disturbances in *y* are also influential in causing changes in *x*). Cointegration is a test of whether or not two series are bound together or, in the long run, will drift further apart. Two series are cointegrated if each *"first achieves stationarity after first differencing, but a linear combination … is already stationary"*.[84]

Both Granger causality and cointegration tests suffer from problems similar to those affecting tests for correlation.[85]

2.1.4.4 Event Studies

Events that have implications for the expected future profitability or valuation of firms typically result in share price movements. For financial markets, such events appear as information released onto the market.[86] Where information is released which indicates a change in a company's competitive position, the information will result in a more or less immediate change in the company's share price.[87] Equity markets have been shown to be extremely good at interpreting information with implications about a firm's future profitability. Indeed, the response of equity markets to specific pieces of information can provide valuable empirical evidence regarding the real effect on a firm of a specific event. The theoretical basis for this conclusion is found in a moderate version of the *Efficient Markets Hypothesis*.[88] The hypothesis states that all publicly available information is incorporated into the stock price, such that no one can systematically bet against the market and win on the basis of information about which the market knows. There is much empirical evidence supporting this hypothesis.

Events that move stock prices can provide information that assist in defining markets. These events may include: earlier merger / acquisition (M&A) activity, announcements about new products or services, technological developments, announcements about changes in regulation, sharp exchange rate changes when they occur within or near the Candidate Market and change the potential profitability of a good or service in

[84] Werden, G. and Froeb, L. (1993), "Correlation, causality, and all the jazz: the inherent shortcomings of price tests for antitrust market definition", *Review of Industrial Organisation*, 8: 329-353, p. 344.

[85] *Idem,* for a discussion of some of the problems encountered through the use of price correlation, Granger causality and cointegration tests to aid in market definition.

[86] Event studies offer a superior alternative to interpreting company accounting data. There are problems with interpreting such data, such as profitability and efficiency ratios of firms involved in, or near, markets in which important events occur. The data are assembled some time after the event, and after other "contaminating events" have occurred, making it difficult to disentangle the net effect of a single decision from balance sheet data.

[87] Within minutes of such market sensitive information being announced, it is typically relayed across the world through information services, such at those provided by Reuters.

[88] *See*, for example, Fama, E. (1970), "Efficient capital markets: A review of theory and empirical work", *Journal of Finance*: 383-417.

comparison to other (substitute or complementary) goods or services. For market definition purposes, relative share price movements of firms competing within, or offering potential substitutes for, services in the Candidate Market, can provide information about the market's view of the degree of competition between firms or products.

The causes of share price movements can be complex, and the link between events and share price changes needs to be understood to avoid conclusions being drawn about causation that are not consistent with the underlying facts. Indeed, empirical attempts to translate the effects of events (external to the firm or strategic corporate decisions) face methodological difficulties that cannot be overcome easily. However, event studies can provide a valuable source of information relevant to market definition when undertaken objectively, rather than to support an *a priori* position.[89]

2.1.4.5 Client Studies

Where firms provide goods or services on the basis of longer term contracts or large volume contracts, the closer the firms will compete with each other. In these circumstances, it would be expected that they for work with the same clients. Such studies do not typically involve econometric tests, and thus provide rather more general evidence than much of what is discussed above.

2.1.4.6 Consumer Surveys

Obtaining accurate consumer information through surveys about future (hypothetical) economic behaviour is much more difficult than is frequently recognised.[90] Surveys that seek to discover from consumers their hypothetical response to a change in an existing set of conditions (such as occurs when the provider of a service raises it price(s) by 5%), may provide unreliable data. The main problem to be overcome with such surveys is that when it comes to asking people about what their economic behaviour would be if certain events occurred, such as the conditions under which they would no longer purchase *X* but would switch to *Y*, their responses may not match their actual behaviour when faced with the same situation. Without making the hypothetical situation real, it is not possible to know whether answers are an accurate reflection of likely future behaviour. Consumers' stated preferences (what they say) often do not correspond with

[89] As is also recognised by the Commission in its "*Relevant Market Notice*, where it comments that this sort of information will normally be fundamental for market definition", especially where the object is to measure the reaction of firms in terms of qualities demanded and on the consequences of launches of new products (when it is possible to analyse with precision "which products lost sales to the new products")

[90] In the last thirty years, there has been relatively frequent use of surveys of what consumers say they would do when faced with a particular set of economic choices. Values derived in such surveys have actually been used by U.S. authorities.

their revealed preferences (what they do). Evidence that this discrepancy occurs has been established under controlled experiments.[91] It seems that survey design alone cannot remove this problem. Moreover, it is not possible to identify where *stated* economic behaviour will diverge from *actual* economic behaviour, nor to predict the scale of any such divergence.

Such survey anomalies take many forms, and many explanations of anomalies have been suggested. Questions which respondents think could be related to public policy are likely to appeal to respondents' ideological and political beliefs. Researchers may obtain answers which do not reflect respondents' economic preferences, but answers that reflect their attitudes to such questions.[92]

Information that is obtained by questionnaire about what consumers say they would do when faced with a particular set of economic choices, must therefore be treated with great caution. Careful question and survey design and interviewing will help alleviate, but cannot completely overcome, such problems.

2.1.5 Identifying factors that make markets susceptible to *ex ante* regulation

The *Framework Directive* makes clear that *ex ante* regulatory obligations should only be imposed where there is not effective competition; in other words, in markets where there are one or more undertakings with SMP and where national and Community competition law remedies are not sufficient to redress the problem.[93] Therefore, it is critical to the market definition process to put forward a cohesive theoretical platform to guide regulators as to the rationale for justifying *ex ante* regulation.

There are generally considered to be three criteria that influence whether markets are susceptible to *ex ante* regulation:

- *First*, whether a market is subject to high and non-transitory entry barriers;
- *Second*, whether a market has characteristics such that it will tend over time toward effective competition without the need for *ex ante* regulatory intervention; and
- *Third*, whether competition law is sufficient by itself (without *ex ante* regulation) to redress the market failure.

[91] Cummings, R., Harrison, G. & Rutström, E. (1995), "Home Grown Values and Hypothetical Surveys: Is the Dichotomous Choice Approach Incentive Compatible?", *American Economic Review*, 85 (1): 260-266.

[92] For evidence and a discussion of the various anomalies found in survey results based on hypothetical economic scenarios, *see* the collection of papers in Hausman, J. (1993), *Contingent Valuation: A Critical Assessment, Contributions to economic analysis*, North Holland.

[93] See Recital 27 of the Framework Directive.

2.1.5.1 Barriers to entry and to the development of competition

Given that the principal policy goal of *ex ante* regulation is the removal or amelioration of market failure, there will always be those who will contend that many if not all forms of market failure (regardless of whether a given product market is found to be not "effectively competitive" at a given point in time) can be addressed over time by market forces themselves. This approach, however, presumes that all markets are effectively "contestable". Markets will be contestable, and market failure should be left to be addressed by the market itself, if the relevant markets in question are not characterised by insurmountable entry barriers. Accordingly, we take the view that the nomination of relevant markets for *ex ante* regulation should be based on a comprehensive understanding of whether entry barriers are of such significance as to render the particular market in question as unlikely to be characterised by effective competition in the absence of *ex ante* regulation. Our understanding of the manner in which the contestability of markets should be appraised follows below.

2.1.5.1.1 The Key Element of *Ex Ante* Analysis: Barriers to Entry and Contestability

The existence of non-transient barriers to entry is the main obstacle to the development of effective competition. A barrier to entry is a restriction on entry into the market which allows firms already in the market to charge prices above their otherwise competitive levels while not attracting new competitors. In the absence of barriers to entry, even the behaviour of a dominant firm can in theory be effectively governed by the threat of competition. In theory under certain conditions, the threat of entry will force even a dominant firm to price at levels which ensure both efficiency in production and competitive pricing.

ICP-ANACOM is concerned with barriers to entry which:

- are sufficiently high to merit *ex ante* regulation, bearing in mind that almost all industries exhibit some form of barrier to entry, without being regulated *ex ante*; and
- are of the kind which warrants being addressed through *ex ante* regulation and which cannot effectively be addressed through alternative means, such as action to reduce or to remove them, or using competition rules in specific cases.

Unfortunately, there is neither a universal metric for the comparative measurement of the height of all kinds of barriers to entry, nor a complete understanding of all factors that can operate as entry barriers. In some cases, where the barrier is absolute, its height is infinite. In other cases, judgements have to be made which can be informed by calculations. For example, if the barrier to entry arises through the existence of a scale economy, the extent of this scale economy can be measured (*e.g.*, as cost volume elasticity). In relation to the choice of the appropriate regulatory response, *ex ante* regulation is most appropriate where it performs better than other responses. This is likely to be the case where a barrier to entry cannot be reduced or removed otherwise, where the source of the barrier to entry is durable and persistent and where the probability of detriment to consumers is high.

On the basis of these criteria, entry barriers with the characteristics identified above are discussed below. Other forms of entry barrier are not regarded as material for ICP-ANACOM's purposes. In all cases, a high level of barrier to entry should usually be required to warrant *ex ante* regulation. Moreover, while high entry barriers are a necessary precondition to regulation, they should not be sufficient of themselves to warrant *ex ante* regulation *unless and until* an effective competition analysis has already reached negative conclusions. A conclusion as to the effective competitiveness of any given relevant market depends, among other things, on the number of firms operating behind the entry restrictions. Moreover, the likelihood of effective competition increases with the number of operators, particularly where there are low barriers to expansion. There is ample evidence of new firms entering markets with high entry barriers.

Customer inertia, of itself, is not an adequate basis for *ex ante* regulatory intervention. These types of concerns are best addressed through various informational and educational measures. It may be otherwise, however, if customer interia results from significant switching costs. There are two types of switching costs – exogenous switching costs arise from external factors; endogenous costs result from the firm's behaviour (*i.e.*, they are "artificial"). Endogenous cost result from the (potentially abusive) conduct of the operator imposing them.

2.1.5.1.2 Barriers to Entry Justifying *Ex Ante* Regulation

These arise when there is an absolute barrier to entry. They can take one of two forms: (a) legal or technical; or (b) regulatory. Moreover, absolute entry barriers can, in theory, also arise from scale-related operating requirements in particular circumstances. Where scale-related barriers co-exist with legal, technological or regulatory barriers, their net effect can be an absolute barrier to market entry.

Legal and Technological Barriers

Legal barriers might take the form of a requirement that firms have a licence in circumstances where additional licences are not available. Alternatively, there may be a legal limitation on the availability of a particular input which is necessary to produce a relevant service. These two considerations come together in the case of wireless technologies, for which operators require both a licence and access to spectrum. As a consequence, entry by network providers into wireless markets is effectively blocked, without secondary trading of spectrum.

A legal barrier to entry of this kind should not be sufficient, of itself, to justify the conclusion that the market requires an assessment as to whether or not it is effectively competitive. The level of competition depends, among other things, on the number of firms operating behind the entry restrictions. Moreover, the likelihood of effective competition increases with the number of operators, in particular where there are low barriers to expansion.

Consideration has to be given to whether legal barriers to entry can be removed. For example, in recent years, competition has been facilitated by changes relating to operators' rights to undertake the civil works necessary to construct their networks and gain access to numbers. The legal barrier to entry in relation to wireless operators can, in principle, be alleviated in part by spectrum trading, thereby allowing greater economic efficiency and lowering entry barriers.

Technological barriers can occur where the provision of the service requires the use of a network component which can only be duplicated at a cost which makes it uneconomic for second or third entrants, given the capability already in place. The obvious illustration of such a barrier is call termination. Using existing technologies, a call to Customer Promises Equipment ("CPE") owned by a subscriber can only be terminated through the path which connects that CPE to the network. If a subscriber has only one line, there is no immediate scope for substitution (in the absence of a technical means through which terminating access can be made available to third parties). There would thus be a barrier to entry to provision of the service. Competition could, however, be introduced if a customer could be contacted on an alternative line, if termination by a third party over the single connection became possible or if the customer's choice of operator were significantly influenced by termination charges.

There is a substantial probability that technological exclusion of this kind will create a barrier to entry which justifies *ex ante* regulation.

Regulatory Barriers to Entry

These arise when, as a result of regulatory policy or previous practice, entry into a particular market is too risky or perhaps even financially non-viable, and this situation is expected to persist. This arises, for example, when the NRA, in pursuit of other objectives - typically relating to affordability - imposes a retail pricing structure which means that some services are individually provided at below cost or without rates of return that support a business case to enter the market. This does not imply that the operator providing such services is doing so on a non-commercial basis, since its customers may buy other services which, in aggregate, make the service package profitable (although this practice perpetuates cross-subsidisation). It does, however, make entry into the 'loss-making' market risky and unattractive. The most obvious example of this phenomenon is the retail pricing of access. In some Member States, charges fail to cover the forward-looking long-run incremental costs of provision. This tends to have the effect of attracting entry to services traditionally used to cross-subsidise access, and deterring competing provision of access.

Tariff rebalancing can address such problems. However, experience suggests that rebalancing occurs slowly, so that this regulatory barrier may persist. In addition, the non-competition-related policy drivers behind other regulation that may appear to create barriers to entry (*e.g.,* affordability requirements) must be considered.

Perhaps most importantly, however, where investors perceive significant regulatory uncertainty, they tend to be reluctant to invest or enter new markets, especially where that entails large sunk costs and assets are long-lived. Where such investments are made (*e.g.*, where entry occurs), changes in regulation can fundamentally alter the commercial environment, possibly undermining the profitability of such investments. If it appears that there is a significant risk of this occurring, entry and investments are likely to be reduced or might not occur at all. This situation can result in an incumbent appearing to have enduring market power, not because of excessive conventional entry barriers, nor because of strategic use of apparent market power, but because others are not prepared to enter the market due to perceived regulatory risks. Such problems can be characterised in terms of regulatory commitment, or the lack thereof. No jurisdiction is completely free of this problem, and in some cases it might be an important cause of enduring market power.[94]

Scale-related Barriers to Entry

Economies of scale do not of themselves create a barrier to entry that cannot be overcome. For economies of scale to be such as to prevent entry, they must operate over a range which is large in relation to the market as a whole. If, for example, an industry exhibited economies of scale, but the minimum efficient scale (the level of output where a firm’s costs are insignificantly different from the minimum) represented only ten percent of the market as a whole, then a scale economy of that kind would not represent a barrier to the development of effective competition. These considerations suggest that, for scale to represent a substantial barrier to entry, the minimum efficient scale should be large relative to the total market, and that exit from the market should be costly as a result of substantial sunk expenditures which are not recoverable on exit.

It is possible to establish whether an entrant would incur substantial sunk costs by examining the kind of investments which have to be made. Generally, investments in resalable capital equipment, such as switches, are not sunk. Investments in civil works and underground plant can only be sold *in situ*, and as they have few if any other uses, they tend to have limited resale value such that substantial proportions of their value may not be salvaged on exit.

[94] For a readable discussion of these issues see Levy. B., and P. Spiller, (1994), “The institutional foundations of regulatory commitment: A comparative analysis of telecommunications regulation”. Journal of Law, economics, and organisation, 10, 2: 201-246. For a more theoretical discussion see Laffont, J.-J. (1994), “The new economics of regulation: Ten years after”, Econometrica: 62, 3507-537.

Identifying the extent of scale economies represents a greater problem. A number of studies using engineering cost models address aspects of this problem in the fixed and mobile sectors. For example, they demonstrate that a local fixed distribution network exhibits large economies of scale. When economies of scale are accompanied by economies of scope, the barriers to entry can extend to related markets. This effect can, however, be nullified if there are alternative technological means of delivery

2.1.5.1.3 Barriers to Entry Not Warranting Inclusion in a Candidate Markets List

It is clear that the types of barrier to entry listed above are not exhaustive, and indeed there is no complete list of what constitutes an entry barrier. Many other kinds exist. In particular, the three listed above are all non-strategic (*i.e.*, barriers to entry that are not artificially 'manufactured' by the firm which enjoys them). It is therefore necessary to consider the absence from the list of both some non-strategic, and also strategic, barriers to entry. These additional barriers to entry may raise barriers already created by those factors listed above. It may therefore be appropriate to take them into account when they augment materially such and thereby have an impact on any SMP assessment.

Absolute Cost Advantages

Some firms have lower input costs or better technology. These might derive in part from the fact that they were first in the market or were more efficiently managed. Such advantages are not, of themselves, grounds for regulatory intervention. A firm enjoying these advantages (and no others), would be constrained in its pricing by the costs of the second most efficient producer. In the circumstances, that would be a competitive price.

Product Differentiation Advantages

The high reputation enjoyed by a particular supplier might also represent a barrier to entry. This occurs in all markets, and is not a basis for *ex ante* regulatory intervention.

Demand-side Network Effects

In some cases, consumers may derive benefit from a service in a way which increases with their number. This might result in two types of "network effects" which may have some undesirable consequences. First, demand for the product may become less elastic in terms of price or income (which could be exacerbated by technological barriers). Second, network effects might, in certain circumstances, be found where the existence of a first mover advantage, coupled with other factors militating against customer churn, creates an enduring competitive advantage for the largest firm over its smaller rivals, creating the risk of the market "tipping" in its favour. However, this would not be a sufficient condition for *ex ante* regulation. Such markets may still be subject to competitive pressures over the long-term as fringe competitors seek to replace the dominant operator through, for example, technological advancement. It should also be noted that other regulatory measures, such as requirements for interoperability and end-to-end connectivity, may at least partly alleviate the risk of tipping (*e.g.,* Recital 6 and Article 4 of the *Access & Interconnection Directive*). Where standards are proprietary and give rise to network effects (*e.g.*, Microsoft's operating system), however, owners' property rights are often protected unless it can be successfully argued that the standard is an "essential facility".

Consumers can benefit from certain types of network effects. The appropriate response in these circumstances is to ensure that the firm benefiting most from the direct network effects is prevented from engaging in anti-competitive conduct.

Strategic Barriers to Entry

These include many types of possible conduct. They may take the form of excessive investment in capacity, R&D or advertising, which creates in the minds of entrants the expectation that entry will be subject to a strongly competitive response by an incumbent. It may also have the effect of raising rivals' costs, for example by seeking to pre-empt inputs, raising the price of inputs, or artificially inflating consumers' switching costs.[95]

There should be no general expectation or assumption that a particular firm will behave in any of these ways. Each observation tends to be idiosyncratic, relating to a particular set of factors. In these circumstances, it may be preferable to rely on a focussed application of competition rules to address the circumstances of any particular complaint. However, dominant firms are likely to be able to engage in strategic actions in the markets they dominate (which may allow them to leverage power into other markets), and which: (i) may not be illegal under competition rules, but have the effect of enhancing market power;[96] or (ii) are too difficult to prosecute because the proof needed cannot be obtained. In such cases, *ex ante* regulation preventing certain behaviour can increase entry and investment, and improve the performance of the industry. Strategic acts that may be prevented by regulation are present in communications markets where, for example, new entrants need to purchase and lease certain inputs from incumbents (*e.g.*, interconnection, leased lines, co-location). Where a dominant operator can, for example, make delivery times or other terms uncertain, it can delay or prevent entry.

[95] Kreps and Wilson's seminal paper showed us that market power is not only explained by economies of scale and scope and 'traditional' entry barriers, but is created or enhanced by the incumbent's behaviour: Kreps, D., and Wilson, R., (1982), "Reputation and imperfect information", Journal of Economic Theory, 27: 253-279.

[96] Hiring highly skilled expert staff who are in very short supply, may be such an example.

2.1.5.1.4 Relative efficacy of competition law and *ex ante* regulation in dealing with market failure

A major element of the market definition exercise is an assessment of whether *ex post* application of competition rules alone is sufficient to reduce or remove entry barriers or restore effective competition, whether because of the time required to resolve an individual complaint, the lack of effectiveness of certain competition law remedies or the need to address recurring structural problems (rather than individual, behavioural abuse).

In general, *ex ante* regulation is an appropriate response where the application of competition law would not adequately address the market failures. This is likely to be the case where a barrier to entry cannot be reduced or removed by other means (*e.g.*, through direct action to reduce or remove the barriers to entry, or through application of *ex post* competition rules), where the barrier to entry is durable and persistent, or where the probability of detriment to consumers is high. On balance, retail markets are more likely than wholesale markets to be candidate markets where the application of competition law is sufficient (whether in terms of determining the legality of abusive practices, the appropriateness of remedies, and so on.

2.2 Market Analysis Procedure

2.2.1 Overview Of Current Definition Of SMP

The amended *Leased Lines Directive*,[97] the *ONP Voice Telephony Directive*[98] and the *Interconnection Directive*[99] require NRAs to identify organisations that have SMP for the purposes of the regulatory obligations imposed by those directives. An organisation is currently presumed to have SMP when it has a share of more than 25% of a particular telecoms market in the geographic area within which it is authorised to operate. NRAs may, nevertheless, determine that an organisation with a market share of less than 25% in a relevant market has SMP. They may also determine that an organisation with a market share in excess of more than 25% in a relevant market does not have SMP. In either case, the SMP determination, in addition to the market share calculation, is to take into account:

[97] Council Directive 92/44/EEC of 5 June 1992 on the application of open network provision to leased lines, O.J. 1992 L 165/27, as amended.

[98] Directive 98/10/EC of the European Parliament and of the Council of 26 February 1998 on the application of open network provision (ONP) to voice telephony and on universal service for telecommunications in a competitive environment, O.J. 1998 L 101/24.

[99] Directive 97/33 of the European Parliament and of the Council of 30 June 1997 on interconnection in telecommunications with regard to ensuring universal service and interoperability through application of the principles of Open Network Provision (ONP), O.J. 1997 L 199/32.

- the organisation's ability to influence market conditions;
- its turnover relative to the size of the market;
- its access to financial resources; and
- its experience and expertise in providing products and services in the market.
- In addition, the *Interconnection Directive* adds two conditions, namely:
- its control of the means of access to end users; and
- its international links.[100]

The determination of SMP by an NRA involves several stages, including the identification of the relevant market. The definitions of these relevant markets are set out in the various ONP directives. Although NRAs have little discretion in defining the scope of the relevant market(s) under ONP rules,[101] they have considerable discretion in determining the criteria to be used in measuring the market shares of the various actors in those markets, and in deviating from the 25% market share SMP presumption (where such a determination can be objectively justified).

2.2.2 Overview of future definition of SMP

ICP-ANACOM is obliged under the *Framework Directive* to determine whether a relevant product market is effectively competitive in a given geographic area prior to determining whether to impose, maintain, amend or withdraw obligations on undertakings considered to have SMP.[102] While the body of the *Framework Directive* does not contain a definition of "effective competition", Recital 27 of the Directive states that a relevant market will not be effectively competitive "*where there are one or more undertakings with significant market power*".

Specifically, Article 14(2), first paragraph, of the *Framework Directive* states that:

> *"[A]n undertaking shall be deemed to have [SMP] if, either individually or jointly with others, it enjoys a position equivalent to dominance, that is to say a position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers*".

[100] *See* Recital 6 of the *Interconnection Directive*.

[101] NRAs, however, have considerable discretion in determining the products and services that make up the markets identified in the *Interconnection Directive*.

[102] Article 16.

Accordingly, the *Framework Directive* aligns the concept of SMP with the concept of dominance under EC competition rules.[103] An undertaking may be deemed to have SMP either individually or jointly[104] with other undertakings in a relevant market. In addition, where an undertaking has SMP on a specific relevant market, it may also be deemed to have SMP on a closely related market, where the links between the two markets are such as to allow the market power held in one market to be leveraged into the other market, thereby strengthening the market power of the undertaking.[105] Each of these concepts is discussed in greater detail below.

2.2.3 Identifying Individual SMP

2.2.3.1 Introduction

Having defined a relevant market, ICP-ANACOM will investigate, *inter alia*, whether there exists an undertaking with an individual dominant position in it, in accordance with Article 14 of the *Framework Directive*. Individual dominance is a legal term used to describe a situation in which a firm has a significant degree of market power. In *Hoffmann-La Roche v. Commission*,[106] a case concerning Article 82 EC, the ECJ stated that a dominant position:

> "*relates to a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, its customers and ultimately of the consumers*" (at paragraph 38).

This language is reflected in the definition of SMP in Article 14(2), first paragraph, of the *Framework Directive*, while it is also generally accepted as being synonymous with the economic theory on the concept of a high degree of market power. According to the

[103] Recital 25 of the *Framework Directive* states that the new SMP definition "*is equivalent to the concept of dominance as defined in the case law of the Court of Justice and the Court of First Instance of the European Communities*". Paragraph 70 of the *Market Analysis and SMP Guidelines* notes that, as a consequence of this alignment, NRAs will have to ensure that their decisions are in accordance with the Commission's practice and the relevant jurisprudence of the European Courts on dominance.

[104] The term "joint dominance" has also been referred indiscriminately to as "oligopolistic dominance" or "collective dominance". In his Opinion in *Compagnie Maritime Belge*, Advocate General Fenelly noted at paragraph 15 that he saw no meaningful distinction between "joint" and "collective" dominance, but he would use the latter term on the grounds that it is the term more usually employed by the Court. *See*, Opinion of 29 October 1998, Joined Cases C-395/96 and C-396/96 P, *Compagnie Maritime Belge NV and Dafra-Lines v. Commission*. The Commission indicated in its *Airtours/First Choice* Decision that the terms "collective dominance" and "oligopolistic dominance" were used synonymously in its decision. *See*, Commission Decision of 22 September 1999, Case IV/M.1524 – *Airtours/First Choice*, on appeal in Case T-342/99, *Airtours Plc. v. Commission* ("the *Airtours/First Choice* Decision").

[105] Article 14(3) of the *Framework Directive*.

[106] Case 85/76, *Hoffman-La Roche & Co. AG v. Commission*, [1979] ECR 461.

Market Analysis and SMP Guidelines, market power in an *ex ante* analysis is "*essentially measured by reference of the power of the undertaking concerned to raise prices by reducing output without incurring a significant loss of sales or revenues*" (at paragraph 73).[107] The following passage in *EC Competition Law* by Faull and Nikpay is also instructive in this context:[108]

> "*Market power defined – what is dominance? Dominance is a position of considerable economic power held for a period of time by firms over customers and/or suppliers in a market. More specifically, it is the ability of firms to restrict output and thus raise prices above the level that would prevail in a competitive market, without existing rivals or new entrants in due time taking its customers*" (at paragraph 3.25).

The authors go on to add that:

> "*the Court has in successive judgments essentially retained this [classic definition of a dominant position]. The Court emphasises the notion of a dominant firm's independence from competitive forces normally constraining a supplier in the market. This does not mean that a firm must, in order to be dominant, be able to ignore competition entirely and simply do as it wishes by, for example, raising prices without any constraint. Indeed a firm can be dominant even in circumstances where it must sometimes take competitive factors into account in determining its commercial behaviour. If, however, a firm can substantially disregard, and keep safely at bay, its competitors over a long period of time, this is a clear indication of dominance*" (at paragraph 3.29).[109]

2.2.3.2 Basic Principles

It should be borne in mind that an assessment of whether a firm is individually dominant in a relevant market for the purposes of the communications regulatory framework is obliged to take account of the essential principles below.

[107] The ability to raise prices in the relevant market and the ability to restrict output are equivalent. This is because demand slopes down, meaning that a firm cannot raise prices without restricting output. If a firm restricts output, prices will inevitably rise.

[108] *The EC Law of Competition*, Faull & Nikpay, Oxford University Press, 1st edition.

[109] Similar views were expressed in *Hoffman-La Roche v. Commission*, where the ECJ observed that "*even the existence of lively competition on a particular market does not rule out the possibility that it is a dominant position on this market since the predominant feature of such a position is the ability of the undertaking concerned to act without having to take account of this competition in its market strategy and without for that reason suffering any detrimental effects from such behaviour*" (at paragraph 70).

(i) *While the concept of dominance is identical under various legal instruments, its application may differ under each of these instruments.*

In its *SMP and Market Analysis Guidelines*, the Commission considers that the definition of SMP is aligned with the European Court's definition of dominance within the meaning of Article 82 EC.[110] However, the *Framework Directive* does not refer explicitly to Article 82 EC.[111] Indeed, a similar concept of dominance is found under the *Merger Regulation*. While the concept of dominance remains consistent between these three legal instruments,[112] the manner in which it is applied differs in each instance. In other words, the new regulatory package draws on the methodologies for the application of the dominance test under Article 82 EC and the *Merger Regulation*, but its own application of the dominance test remains distinct.

Article 82 EC is concerned with the dominance of an undertaking(s) at the time of the assessment (or more specifically, the abuse), while the *Merger Regulation* is less concerned with the notifying parties' current and/or past market power, focusing instead on whether the concentration results in the creation or strengthening of a dominant position in the future (as the merged entity has yet to participate in the relevant market). The concept of dominance under the new communications regulatory framework utilises elements of both methodologies. While the application of the dominance test under the new regulatory package is closely aligned with Article 82 EC, the assessment of dominance under the *Framework Directive* adopts the prospective nature of the assessment of dominance under the *Merger Regulation* in order to determine whether an existing dominant position is contestable in the longer term.[113]

The use of the methodology above is acknowledged in the *Market Analysis and SMP Guidelines*, which state that the designation of an undertaking as having SMP in a market identified for the purposes of ex ante regulation "*merely implies that, from a structural perspective, and in the short to medium term, the operator has and will have, on the relevant market identified, sufficient market power to behave to an appreciable extent independently of competitors, customers, and ultimately consumers*" (at paragraph 30). The *Framework Directive* requires that an undertaking be in a dominant position *at the time* of the market analysis prior to the imposition of *ex ante* regulatory

[110] Paragraph 70 of the *SMP and Market Analysis Guidelines* provide that *"[T]he new framework has aligned the definition of SMP with the Court's definition of dominance within the meaning of Article 82 of the Treaty*". It refers to Recital 25 of the *Framework Directive* in support of its position.

[111] While the wording of Article 14(2), first paragraph, reflects the definition of dominance as prescribed by the ECJ in its *Hoffman-La Roche* judgment, the *Framework Directive* does not in any place refer explicitly to Article 82 EC.

[112] Many scholars point out that though the scope and purpose of the *Merger Regulation* and Article 82 EC are considerably different, the concept of dominance in both provisions remains identical. For example, the authors Faull & Nikpay state that "[*T*]*here is no reason to believe that the concept of dominant position in the Merger Regulation has a meaning different from the concept in Article 82 of the EC Treaty*"(at paragraph 3.32). *The EC Law of Competition*, Faull & Nikpay, Oxford University Press, 1st edition.

[113] Recital 27 notes that an analysis of effective competition should include an analysis of whether the market is prospectively competitive and thus whether any lack of effective competition is durable.

obligations.[114] The ability of NRAs to conduct regular assessments of market dominance supports this position,[115] in the sense that there is an absence of a need to focus on an emerging or future dominant position in a once-off review.

(ii) The concepts of dominance and market power are evolving.

The application of the concept of dominance under Article 82 EC and the *Merger Regulation* has evolved, allowing it to be adapted both to developments in economic theory and to refinements of the now available econometric tools to measure market power, particularly sophisticated micro-economic tools, instruments and tools developed by econometric and industrial organisation research. This evolutionary aspect of the analysis should be especially borne in mind when ICP-ANACOM takes account of the earlier administrative practice of the Commission and the case-law of the European Courts.

(iii) An assessment of dominance involves an analysis of both structural and behavioural aspects of the market.

In particular, this analysis concentrates on three principal aspects capable of placing effective competitive constraints on firms, namely:

- intra-market rivalry;
- potential competition; and
- countervailing purchasing power.

Each of these aspects is examined in greater detail in sections 2.2.3.3 to 2.2.3.5 below.

(iv) A market analysis should be based on a rigorous economic analysis.

Recital 13 of the *Access Directive* notes that an economic market analysis based on competition law methodology should be undertaken by ICP-ANACOM, while *the Market Analysis and SMP Guidelines* note that an NRA should undertake a thorough and overall analysis of the economic characteristics of the relevant market before reaching a conclusion as to the existence of SMP.[116] Hence, even if a relevant market is specified in the *Relevant Market Recommendation,* its inclusion does not obviate the need for a full economic analysis of that market to be undertaken. It should also be borne in mind that the European Courts have annulled several Commission merger decisions in recent times on account of their lack of economic reasoning.

[114] In addition to requiring that national and Community competition law remedies provide insufficient remedies. The reference to the sufficiency of *ex post* competition rules is found in Recital 27 of the *Framework Directive*, though this condition is confined to the introductory recitals.

[115] Article 16(1) of the *Framework Directive*.

[116] *See*, for example, paragraph 78.

(v) A market analysis should be prospective in nature.

ICP-ANACOM's analysis of individual dominance will include an assessment of "*whether the market is prospectively competitive, and thus whether any lack of effective competition is durable*".[117] The Commission adopts a similar approach in relation to temporary dominance in its merger investigations.[118] This principle is discussed in the context of principle (i) above.

(vi) ICP-ANACOM enjoys a degree of discretion in conducting its market analysis.

Recital 22 of the *Framework Directive* acknowledges that NRAs have discretionary powers that reflect the complexity of all the relevant factors that must be assessed when assessing dominance.

(vii) De facto market leaders in innovative markets do not necessarily need to be regulated.

The *Framework Directive* acknowledges that an undertaking might have a substantial market share in a newly emerging relevant market and, therefore, be the *de facto* market leader, it should not be subjected to inappropriate obligations.[119] However, the *Market Analysis and SMP Guidelines* warn that "*foreclosure of such emerging markets by the leading undertaking should be prevented*" (at paragraph 32).

(viii) A market analysis procedure carried out by ICP-ANACOM must take utmost account of the Market Analysis and SMP Guidelines.[120]

Article 16 of the *Framework Directive* obliges NRAs to carry out their market analyses taking utmost account of the *Market Analysis and SMP Guidelines*. This is reaffirmed in Recital 28 of the same Directive. The Commission has indicated – at least informally will

[117] Recital 27 of the *Framework Directive*.

[118] In its *Mannesmann/Hoesch* Decision, for example, the Commission considered that there was strong evidence to suggest that the merged entity would be in a dominant position at the outset in the market for steel gas pipelines. Nevertheless, it cleared the transaction on the grounds that such dominance would only subsist for a limited period owing to the high probability of new market entry. (It should be noted that the Commission did consider future developments over a longer period than would be customary, in light of the exceptional circumstances of this case). Commission Decision of 12 November 1992, Case No. IV/M.222 - *Mannesmann/Hoesch*. The Commission adopted a similar approach more recently in its *Hermes/Sampo/FGB-FCIC* Decision. Although it was determined that the resulting joint venture would control a market share of between 30% and 40%, the Commission cleared the deal on the basis that, inter alia, the joint venture's most important competitor was concluding a deal that was likely to strengthen its ability to compete, as well as the fact that the credit insurance market in Finland was relatively immature. Commission Decision of 19 May 1998, Case No. IV/M.1101 - *Hermes/Sampo/FGB-FCIC.*

[119] Recital 27.

[120] Article 16(1).

take this principle into account when reviewing the draft measures under the notification procedure of Article 7 of the *Framework Directive*.[121]

(ix) The Commission retains a veto over SMP designations.

The Commission has the right, after consulting with the Communications Committee, to require ICP-ANACOM to withdraw a draft measure where it concerns, *inter alia*, the designation or not of an SMP undertaking and where such a decision would affect trade between Member States[122] and would create a barrier to the single market or raise serious doubts as to its compatibility with Community law, particularly the policy objectives of Article 8 of the *Framework Directive*.[123]

(x) SMP designations may be subject to an appeal procedure.

Any undertaking having been designated as having SMP has a right to appeal against the decision to a body that is independent of ICP-ANACOM. Where this body is not judicial in character, its decisions may be the subject of further review by a court or tribunal. In addition, Portugal must ensure that the merits of the case are duly taken into account, and thus not limited to procedural issues.[124]

2.2.3.3 Analysis Of Actual Competitors: Intra-Market Rivalry

2.2.3.3.1 Market concentration

The number of participants competing in a relevant market is a factor to be taken into account in assessing whether a particular firm is dominant in this market. Its significance, however, can vary widely from case to case. For example, the significance of a low number of competitors in a relevant market may be diminished by the presence of strong competitors, well placed to exploit the behaviour of other market participants. Indeed, there is a clear consensus within economics that the presence of a single firm in a relevant market does not necessarily imply that it has market power.

[121] Paragraph 6 states that this factor will be "*an important factor in any assessment by the Commission of the proportionality and legality of proposed decisions by NRAs, taking into account the policy objectives laid down in Article 8 of the Framework Directive*".

[122] The notion of an effect on trade between Member States is likely to cover a broad range of measures. Recital 38 of the *Framework Directive* and paragraph 147 of the *Market Analysis and SMP Guidelines* note that measures could affect trade between Member States where they may have an influence, direct or indirect, actual or potential, on the pattern of trade between Member States in a manner that might create a barrier to the single European market. This term has been interpreted broadly by the Commission in the past, though there is some evidence that the analysis necessary to establish such an effect on trade has been gradually hardened in recent times.

[123] Article 7 of the *Framework Directive*.

[124] Article 4 of the *Framework Directive*.

A simple count of the amount of firms existing in a relevant market does not provide much insight into the competitiveness of the market. The Commission is increasingly using indices in its analysis of market concentrations, *i.e.*, the extent to which a small number of firms account for a large proportion of output. Such indices include, in particular, the concentration ratio and the Herfindahl-Hirschman Index of market concentration ("HHI"). The concentration ratio measures the aggregated market shares of the largest firms in a relevant market. For example, the four firm concentration ratio is basically the sum of the market shares of the four largest participants in a relevant market.

The HHI is used as an additional possible measure of market power or competition amongst firms in a relevant market. It measures market concentration by summing the squares of the individual market shares of all the participants in the relevant market. Where, for example, in a market of four firms with market shares of 35%, 30%, 25% and 10%, the HHI is 1,225 plus 900 plus 625 plus 100, amounting to 2,850. The higher the HHI for a specific market, the more output is concentrated within a small number of firms. In general terms, market concentration can be characterised as low where the HHI is below 1,000, moderate where the HHI is between 1,000 and 1,800 and high where the HHI is greater than 1,800.[125]

2.2.3.3.2 Market shares

While market shares, whether measured in absolute terms and relative to each other, are often used as a proxy for market power, the precise relationship between the latter concept and market shares is not straightforward. Although a significant market share is a precondition for establishing dominance, it does not by itself imply that a firm has a dominant position in the relevant market.[126]

According to established EC case-law,[127] very large market shares - in excess of 50% - are in themselves, save in exceptional circumstances, evidence of the existence of a dominant position. A firm with a market share of less than 25% is unlikely to have a (single) dominant position in a relevant market,[128] while a market share over 40%

[125] See, for example, definition of HHI in the glossary of competition terms on DG COMP's website.

[126] There is a growing awareness of the role of market shares in market analysis. For example, the Commission acknowledged its in Green Paper on the review of the *Merger Regulation* that "*merger analysis today can be less reliant on the rather blunt and imprecise market share test than its was 10 years ago*" (at paragraph 163).

[127] Case C-62/86, *AKZO Chemie BV v. Commission*, [1991] ECR I-3359 (hereinafter "the *AKZO* judgment").

[128] *See* paragraph 75 of the *Market Analysis and SMP Guidelines*, as well as recital 15 of Council Regulation (EEC) No. 4064/89 of 21 December 1989 on the control of concentrations between undertakings, O.J. 1989 L 395/1. Recital 15 states that "[W]*hereas concentrations which, by reason of the limited market share of the undertakings concerned, are not liable to impede effective competition may be presumed to be compatible with the common market; whereas, without prejudice to Articles 85 and 86 of the Treaty, an indication to this effect exists, in particular, where the market share of the*

generally gives rise to dominance concerns in the administrative practice of the Commission.

The temporal aspect associated with market shares is crucial, as changes in market shares over time are likely to provide an insight into the dynamics of the market and may be useful in assessing the nature and extent of competition in the market. In addition, the risks associated with adopting a snapshot view of the affected market are avoided. Volatile market shares may indicate the existence of effective competitive constraints. A firm with a high market share that is rapidly decreasing is generally not commensurate with a finding of dominance.[129] The *Market Analysis and SMP Guidelines* observe that an undertaking with a large market share may be presumed to be in a dominant position if its market share has remained stable over time.[130] However, high and stable market shares do not always indicate that a firm has market power, as such levels will need to be interpreted differently depending on the history by which it came about. In *Hoffman-La Roche*, the ECJ ruled that:

"*A substantial market share as evidence of the existence of a dominant position is not a constant factor and its importance varies from market to market according to the structure of these markets, especially as far as production, supply and demand are concerned*" (at paragraph 40).

Consequently, it is important to understand the logic of linking market shares to market power. The reason why, ignoring for the moment the possibility of market entry, very large market shares are typically equated with a high degree of market power is that smaller competitors may be limited in their ability to increase output sufficiently to constrain the larger undertaking's behaviour. For example, the ability of a small producer of vitamins to serve a large number of customers that might wish to switch supplier if the largest undertaking in the market increased its price may be limited, at least in the short term as, for example, production capacity may not be readily available. By contrast, if smaller competitors can easily serve those customers that wish to switch suppliers, the price increase becomes unprofitable. Thus, spare production capacity on

undertakings concerned does not exceed 25% either in the common market or in a substantial part of it".

[129] Although the Commission adds in its *Market Analysis and SMP Guidelines* that *"[T]he fact that an undertaking is gradually losing market share may well indicate that the market is becoming more competitive, but is does not preclude a finding of significant market power. On the other hand, fluctuating market shares over time may be indicative of a lack of market power in the relevant market*" (at paragraph 75).

[130] At paragraph 75. In the *AKZO* judgment, the ECJ considered AKZO to have had a stable market share of approximately 50% over a three-year period, with AKZO being unable to demonstrate that its share had subsequently decreased.

the part of the smaller undertakings would constrain the behaviour of the larger undertaking.[131]

2.2.3.3.3 Competitive constraints

1. Barriers to expansion: the ability of existing competitors to expand output

Whereas the relative importance of barriers to entry has been widely acknowledged by competition and regulatory authorities, the issue of the ease with which existing competitors may expand their output (*i.e.*, barriers to expansion) has often been neglected, notwithstanding the fact that these twin concepts are based on the same logic. Indeed, it is arguable that barriers to expansion are of more direct relevance in the communications sector, and are more likely to play a significant role in the assessment of dominance in the communications sector. Where barriers to expansion are low, the ability of a competitor to take advantage of an anti-competitive price increase or restriction of output by another is greatly increased. Thus, the likelihood of an undertaking having the ability to act to an appreciable extent independently of competitors and consumers is greatly diminished. The risk is further reduced where switching costs are low, which is a factor discussed in greater detail below.

The *Market Analysis and SMP Guidelines* acknowledge the impact of barriers to expansion on high market shares, stating that "*large market shares can become accurate measurements only on the assumption that competitors are unable to expand their output by sufficient volume to meet the shifting demand resulting from a rival's price increase*" (at footnote 78). The impact of barriers to expansion has also been addressed in EC case-law, though to a limited extent. In the *Agfa/Dupont* Decision*,*[132] for example, the acquisition by Agfa-Gevaert of Dupont's worldwide graphics and press room business would have resulted in Agfa-Gevaert's market share being 2.5 times greater than that of its nearest rival. This led to serious concerns relating to the creation of a dominant position for negative offset printing plates. Nevertheless, the Commission cleared the acquisition on the grounds that, *inter alia*, existing producers could rapidly develop additional production capacity.

As regards the communications sector, for example, it is arguable that the mobile communications sector is characterised by low barriers to expansion given that, once an entry investment has been made in the network, distribution and brand, the marginal cost of providing additional capacity is very low. It should, therefore, make sense for mobile operators to expand output, lower price and capture share from their

[131] A similar constraint on the behaviour of large undertakings is imposed by the threat of entry because customers wishing to switch could easily turn to a new entrant. This is discussed in greater detail in section 2.2.3.3 below.

[132] Commission Decision of 11 February 1998, Case no. IV/M.986, *Agfa/Dupont*.

competitors. This is what the mobile industry has already witnessed in its relatively short history, with fierce competition amongst new and existing market participants for incremental subscriber growth, as well as significant churn between operators. In principle, there is no reason why this pattern should not continue in the 2.5G and 3G environments, where market participants seek to recoup huge spectrum and network rollout costs.

The presence of barriers to expansion in the communications industry was also addressed recently at the Member State level. The Irish High Court recognised the impact of barriers to expansion in *Meridian Communications*, a judgment of April 2001,[133] where it held that even a competitor with a very limited market share could exercise powerful constraints on a competitor with a much larger market share where barriers to expansion are very low. Further, it held that a competitor with a large market share and confronted by low barriers to expansion (such as Esat Digifone, is in this instance) might be in a good position to exert such competitive constraints.

2. Hypothetical monopolist test

The results of an analysis of demand-side and supply-side substitution carried out in the context of a market definition procedure, including the results of such econometric measures as own-price and cross-price elasticities, as well as critical loss and critical elasticity estimates, will be of equal importance for market analysis purposes. Of course, less attention will have been given to the role of potential competition and rivalry between actual competitors during the market definition procedure.

The hypothetical monopolist test considers whether a hypothetical monopolist of a certain set of products or services could profitably impose a small (in the range of 5% to 10%)[134] but permanent relative increase on the competitive price without a sufficient number of users switching to readily available substitutes or to suppliers located elsewhere. The practical application of this test will focus on the effect of customers switching to substitute products or services following a small but significant non-transitory increase in price ("SSNIP"), so-called demand-side substitution, as well as the effect of suppliers commencing or increasing the supply of the products or services whose price rises following a SSNIP, so-called supply-side substitution. These issues have already been considered in detail in section 2.1 above.

[133] Judgment of Mr. Justice O' Higgins of 5 April 2001 in Case 1999 No. 5306p, Meridian Communications and Cellular Three Limited v. Eircell Limited (not yet reported).

[134] It is generally accepted that a price increase of between 5% and 10% might reasonably be expected to make users reconsider their purchasing decisions and so provide an effective level at which to consider the test.

3. Network effects

Certain markets are characterised by network effects, which arise when the value of a product or service to a user increases with the number of other users using the same product or service. As a result, incumbent operators and/or service providers with an established user base have an automatic advantage over later entrants. Markets characterised by network effects may be subject to "tipping", *i.e.*, demand-side economies of scale generate positive feedback effects ("success breeds success") as more users purchase a product or service, thereby ultimately tipping the balance of market power in favour of one firm ("snowballing").[135]

The presence of network externalities does not necessarily imply the existence of market power. Indeed, network externalities can encourage effective competition, as firms have an incentive to compete for customers, in light of the value they contribute to the overall network. Economic literature acknowledges that the use of network externalities to affect market structure by creating a bottleneck requires three basic conditions, namely:

- the networks use proprietary standards;
- no customer is required to purchase its services from more than one proprietary network; and
- customers are captive of the network to which they subscribe and there exist considerable switching costs.

4. Information asymmetries

The balance of information held by users and service providers and/or network operators can affect the competitiveness of a relevant communications market. While advertising and other initiatives promoting awareness are likely to address most information asymmetries, it is not always possible to eliminate them. For example, many regulators have thus far determined that, regardless of callers' awareness of the overall costs of calling mobile networks, the degree of price sensitivity of called parties is insufficient to constrain mobile termination rates. In this regard, the Australian Competition and Consumer Commission ("ACCC") concluded that *"[C]onsumer ignorance [in Australia] means that the mobile carrier can increase the access price for GSM termination without feeling the full effect of the increase. This is because an end*

[135] *See*, for example, Commission Decision of 10 July 2002, Case COMP/M.2803 – *Telia/Sonera*; Commission Decision of 28 June 2000, Case No. COMP/M.1741 – *MCI WorldCom/Sprint*, on appeal to the CFI; Commission Decision of 12 April 2000, COMP/M.1795 – *Vodafone Airtouch/Mannesmann*; Commission Decision of 13 October 1999, Case no. IV/M.1439 - *Telia/Telenor*.

user calling can do no better than base his/her calling decision on estimates of the average access price for GSM termination".[136]

5. Measuring market shares

In order to calculate market shares, ICP-ANACOM may use information from a variety of sources, including from the market participants, customers, trade associations, and market research reports. Market shares can be measured in terms of revenues, volumes, production capacities or inputs, depending on the markets concerned and the information available.

6. Additional evidence

While an assessment of whether a firm occupies a (single) dominant position in a relevant market generally focuses on the latter's structural characteristics in the first instance, it should also take account of additional characteristics, including:

- *Price rivalry*: An assessment of dominance may be expected to take account of whether the firms within a relevant market competed intensely on price in an effort to maintain and expand their user bases. This may be reflected in substantial price reductions over a period of time, including evidence of "tit-for-tat" price reductions and of the convergence of prices over time (thereby preventing the sustainability of large gaps in the relative prices of products or services). An NRA will also identify the price setters and takers in a relevant market. In *Hoffman-La Roche v. Commission*, the ECJ noted that "*the fact that an undertaking is compelled by the pressure of its competitors' price reductions to lower its own prices is in general incompatible with the independent conduct which is the hallmark of a dominant position*" (at paragraph 71).

- *Additional factors:* Additional factors include: the number and scale of innovations, as well as technological advantages or superiority; market growth and user switching; the characteristics of the market leader; persistent and excessive profitability; vertical integration; control of infrastructure not easily duplicated; and the presence of a highly developed distribution and sales network. The significance of each of these factors may differ amongst the Member States.

[136] *See*, Pricing Methodology for the GSM Termination Service, Final Report, ACCC, July 2001. This view is supported by the 1998 Reports of the Monopolies and Mergers Commission in the United Kingdom concerning the charges made by Cellnet and Vodafone for terminating fixed-to-mobile calls, as well as a report by OVUM on the regulation of mobile operators (see, Regulating Mobile Operators – The Road to Effective Competition, OVUM, Volume 3: GSM termination rates, 2000). In addition, Oftel in its 2001 Statement on Calls to Mobiles concluded that *"[T]here is little evidence to show that consumers are well informed about the price to call any particular [mobile] network*".

7. The role of current SMP designations in future market analyses

The designation of SMP under the current regulatory framework is of no significance in determining whether a firm is dominant in the relevant market. This is because SMP is defined currently on the basis of: relevant markets defined other than according to competition rules; a market share test on which excessive reliance is placed; and a set of factors that would not normally be critical to the assessment of market power.

2.2.3.4 Analysis Of Potential Competition: Barriers To Entry

The threat of market entry, either on a long-term or “hit and run” basis, is amongst the main competitive constraints on incumbent firms in a relevant market, where such entry is shown to be highly probable, timely and appreciable. In this regard, ICP-ANACOM will have regard to the past and future evolution of the marketplace. As indicated in section 2.1 above, it is not always simple to distinguish supply-side substitution from potential market entry. The difference is typically one of timing and/or investment. The Commission notes in its *Market Definition Notice* that when supply-side substitution would entail the need to adjust significantly existing tangible and intangible assets, additional investments, strategic decisions or time delays, it may be considered as market entry.

The threat of market entry will be affected by the presence of barriers to entry. Barriers to entry concern the difficulties faced by new arrivals in gaining access to a relevant market, which by their nature may give incumbent firms a decisive advantage over new entrants. Where barriers to entry are low, the likelihood of a competitor having the ability to take advantage of an anti-competitive price increase or restriction of output with impunity is greatly diminished. Thus, barriers to entry impinge on the ability of a competitor to act to an appreciable extent independently of competitors.

The likelihood of market entry, as well as - importantly - the timescale within which such entry is likely to take place and the scale of such entry, will be affected by, *inter alia,* the commercial and financial risks associated with market entry and the presence of legal or technical barriers, as well as regulatory barriers. (Legal, technical and regulatory barriers to entry are discussed in detail in section 2.1.5.1 above). Additional factors include economies of scope and scale, production costs and the allocation of production facilities, break-even estimates, strategic barriers, particularly in relation to customer bases, innovation rates, evidence of historical market entry, exit and sunk costs *etc.* According to the Commission,[137] the appropriate time period should depend on the characteristics and dynamics of the market, as well as on the specific characteristics of

[137] Draft Commission Notice on the appraisal of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (“the draft Notice on the appraisal of horizontal mergers”), O.J. 2002 C 331/8.

the potential entrants. In its *Alcoa/Reynolds* Decision,[138] for example, the Commission considered that two so-called "greenfield" projects for the establishment of new alumina refineries would not constitute serious threats to the market power of the proposed merged entity in the merchant market for smelter grade alumina. In particular, the first project would only start production within five years at the earliest, which was considered by the Commission to be clearly outside the timeframe used by it to assess the impact of potential competition. The second project was cloaked in too much uncertainty.

2.2.3.5 Analysis Of Purchasing Power

The competitive pressure on a firm is not only exercised by its competitors, but can also be applied by a firm's customers at the wholesale and retail levels. According to the Commission, buyer power in this context should be understood as "*the ability of large customers within a reasonable timeframe to resort to credible alternatives if the supplier decides to increase prices or to deteriorate the conditions of delivery*" (at paragraph 76).[139] In its *Pirelli/BICC* Decision,[140] for example, the Commission determined that there was insufficient evidence to conclude that the operation would result in the creation of a dominant position of Pirelli/BICC in the market for the supply of HV/EHV power cables in the Community, because, *inter alia*, the demand-side was dominated by large sophisticated customers. The large volumes purchased by these customers accounted for a significant share of Pirelli's and BICC's turnover, while their requirements were purchased by bidding processes. Competitors would bid aggressively for each contract, due to its value, the infrequent nature of such contracts and the fact that contracts were typically awarded to a single successful bidder. It is more likely that large and sophisticated users will possess purchasing power than will smaller users in fragmented markets. For example, such may be the case in relation to the provision of fixed and mobile communications services to multinational and large corporate users.

A purchaser's ability to exercise its purchasing power will be dependant upon, for example:

- its size and commercial significance to its suppliers;
- the presence of alternative suppliers and/or its ability to sponsor upstream market entry/expansion (through purchasing commitments);
- the absence of switching costs;

[138] Commission Decision of 3 March 2000, Case COMP/M.1693 – *Alcoa/Reynolds*.
[139] The draft Notice on the appraisal of horizontal mergers.
[140] Commission Decision of 19 July 2000, Case IV/M.1882 – *Pirelli/BICC*.

- the credibility of the purchaser's threat;
- the extent to which it can impose costs on suppliers (by, for example, delaying purchases); and, as a related factor,
- its incentive to exercise its purchasing power.

2.2.4 Identifying Collective SMP

2.2.4.1 Introduction

In addition to the definition of SMP, Article 14 of the *Framework Directive* provides guidance on the assessment of joint dominance. Article 14(2), second paragraph, requires that the assessment of collective dominance be carried out *"in accordance with Community law and take utmost account of the [Market Analysis and SMP Guidelines]"*[141] and outlines the criteria to be used in making such an assessment in a Annex II, which states that:

> "*[T]wo or more undertakings can be found to be in a joint dominant position within the meaning of Article 14 if, even in the absence of structural or other links between them, they operate in a market the structure of which is considered to be conducive to coordinated effects. Without prejudice to the case law of the Court of Justice on joint dominance, this is likely to be the case where the market satisfies a number of appropriate characteristics, in particular in terms of market concentration, transparency and other characteristics …".*[142]

Thus, Annex II provides for a collective dominance test centred on whether the structural characteristics of the relevant market encourage parallel or aligned anti-competitive behaviour.[143]The *SMP and Market Analysis Guidelines* effectively align the collective dominance test in Annex II of the *Framework Directive* with the collective dominance test used for the purposes of the *Merger Regulation*, namely whether the

[141] Article 14(2), paragraph 2.

[142] The "other characteristics" mentioned are: a mature market; stagnant or moderate growth on the demand side; low elasticity of demand; an homogeneous product; similar cost structures; similar market shares; a lack of technical innovation, mature technology; an absence of excess capacity; high barriers to entry; a lack of countervailing buying power; a lack of potential competition; various kinds of informal or other links between the undertakings concerned; retaliatory mechanisms; and a lack or reduced scope for price competition. Annex II clearly provides that this list is by no means exhaustive or cumulative, being rather for illustrative purposes of the sorts of evidence that could be used to support assertions concerning the existence of collective dominance.

[143] Recital 26 of the *Framework Directive* considers that a relevant market whose structure is conducive to coordinated effects means a relevant market that "*encourages parallel or aligned anti-competitive behaviour on the market*". The *Market Analysis and SMP Guidelines* provide a similar clarification (at footnote 106).

structure of the oligopolistic market *"alone is conducive to co-ordinated effects*" (at paragraphs 94 and 96).[144]

The new regulatory package draws on the methodologies for the application of the dominance test under Article 82 EC and the *Merger Regulation*, though its own application of the dominance test remains distinct. This issue is discussed in point (i) of section 2.2.4.2 above. In addition, Annex II of the *Framework Directive* and the *SMP and Market Analysis Guidelines* appear not to require an NRA to demonstrate that firms enjoy a collective dominant position in the relevant market, as reflected in Article 14 of the *Framework Directive*. Indeed, the focus of the assessment in the Annex and these Guidelines has shifted from the market position of the undertaking(s) concerned at the time of the assessment of SMP to the structure of the market in question and prospective/future dominance, *i.e.*, the likelihood of dominance. Such a shift is more akin to the application of the collective dominance test under the *Merger Regulation*, which is concerned with the *creation* or strengthening of an individual or collectively dominant position. In other words, the Annex and *Market Analysis and SMP Guidelines* appear to have extended the time period over which SMP is assessed.

The study team examines below the application of the concept of oligopolistic dominance under the *Merger Regulation*. This is followed by an examination of the application of the concept of collective dominance under Article 82 EC. This is for the sake of completeness and to provide ICP-ANACOM with guidance on whether there exists a higher burden of proof for a finding of dominance under Article 82 EC, especially due to the temporal aspect of the assessment.

2.2.4.2 Collective Dominance Under The Merger Regulation

2.2.4.2.1 Overview of the administrative practice

The past decade has witnessed a growing tendency for the Commission to apply the concept of oligopolistic dominance in its analysis of concentrations under the *Merger Regulation.* The Commission first relied formally on the concept to extract undertakings from the notifying parties in the *Nestle/Perrier* case in July 1992,[145] and eventually to

[144] In the wake of the *Airtours* judgment, the Guidelines add that an NRA should analyse whether such form of coordination is sustainable. According to the Commission, the co-ordination will considered to be sustainable where: (i) none "*of the oligopolists has the incentive to deviate from the co-ordinated outcome, considering the ability and incentives of the non-deviators to retaliate*" (at paragraph 96); and (ii) no "*buyers/fringe competitors/potential entrants have the ability and incentive to challenge any anti-competitive co-ordinated outcome*" (at paragraph 96).

[145] *See*, Commission Decision of 22 July 1992, Case No. IV/M.190 – *Nestle/Perrier* ("the *Nestle/Perrier* Decision"). The Commission determined that the notified concentration between Nestle and Perrier would have the effect of creating a duopolistic dominant position allowing Nestle and BSN, the third major supplier, to jointly maximise profits by avoiding competition among themselves on the French bottled source waters market and acting to a large extent independently of their customers and

prohibit a notified merger in the *Gencor/Lonrho* case in April 1996.[146] The Commission's thinking on the subject has been further refined as a result of several commissioned studies.[147] Further, and most importantly, recent judgments of the European Courts have sought to clarify several areas of legal and economic complexity in the application of the concept of oligopolistic dominance,[148] including the recent CFI judgment in the appeal of the *Airtours* Decision.

2.2.4.2.2 Legal standard for collective dominance in EU merger analysis

The *Merger Regulation* is concerned with whether a concentration creates or strengthens a dominant position, either individually or collectively, as a result of which effective competition would be significantly impeded in the common market or in a substantial part of it. This legal threshold is diluted to the level of "serious doubts" test where the Commission's initial one-month Phase I investigation. (This is an important factor for ICP-ANACOM to bear in mind when considering the administrative practice of the Commission). A review of the case-law of the European Courts and the administrative practice of the Commission provides a clear analytical framework for the assessment of collective dominance under the *Merger Regulation*, including setting out the conditions that must be satisfied. The principal steps relate to:

competitors. The Commission has used the concept of collective dominance to extract undertakings from the parties in several subsequent merger cases.

[146] *See,* Commission Decision of 21 December 1989, Case No. IV/M.619 - *Gencor/Lonrho,* appealed in Case T-102/96, *Gencor Ltd. v. Commission* ("the *Gencor/Lonrho* judgment"). This transaction would have merged the platinum activities of Implats (owned by Gencor) and Eastplats/Westplats (owned by Lonhro's LPD), thereby reducing the number of producers in South Africa from three to two. The Commission prohibited the notified concentration because it would have led to the creation of a dominant duopolistic position between Amplats and new Implats/LPD in the world platinum and rhodium market, as a result of which effective competition would have been significantly impeded in the common market. The Commission Decision was appealed to the CFI, where the application was subsequently dismissed. The Commission prohibited a notified concentration on a similar basis in the *Airtours/First Choice* decision, though this decision was subsequently annulled by the CFI. *See*, Commission Decision of 22 September 1999, Case IV/M.1524 – *Airtours/First Choice,* ("the *Airtours* Decision"), appealed and annulled in Case T-342/99, *Airtours Plc. v. Commission* ("the *Airtours* judgment").

[147] *See*, in particular, the 1987 study on "*Collective Dominance – The Concept and its Applicability to Competition Policy*" by Kantzenbach and Kruse ("Kantzenbach 1987") and the 1995 study on "*New Industrial Economics and Experiences from European Merger Control – New Lessons about Collective Dominance?*" by Kantzenbach, Kottmann and Kruger ("Kantzenbach 1995"). A more recent study by European Economics is the *Study on Assessment Criteria for Distinguishing between Competitive and Dominant Oligopolies in Merger Control*, Final Report for the European Commission Enterprise Directorate General, Europe Economics, May 2001.

[148] For, example, the ECJ's judgment in the *Kali&Salz* case eliminated the uncertainty concerning the applicability of the *EC Merger Regulation* to oligopolistic dominance, while the judgment of the CFI in the *Gencor/Lonrho* case determined that the "structural links" initially referred to the Court's judgment in the *Flat Glass* case did not require that such links must exist in order for a finding of collective dominance to be made. *See*, Commission Decision of 14 December 1993, Case No. IV/M.308 – *Kali + Salz/MdK/Treuhand*, appealed in Joined Cases C-68/94 and C-30/95, *France v. Commission* and *SCPA and EMC v. Commission* ("the *Kali&Salz* judgment").

- *The Degree of Concentration*: whether a small number of undertakings account for a large share of the relevant market without any undertaking being in an individual dominant position.
- *Incentive for Co-ordination:* whether the undertakings concerned would have an incentive to cease competing with each other were the merger to proceed, including whether the characteristics of the market makes it conducive to coordination and the establishment of terms of coordination.
- *Credibility of Co-ordination*: where such an incentive exists, the CFI and the Commission acknowledge that the following basic conditions must be fulfilled for coordination to be sustainable,[149] namely:
  - the coordinating firms must be able to *monitor* to a sufficient degree whether the terms of coordination are being adhered to, that is to detect whether any firm in the group is deviating from the terms of coordination; and
  - there must be credible and sufficiently severe *deterrent mechanisms* that can be activated in case deviation is detected.
- *Market Constraints*: whether, in any event, the actions of *outsiders*, such as actual and potential competitors, as well as customers, would not be able to jeopardise the results expected from the coordination.

Each of these steps is discussed in detail below.

2.2.4.2.3 Degree of market concentration

A relevant market characterised by many market participants is unlikely to give rise to collective dominance concerns. Accordingly, the Commission analyses the degree of market concentration at the outset to determine whether it is at such a level as to preclude automatically the existence of a collectively dominant position. The ECJ and the Commission, however, have acknowledged that a high level of concentration is not of itself decisive as regards the existence of oligopolistic dominance,[150] or the fact that a cosmetic change in the market structure results from a reduction in the number of market participants.[151] Nevertheless, the European Courts and the Commission have provided guidance as to the significance of the various degrees of market concentration. In the case of a duopoly and in the absence of evidence to the contrary, the CFI in its *Gencor/Lonrho* judgment was prepared to hold that a large market share

[149] *See*, in particular, the *Airtours* judgment, the *Market Analysis and SMP Guidelines* and the draft Notice on the appraisal of horizontal mergers.

[150] *See*, *Kali&Salz* judgment and the *Price Waterhouse/Coopers & Lybrand* Decision.

[151] *See*, for example, the *Nestle/Perrier* Decision and the *Kali&Salz* judgment.

provides a "strong" indication of the existence of collective dominance.[152] [153] The existence of a considerable gap in market shares between the alleged dominant oligopolists and their rivals would tend to add weight to such a position.[154]

[152] The Court based its findings in this regard on the AKZO judgment, where it was established that a market share in excess of 50% provides a rebuttable presumption of an individual dominant position. However, it is important in the context of the communications sector to understand the reasoning on which this principle is founded. In this regard, see the discussion on market shares in section 2.2.3.2 above.

[153] The CFI stated that oligopolistic markets in which one of the jointly dominant undertakings has a market share of less than 25% are "relatively rare". It added that "*market structures which encourage oligopolistic conduct most are those in which two, three or four suppliers each hold approximately the same market share, for example two suppliers each holding 40% of the market, three suppliers each holding between 25% and 30% of the market, or four suppliers each holding approximately 25% of the market*" (at paragraph 134).

[154] In its *Nestle/Perrier* Decision, the Commission determined that a high degree of concentration would characterise the French water market following the merger given that the merged entity and its closest rival, BSN, would hold over 82% of the total market by value and 75% by volume. Indeed, it concluded that the reduction from three to only two national suppliers would make anti-competitive parallel behaviour "much easier".

In its *Kali&Salz* judgment, the ECJ, overruling the Commission, judged that a market share of 60% divided between two undertakings (23% and 37% respectively) could not of itself point conclusively to the existence of a collective dominant position. The Court also acknowledged that a mere quantitative increase in the market shares held by the parties was not in itself sufficient to constitute the creation of a collective dominant position.

In its *Price Waterhouse/Coopers and Lybrand* Decision, the Commission was of the preliminary view that the combined market shares of the notified merged entity ("PW/C&L") and the proposed merged entity between KPMG and Ernst & Young ("E&Y") would have been substantial. In addition, these two merged entities would have been the two largest undertakings in their relevant markets in all but two Member States, with very significant gaps between them and their nearest competitors. This level of concentration did not materialise, however, as KPMG and E&Y terminated their merger plans during the Commission investigation. The Commission then determined that PW/C&L, even though it was the largest competitor in a post-merger market in every EU Member State with the exception of Austria, would not hold a duopolistic dominant position with its nearest competitor. This decision was based on the fact that: (i) the identity of the second largest firm varied considerably as between Member States; (ii) the close proximity between the post-merger market shares of the second and third suppliers, being over 10% in only two Member States, made it impractical for the merged entity to pursue a strategy of duopolistic dominance, which would otherwise require it to coerce or squeeze out the third largest and smaller firms; and (iii) it would not be feasible or manageable for the merged entity to adopt parallel behaviour with different market leaders in each Member State (discussed below). (This reasoning employed by the Commission is somewhat unclear in this respect, given that the Commission considered the relevant geographic market for the provision of audit and accounting services to be national in nature (in other words, there is nothing in principle to prevent a finding of oligopolistic dominance between different entities, if the other factual predicates are satisfied, if the geographic markets themselves are fragmented).

In its *Price Waterhouse/Coopers and Lybrand* Decision, the Commission stated that *"[F]rom a general viewpoint, collective dominance involving more than three or four suppliers is unlikely simply because of the complexity of the interrelationships involved, and the consequent temptation to deviate: such a situation is unstable and untenable in the long term*" (at paragraph 103).

In its *Gencor/Lonhro* judgment, the CFI upheld the Commission's conclusion that the merged entity and Amplats would hold a duopolistic dominant position on the platinum group metal market having regard to, *inter alia*, the allocation of their market shares and the gap in market shares which would open up between the duopolists and remaining market participants. The Commission estimated that the merged entity and Amplats would respectively control 30% to 35% of the platinum market and would together control approximately 80% of the world's platinum reserves. The Russian and the North American producers were said to hold 22% and 5% market shares respectively, while at the same time controlling approximately 10% and 1% of the world's platinum reserves. The merged entity's and Amplats' market shares were each likely to rise to approximately 40% following the expected disposal of the Russian stocks over a two year timeframe.

By contrast, the Commission was satisfied that risks of oligopolistic dominance were unlikely to occur in *Dupont/Hoechst/Roberts,* even though the leading two market players would have controlled more

Regardless of any presumption which might flow from the relative market shares held by the duopolists, the CFI judged that the applicants in its *Gencor/Lonrho* judgment could not rely on a comparison of market shares held by the oligopolists and their competitors and the market shares of market participants taken into account by the Commission in previous cases, unless the markets being compared had “fundamentally similar characteristics”. In this instance, the applicants had wrongly sought to draw any meaningful comparison between the market shares of the mineral water market (in *Nestle/Perrier*) and/or the potash market (in *Kali&Salz*) compared with the platinum and rhodium markets in the case at hand. When analysing market shares in the context of a merger review, it should also be borne in mind that the Commission has downplayed their significance to an extent in its recent Merger Review.[155]

The Commission is also increasingly using indices other than market shares to assist it in its forward-looking analysis of notified concentrations, particularly to calculate the actual change in the level of concentration in a post-merger marketplace, as well as the increase resulting from the merger.[156] Such indices include, in particular, the HHI that effectively creates a “safe-haven” rule. Concentration ratios and the HHI are discussed in section 2.2.3.3 above.

2.2.4.2.4 The incentive for co-ordination: market characteristics conducive to co-ordinated effects

A high market share divided amongst two or more participants in the relevant market cannot of itself point conclusively to the existence of a collective dominant position. Rather, certain additional market characteristics and factors must be taken into account by the Commission when investigating the ability and incentive of undertakings to

than 60% of the post-merger paint markets for primer-surfacer, basecoat and clearcoat, while the three leading market participants would have accounted for 80% of these markets. The Commission balanced the existence of high market shares with the other characteristics of the market, in particular the purchasing power of car manufacturers and technological developments (discussed below).

In its *Danish Crown/Vestjyske Slagterier* Decision, the Commission concluded that the proposed merger would result in a duopolistic market structure, with the merged entity and its nearest competitor, Steff-Houlberg, controlling approximately 40% and 30% respectively of the Danish market for fresh pork sold through supermarkets. The merger was cleared following the submission of undertakings by the parties.

In its *Otto Versand/Freemans* Decision, the Commission dismissed allegations that the fact that the three leading firms, GUS, Littlewoods and the merged entity, would control 43.9%, 25.6% and 22.7% of the agency mail order market in the United Kingdom following the proposed operation (*i.e.*, over 90% of the market between the top three market participants). The Commission noted that, although the merged entity would move closer in market share to the second player, Littlewoods, there remained almost a 20% gap between the market shares of the second player and the market leader.

[155] The Commission notes that merger assessment today can be less reliant on “*the rather blunt and imprecise market share test than it was 10 years ago*” (at paragraph 163). Green Paper on the Review of Council Regulation (EEC) No. 4064/89, COM(2001)745/6 final.

[156] In its *Enso/Stora* Decision, for example, the Commission noted that the notified merger would lead to an increase in the HHI of 313 points, which it considered to be “a significant change”. Nevertheless, the Commission cleared the operation “on balance”. The Commission did not refer to the HHI for the post-merger market concentration in its Decision.

collude.[157] In this regard, it is important to conduct an analysis of competition prior to the notification, *i.e.*, past competition. The investigation will focus on whether the alteration of the market structure following the proposed merger would be such that each member of the alleged dominant oligopoly, as it becomes aware of common interests, would consider it possible, economically rational, and hence profitable, to adopt on a lasting basis a course of action on the market aimed at selling at above competitive prices, without having to enter into an agreement or resort to a concerted practice and without any actual or potential competitors, let alone customers or consumers, being able to react effectively.[158]

In its *Kali&Salz* judgment, the ECJ acknowledged that the *EC Merger Regulation* confers on the Commission a margin of discretion,[159] especially with respect to assessments of an economic nature. Thus, there is no exhaustive list of market characteristics that lead to the identification of a position of oligopolistic dominance, as particular characteristics will be limited to specific cases and/or industrial sectors.[160] Although past Commission practice is certainly not a mandatory reference point which the Commission must follow with the force of legal precedent in each case, but can be adapted according to the circumstances of each individual case, Advocate General Tesauro in his Opinion in *Kali&Salz* recognised that administrative precedent cannot be disregarded.[161]

[157] This is consistent with the established competition law principle that the existence of a dominant position may derive from several factors which, when taken separately, are not necessarily decisive. In addition, such a dynamic analysis is acknowledged by the Commission study on collective dominance prepared by Kantzenach, Kottmann and Kruger, which notes that *"[n]ot until all levels and factors are viewed in combination can an adequate picture be obtained of the likelihood of collusion in the specific market under examination*."

[158] This language reflects that used by the CFI in paragraph 61 of its *Airtours* judgment.

[159] *See*, in particular, Article 2 of the *Merger Regulation*.

[160] This position is also reflected in the views of economists. For example, the authors of the Kantzenbach 1995 Study noted that *"[A]s regards the empirical evidence of collective market dominance, the study concluded that cross-sectoral analysis in particular did not have any great relevance in indicating collusion when price was the competitive parameter under examination. It is quite clear that this is a phenomenon which, though it does not occur frequently across the spectrum of economic activity, can nevertheless by very significant in particular cases. The implication for practical competition policy, especially the application of European merger control, is that the factors inhibiting or encouraging collusion have to be determined on a case-by-case or sector-by-sector basis*".
In the *Price Waterhouse/Coopers & Lybrand* case, for example, the Commission determined that the risk of the creation of oligopolistic dominance arose in large part from the existence of the general characteristics noted above, but also emphasised that the risk was further enhanced by an additional element which was specific to the Big Six audit and accounting market for large companies, namely, that relationships between auditors and clients tend to be long-term.

[161] Advocate General Tesauro noted that "*..the Commission's practice, while unquestionably complex and not free from contradictions, may nevertheless prove to be a useful instrument for identifying possible inconsistencies and contradictions in the Commission's decision and in its defence and thus, by the same token, show conclusively whether or not the criteria used in this case were correct. If the issue is viewed in those terms, it seems to me that the Commission is not justified in claiming that there is no need to take account of the criteria and appraisals contained in decisions subsequent to the one at issue in this case*".

While the Commission is granted a margin of discretion in carrying out its analysis, the European Court has provided important guidance as to the level of economic analysis required to establish the risk of oligopolistic dominance. It has indicated that it will not accept a static economic analysis that ignores dynamic effects and is not based on a convincing and rigorous analysis of all relevant micro-economic factors.[162] Thus, despite the identification of a number of the above-listed factors in any assessment of collective dominance, the Commission (and the European Courts) has been at pains in its recent administrative practice to stress that a finding of collective dominance is not a mechanical process of "ticking the boxes".

In addition to an assessment of market concentration, the Commission will have regard to the stability of market conditions, especially by reference to factors such as:

- the maturity of the market;[163] and
- technological innovation.[164]

[162] *See*, in particular, the *Kali&Salz* judgment, where the Court focused on the dynamic factors of the market characteristics rather than the static analysis followed by the Commission. The Court annulled the Commission Decision as, inter alia, it did not appear to be sufficiently well founded. The requirement for a strong burden of proof was emphasised by the Commission in the *Price Waterhouse/Coopers & Lybrand* Decision. In the latter case, the Commission acknowledged that the *Kali&Salz* judgment had placed a very strong burden of proof on the Commission where it determines a market to be the subject of oligopolistic dominance. In particular, the Commission recognised in its *Price Waterhouse/Coopers and Lybrand* Decision that the judgment of the CFI in *Kali&Salz* "*implies that evidence of the lack of effective competition between a group of suppliers held to be collectively dominant must be very strong, as must evidence of the weakness of competitive pressure from other suppliers*" (at paragraph 105).

[163] A market characterised by slow growth is considered to discourage new entry or aggressive moves to capture growth in the market, and is therefore unlikely to provide high incentives for competition. In the *Nestle/Perrier* Decision, for example, it was determined that the French bottled water market was highly concentrated and subject to a strong decline in demand (having only achieved a growth rate of less than 0.9% the previous year). In the *Kali&Salz* judgment, the demand for potash was also in decline, as evidenced by a fall of nearly 30% in Europe from 1998 to 1993. The ECJ noted that a declining market is, in principle, generally considered to promote competition between undertakings, though the Commission argued in *Gencor/Lonrho* that a market characterised by slow growth does not encourage new entrants or vigorous competition. While the Commission found no conclusive evidence of oligopolistic dominance in its *Price Waterhouse/Coopers & Lybrand* Decision, the Commission emphasised that demand for the provision of audit and accounting services to large companies was, at best, growing slowly and demonstrated very slow growth when compared to other services. According to the CFI in its *Gencor/Lonrho* judgment, the fact that demand was forecast to grow on average at a moderate rate of 3% over a five-year period was indicative of a fairly stable market and was unlikely to encourage market entry. In the *Danish Crown/Vestjyske Slagterier* Decision, the fact that the pork market was a mature market contributed to the Commission's finding of duopolistic dominance. The Commission did, however, acknowledge that mature market might still be competitive in some circumstances.

[164] The Commission acknowledges that undertakings, in the normal course of their business, constantly strive to improve their costs by introducing new work methods and new production technologies. These technological developments are said to provide a "powerful" opportunity for competitors to quickly erode existing market positions. Nevertheless, there may still be no incentive to compete, despite the evidence of technological innovation. In the *Danish Crown/Vestjyske Slagterier* Decision the Commission recognised that new technologies were being introduced on a continuous basis in the slaughtering industry, as is normal in many industries. Overall, the technology used in slaughterhouses was mature. To the extent that changes occurred, it was "*only gradual and relatively slow compared to for example high tech industries such as computers*" (at paragraph 176). The fact

In addition, the Commission will examine the role of “facilitating factors” permitting competitors to co-ordinate their behaviour, including:

- repeated interactions between firms, as such interactions facilitate market transparency and deterrent mechanisms;
- the transparency of the marketplace, particularly as regards pricing;
- the homogeneity of products/services;[165]
- the existence of structural links between competitors;[166]

that many technological improvements would be inevitably shared amongst the various members of the Danish slaughtering industry further downplayed the significance of any new technological developments in its oligopoly assessment.

In the *Nestle/Perrier* Decision, however, R&D activities or product innovation were of minor importance in the water industry. The Commission compared Nestle’s total expenditure on R&D with respect to waters and compared it to the 15 to 20% of turnover expended on R&D by typically innovative industries. In addition, the bottling process, which was the basic manufacturing process of the parties, was already well-established and the parties had not indicated any major changes expected in this respect in the near future. Similarly, in its *Price Waterhouse/Coopers & Lybrand* Decision, the Commission considered the methodology of audit and accounting services to be the subject of slow change and characterised by a low rate of innovation. However, the Commission determined overall that there was inconclusive evidence for a finding of oligopolistic dominance. In *Gencor/Lonrho*, the slow pace of technological developments and the lack of any major technological breakthrough in the platinum mining and refining industry resulted in technology being an unlikely source of intense competition. This conclusion was unaffected by additional non-technical aspects of competitive advantage, namely, the differences in work methods of competitors and the fact that LPD, a party to the merger, was recognised as the most efficient and advanced South African mine operator which had forced its competitors to reduce their cost positions. The continuous innovative nature of the paint coatings, in particular with respect to their quality and environmental characteristics, also contributed to satisfying the Commission’s concerns regarding oligopolistic dominance in the *Dupont/Hoechst/Herberts* Decision. Each supplier was required, for example, to carry out significant R&D to develop new colours.

[165] The nature of the product or service will also be taken into consideration, particularly with a view to determining whether it is homogeneous. For example, in examining oligopolistic dominance amongst the five major float glass producers in the Community in its *Pilkington-Techint/SIV* Decision, the Commission noted that clear float glass was a homogeneous, commodity-type product, with approximately 70% of it being subject to further processing. Nevertheless, R&D was particularly important, as manufacturers sought to differentiate themselves with value-added products. The Commission noted that such product innovation led to product differentiation that complicated the possible emergence of anti-competitive parallel behaviour. However, the Commission did not establish the existence of oligopolistic dominance in *Price Waterhouse/Coopers & Lybrand*, despite having considered audit services to be relatively homogenous, insofar that any audit performed involves standard checks, analyses, reports and other relevant elements as stipulated by national regulations and institutional self-regulations. In its *Dupont/Hoechst/Herberts* Decision, the Commission’s collective dominance concerns were downplayed by the fact that paint coatings were diversified and heterogeneous products, in a constant state of innovation, particularly as regards their quality and environmental characteristics.

[166] Much confusion reigned over whether, in the context of Article 82 EC, the existence of structural links between two or more undertakings are required. It is now an accepted principle in the case-law that it is possible to demonstrate oligopolistic dominance in the absence of such links. As is reflected in an analysis of the case-law of the European Courts and the administrative practice of the Commission, however, the presence of such links is more than likely to be cited in support of a finding of collective dominance.

In its *Kali& Salz* judgment, the ECJ held that the structural links between Kali&Salz and SCPA had been shown to be less substantial than alleged by the Commission in its attempt to support a finding of a collective dominant position between these two undertakings. Although the Commission found no

- the existence of symmetries between competitors,[167] particularly as regards:
  - cost structures;[168]

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oligopolistic dominance in *Price Waterhouse/Coopers & Lybrand*, it highlighted the existence of structural links in the audit and accounting sector, which was self-regulated by institutions whose membership included the large audit firms. In particular, the Commission noted that the alleged oligopoly members were in a position to use their influence in these institutions to develop a system of standards which could in practice contribute to oligopolistic behaviour. The reasoning adopted by the Commission in this regard should be contrasted with the approach under Article 82 EC adopted by Advocate General Ruiz-Jarabo Colomer in Joined Cases C-215/96 and C-216/96, *Bagnasco and Others v. Banca Populare di Novara* (discussed in section 2.2.4.2 below).

In the *Gencor/Lonrho* judgment, for example, structural links between the parties were found by the Commission to exist as a result of the fact that: (i) Anglo-American ("AAC"), the parent of oligopoly member Amplats, also controlled DeBeers, which entered into a diamond cartel with the Russian producers; (ii) Gencor and ACC, via their subsidiaries, were shareholders in the same stainless steel joint venture in South Africa; and (iii) ACC and Gencor, indirectly through one of its parents, held an interest of "*considerable influence*" in Lonrho. While the Commission acknowledged that the stainless steel joint venture was outside of the platinum group metals business, it nonetheless considered it to demonstrate the types of close links that exist between oligopolists. In addition, the Commission noted that the members of the oligopoly had multi-market contacts.

In its *Danish Crown/Vestjyske Slagterier* Decision, the structural links between the merged entity's nearest competitor, Steff-Houlberg, and the merged entity on the export markets contributed to the Commission's finding of duopolistic dominance.

[167] It is widely acknowledged by both economists and competition regulators alike that the existence of significant asymmetries between market participants will reduce the likelihood of explicit or tacit collusion, as these are likely to give rise to conflicting commercial interests (*See*, for example, the Kantzenbach 1995 study, at page 58). Conversely, the Commission also acknowledges that similarity in the size and nature of the undertakings acts as a clear deterrent to competition and facilitates coordinated or collusive behaviour. The range of competitive "symmetries" other than market shares has been assessed, *inter alia*, in terms of competitors' cost structures, financial resource, and amounts of spare capacity (including barriers to expansion).

[168] Under certain market conditions, one can foresee that an alignment of interests at the retail level might be heavily influenced by the similarity of the cost structures of the alleged oligopolists, especially where this is seen in combination with other factors. In its *Nestle/Perrier* Decision, the Commission took the view that "*companies facing different cost conditions could have a very different view on the prices they would like to prevail in the market*" (at paragraph 125), which would mean that coordination of pricing policies, without express and binding agreements among the companies "could become extremely difficult" (at paragraph 125). Accordingly, the Commission went on: *"[S]ignificant differences in costs can reasonably be considered an element that would hinder the implementation of tacit parallel behaviour*" (at paragraph 125). In that Decision, the major brands of the three national suppliers had similar cost structures and no supplier was deemed to have a cost advantage. The raw material, source water, was free and produced simply by bottling. It was difficult to gain a technological advantage in this regard. In addition, as the brands were bottled at source, the resulting multiplicity of bottling facilities reduced the scope for economies of scale. The Commission also noted that the products were supplied ex-works, which meant that transport costs were not borne by the suppliers. Thus, there was no incentive for aggressive competitive action in terms of cost-cutting.

In *Gencor/Lonrho*, the Commission considered that the merger between the low-cost producer, LPD, and the high-cost producer, Implats, would result in the alleged duopolists having similar operating cost structures of their mines. (In other words, the cost asymmetries between the existing producers would be eliminated). This consideration was reached despite the Commission acknowledging that some "important" differences would still exist due to differences in ore quality, a different mix of ore mined, different costs in processing and refining operations, and differences in administration costs. (Although it is questionable whether the combination of a low-cost producer and a high-cost producer results in an average costs producer, as the Commission appears to have implicitly concluded in its decision). The Commission rejected Implat's argument that the joint venture with LPD would lead to considerable synergies, taking the view instead that it could lead to negative synergies. The CFI supported the Commission's conclusion that: "[*T*]*he greater similarity of the cost structure of Amplats and Implats/LPD [i.e., the alleged duopolists] means that the combined Implats/LPD and Amplats, to a greater extent, are likely to be affected and act in the same way on market developments, for example, in their production decisions. A price increase would, for example, have a similar effect on*

   - financial resources;[169]

   - spare capacity;[170]

   - market share and sales symmetries;[171]

- the purchasing power of customers;[172] and

the profitability of the two companies. The two South African players would therefore have a higher degree of common interest in the way the market should develop, and this would increase the likelihood of anti-competitive parallel behaviour following the merger, for example restriction of output" (at paragraph 184).

In its *Danish Crown/Vestjyske Slagterier* Decision, the Commission considered that Steff-Houlberg, the merged entity's largest competitor and alleged duopolist, had no cost advantages over the merged entity. The Decision noted that Steff-Houlberg purchased the same raw materials at the same price as the notifying parties, used the same production technology and to a large extent sold its production via the same channels as the merged entity. In addition, the Commission foresaw little scope for cost improvements in the future, citing a report noting that Steff-Houlberg had already reached the optimum scale economies in terms of operating costs.

[169] One can assume that symmetries in financial strength can also lead firms in oligopolistic markets to view the their commercial interests differently. In its *Kali&Salz* judgment, the ECJ noted that the significant asymmetries between the alleged members of the duopoly in terms of their respective financial resources would limit the preservation of a common interest amongst the alleged members of the oligopoly. Kali&Salz was a subsidiary of BASF, which was one of the leading fertiliser processors and whose economic power was much greater than that of the EMC group, the parent company of the other alleged duopolist, SCPA. Administrative practice has, however, been anything but consistent in appraising the role of financial resources. For example, the Commission's decision in *Danish Crown /Vestjyske Slagterier* considered that the merged entity's overwhelmingly more powerful economic position than its nearest competitor to be a contributing factor to finding of duopolistic dominance.

[170] The availability of idle capacity should, one would assume, act as a disincentive to collusive or even consciously parallel behaviour. This is because it can be taken advantage of by individual operators to increase sales and gain market share. In communications markets, which are currently characterised by an over-investment in capacity, one should assume that this line of logic would apply with even greater force. In its *Pilkington-Techint/SIV* Decision, the Commission was of the view that the requirement on a member of the alleged oligopoly to sell capacity from its newly established float glass production facility would significantly frustrate any attempt to create a situation of anti-competitive parallel behaviour.

Thus, in the *Gencor/Lonhro* Decision, the Commission took the view that, for a controlled restriction of output to lead successfully to a price increase, "*it is essential that the response from the marginal sources of recycling, suppliers outside the oligopoly and above-ground stocks [of platinum] is strong enough to fill the gap left in the market by the suppression of output*" (at paragraph 138(c)). In that case, the Commission did not find that historical supply responses at the margins from the existence of stocks, new mines and recycling, amounted to a disciplinary force of significance on the oligopoly members in the platinum market.

In *Kali&Salz*, the ECJ, in annulling the Commission's finding of oligopolistic dominance, relied on several asymmetries in terms of spare capacities between the alleged duopolists, including: (a) considerable differences in the EU potash production capacity of Kali&Salz/MdK and SCPA, being 60% and 20% respectively; and (b) significant differences in their potash reserves, with those of SCPA expected to be completely exhausted by 2004 while MdK operated its plants at only 50% of capacity.

[171] In its *Nestle/Perrier* Decision, the Commission concluded that the similarities in market share and sales volume between the merged entity and the other alleged duopolist meant that "*any aggressive action by one would have a direct and significant impact on the activity of the other supplier and most certainly provoke strong reactions with the result that such actions could considerably harm both suppliers in their profitability without improving sales. Their reciprocal dependency thus creates a strong common interest and incentive to maximise profits by engaging in anti-competitive parallel behaviour*" (at paragraph 123).

[172] Consistent with traditional economics, in its *Pilkington-Techint/SIV* Decision, the Commission took the view that the *"[F]irms supplying a product which has a price inelastic demand (at the competitive price) tend to have a strong incentive to form a cartel or to engage in cartel-like behaviour where this*

- the price elasticity of demand.[173]

is feasible" (at paragraph 31). An analysis of the case-law of the European Courts and administrative practice of the Commission is instructive in this regard. As has been witnessed in numerous cases involving single dominance, the ability of customers to exert counteracting bargaining power on a supplier is a strong factor against a finding of market power. This should apply with even greater force in an alleged oligopolistic dominance situation, where customers can play off one supplier against another. The Commission's approach, however, has been to treat the pro-competitive effect of customers' countervailing bargaining power with caution, at least where the level of trade effected is such that any economic loss can be passed on to end users. The Commission acknowledges the importance of a customer's economic power as a counterweight to collective dominance and therefore its capability of discouraging any parallel conduct. Its assessment should take into account the influence and characteristics of the various types of customers that exist on the relevant market(s), *e.g*., whether their activity is carried out by the subsidiaries of large multinationals. The Court considers this to be an important factor in determining the levels of competitiveness of the market. (In *Kali&Salz*, Advocate General Tesauro criticised the Commission for failing to take any account at all of the customers' relative economic power. An analysis of the case-law of the European Courts and administrative practice of the Commission is instructive in this regard.

In the *Nestle/Perrier* Decision, the buying power of the large retailers was considered by the Commission to be insufficient to constrain significantly the power of the national water suppliers, despite an economist's report demonstrating that the average rebate of one supplier had increased by 50% in four years. In this regard, the Commission noted that the enforcement of competition law must pay attention to the protection of weaker buyers to which different conditions of sale may be applied.

In *Price Waterhouse/Coopers and Lybrand*, the Commission was aware that although tender offers for audit services were infrequent (lasting years or even decades), three or four members of the Big Six submitted bids to seek engagement from clients. Thus, clients are able to an extent to use the implicit threat of going to a tender process to constrain the power of their "incumbent auditor". In addition, these clients were sophisticated buyers and were well informed as regards the price, quality and value of audit and accounting services. Nevertheless, the Commission determined that any reduction in the number of suppliers in the Big Six audit market for large companies would limit clients' choice of new auditors as well as limit their purchasing power. This negative effect on the market was reduced in light of the termination of the merger plans between KPMG and Ernst & Young, with the Commission deciding that the proposed merger in question did not give rise to oligopolistic dominance. (The Commission's reasoning in this regard is rather confusing, particularly paragraphs 112 to 113).

In its *Gencor/Lonhro* Decision, the Commission rejected the parties' contention that considerable purchasing power was evidenced by reason of the existence of ten main purchasers worldwide. Instead, the Commission took the view that an absence of purchasing power was demonstrated by the fact that: (i) low discounts were accorded to customers; (ii) long-term contracts prohibited resale without consent; and (iii) the purchasers were not the ultimate customers, which meant price increases were simply passed on to their customers. Similarly, the Commission reached its conclusion on the presence of duopolistic dominance on the Danish market for fresh pork sold through supermarkets in its *Danish Crown/Vestjyske Slagterier* Decision on the basis of, *inter alia*, the lack of countervailing buying power on this market. The Commission concluded that Danish supermarkets were compelled to purchase Danish pork due to strong customer demand and that any price increases could be passed on to their consumers in any event.

By way of contrast, its *Dupont/Hoechst/Herberts* Decision, the Commission considered that the significant purchasing power of car manufacturers was one of the factors which outweighed the risks of oligopolistic dominance. For example, the manufacturers chose suppliers via a bidding process, required significant R&D to be undertaken by the suppliers, and chose both a main and a back-up supplier (in order to ensure competition on the supply side).

[173] In the *Nestle/Perrier* Decision, empirical evidence demonstrated that there existed low price elasticity of demand for mineral waters with regard to local waters. Thus, the Commission concluded that this facilitated price increases or at least the maintenance of high prices without losing significant sales volumes to local water suppliers. Adopting this principle in the *Price Waterhouse/Coopers & Lybrand* Decision, the Commission found that price elasticity of demand in the market for the provision of audit and accounting services to large companies was deemed to be low because of: (i) clients' legal obligations to purchase the service; (ii) switching costs; and (iii) the minute proportion of the total costs of Big Six clients represented by audit and accounting services. The Commission went on to determine that the market in question was not characterised by oligopolistic dominance.

In addition, the Commission's investigation concerning the risks of oligopolistic dominance in a post-merger marketplace will, of necessity, be based on its extrapolations of future conduct derived from past patterns of market behaviour. [174]

2.2.4.2.5 Credibility of co-ordination

1. *Market transparency*

Each member of the dominant oligopoly must have the ability to know, sufficiently precisely and quickly, how the members are behaving in order to monitor whether or not they are adopting a common policy.[175] It is not enough that such market transparency enables each member of the dominant oligopoly to be aware that interdependent market conduct is profitable for all of them, but each member must also have a means of knowing whether the other operators are adopting the same strategy and whether they are maintaining it. It is only through such monitoring behaviour that firms will know when to activate deterrent mechanisms. The Commission considers that, in a relatively transparent market, it is easy for an undertaking to follow the moves of its competitors and to adapt its own decisions accordingly. In *Gencor/Lonrho*, the CFI stated that:

> *"[B]y means of the price mechanism, the members of an oligopoly can, in particular, immediately discern the decisions of other members of the oligopoly to alter the status quo by increasing their market share and they may take such*

[174] In its *Nestle/Perrier* Decision, for example, it was demonstrated that the prices of the three national water suppliers had consistently increased their prices in a parallel manner for a period of at least five years. Regardless of which party first increased its price (generally Perrier), the two remaining suppliers always followed suit. There was no price decrease in the investigation period; this fact, when coupled with low price elasticity of demand and the development of instruments of transparency, demonstrated that the proposed merger reinforced the likelihood of the parties tacitly adopting a strategy to increase prices jointly. In addition, the Commission took into consideration the joint reaction of Nestle and BSN, the remaining alleged duopolist, to the takeover bid by an operator from outside the water industry of Perrier, which had larger amounts of spare capacity than BSN or Vittel, a response regarded as a "*joint entry deterrence action*" (at paragraph 127).
In the *Pilkington-Techint/SIV* Decision, the Commission took the view that certain agreements between the undertakings concerned, which had been condemned only five years prior to the decision and by the Bundeskartellamt only a few months previously, were such as to foster anticompetitive parallel conduct. However, this factor was not such to lead to the imposition of conditions, still les to the prohibition of the concentration.
In *Kali&Salz*, the ECJ considered that an agreement between the alleged duopolists which was declared incompatible with Article 81 in 1973, *i.e.*, a period of twenty years prior to the case at hand, was "extremely weak, indeed insignificant evidence" (at paragraph 241) on which to infer that there was no competition between alleged duopolists.
In *Gencor/Lonrho*, the Commission examined past competitive behaviour over a period of two decades before determining that the market was characterised in the past by a low level of competition and a tendency towards oligopolistic dominance. This was evidenced by: (i) past market growth and market share developments; (ii) the low degrees of direct price competition; (iii) sustained high prices (despite evidence demonstrating that real prices were being driven down over the last five years; the Commission preferring to review a twenty year period); and (iv) the past behaviour of the main market players, in particular the cartel-like behaviour of the South African suppliers and the likelihood of a reduction in competition from Russian suppliers.

[175] Paragraph 62 of the *Airtours* judgment.

> *retaliatory measures as may be necessary in order to frustrate actions of that kind*" (at paragraph 227).[176]

While price transparency was held by the CFI in its *Gencor/Lonhro* judgment to be the "*most important element*" in determining the level of market transparency, the transparency of, for example, production capacity and volumes, sales, reserves and new investment is also taken into account. Information of an aged nature will be of less value. An analysis of the case-law of the European Courts and the administrative practice of the Commission provides some guidance in this regard.[177]

[176] While the CFI referred to retaliatory measures, the analysis of the Court and the Commission as to the effectiveness of such measures appears to be less than convincing.

[177] In *Nestle/Perrier*, there was considerable market transparency insofar as: (i) retail prices of bottled water are transparent; (ii) packaging and product sizes were the same; (iii) list prices with basic quantity rebates were published; (iv) suppliers shared all customers and thus had access to considerable feedback; and (v) the main trade association published monthly sales figures by brand. This allowed each supplier to follow the evolution of the market positions of its competitors, and in turn facilitated "*a tacit coordination of pricing policies"* (at paragraph 120). The regular exchange of sales information permitted the immediate detection by any single major brand of the expected performance of another. Historical evidence of a high degree of price parallelism was also presented. The Commission accepted Nestle's commitment not to provide any data less than one year old on its sales volumes to any entity for as long as the narrow oligopolist market conditions persisted.

In the *Price Waterhouse/Coopers & Lybrand* Decision where the Commission found no oligopolistic dominance, its investigation nevertheless revealed a significant degree of price transparency in light of: (i) hourly rates being reasonably well-known; (ii) salaries and labour costs, which constitute well over half the total costs, were published and known from inter-firm personnel transfers; and, in some Member States, (iii) the level of audit fees are published in companies' annual reports with companies being legally obliged to employ dual auditors in many jurisdictions.

In its *Enso/Stora* Decision, the Commission considered that the several characteristics of the relevant market (such as moderate growth, high concentrations, a lack of innovation and a homogeneous product), which may have suggested an anti-competitive oligopolistic market for newsprint, was sufficiently counterbalanced by, *inter alia*, a lack of market transparency. The notifying parties submitted that the market lacked transparency on such key issues as supplies and price, a fact demonstrated by the presence of secret discounts. Similarly, in its *Pilkington-Techint/SIV* Decision, the Commission determined that little market insight could be achieved by examining competitor's price lists as either no price lists existed or, where they did, there were of little value because substantial and variable discounts may have been individually negotiated with customers.

In *Gencor/Lonhro*, the Commission determined that prices *were* transparent because of the commodity nature of platinum and its trading conditions on the metal exchanges. Further, quantities supplied to the market were readily known because of: (i) the trading on the metal exchanges; (ii) the regular publication of statistics on production and sales; (iii) the limited number of direct customers on the market which ensured that each could be contacted; (iv) the existence of long-term agreements, which had the effect of forewarning producers of their customers' future purchasing intentions. This transparency was further increased by the intimate nature of the platinum market, in which all the key players know each other personally and met frequently. The Commission also noted that it was normal for key personnel to move between the various market participants, while the CFI emphasised that new production capacity was normally increased by means of investment projects whose details were generally known in the industry. The Commission concluded that, "*all in all*", this market demonstrated a high degree of market transparency (despite acknowledging that not all aspects of the industry were transparent). Certain data, such as customer contracts, ore grades, the exact quality and quantity of reserves, was protected by business secrets, while other data was incomplete.

By way of contrast, the fact that coating products were purchased through a bidding process, in which a supplier's prices were not transparent, was among the factors which supported the Commission's conclusion that oligopolistic dominance was unlikely to arise from the proposed merger in the *Dupont/Hoechst/Herberts* Decision. In its *Danish Crown/Vestjyske Slagterier* Decision, the Commission supported its finding of duopolistic dominance by reference to the transparent nature of the market for fresh pork.

2. Deterrence mechanisms

It is an established economic principle that co-ordination between undertakings will be easier to uphold if deviations from a communicated strategy – either explicit or otherwise - are more likely to be detected by other undertakings which have the means to punish deviation in an efficient, sufficiently severe and timely manner.[178] Economists attach the greatest significance to deterrent mechanisms in determining whether oligopolistic dominance exists.[179] Of course, parties should be able to arrive at a common perception as to which actions would be considered aggressive, thus justifying retaliatory mechanisms (*i.e.*, punishments) by the other members of the dominant oligopoly. In other words, it should be relatively easy to establish the terms of coordination.[180] In its *Airtours* judgment, the CFI similarly stated that "*the situation of tacit collusion must be sustainable over time, that is to say, there must be an incentive not to depart from [a] common policy on the market*" (at paragraph 62). This means that each member of the dominant oligopoly must be aware that highly competitive action on its part designed to increase its market share would provoke identical action by the others, so that it would derive no benefit from its initiative.[181]

There are a wide variety of retaliation mechanisms, such as a simple reversion to normal competition to price wars, targeted actions and other legitimate business activities. The effectiveness of such mechanisms will be determined on a case-by-case basis, taking into account such factors as: the time period in which competitors can react; the frequency of interactions in the marketplace, such as price adjustments or access negotiations; the structural characteristics of the marketplace, such as long-term customer contracts; whether competitors are motivated by short or long-term profits; and whether the market is characterised by cost or quality synergies.

[178] This principle is commonly referred to by economists as "the credibility of co-ordination".

[179] In the Commission study on collective dominance carried out by Kantzenach, Kottmann and Kruger in 1995, the study team concluded that *"[T]he crucial question is … whether the circumstances of the market structure are such that collusive behaviour by the oligopolists is both possible and sustainable over time.*" *See* also, for example, "*Joint Dominance – The CFI Judgement on Gencor/Lonrho*", Lexecon Competition Memo, June 1999. Lexecon notes that *"The question must be whether the merger would change market circumstances in such a way that co-ordination becomes significantly easier to maintain. This does not mean that the authorities actually have to predict whether the firms are going to co-ordinate or not. Instead they need to assess in detail how credible it would be for the firms to sustain the co-ordination – but whether it is rational for them to do it, or attractive because it increases profits, is in effect a secondary issue."*

[180] The draft Notice on the appraisal of horizontal mergers.

[181] This principle was summarised by the CFI in its *Gencor/Lonhro* judgements as follows: "*there is no reason whatsoever in legal or economic terms to exclude from the notion of economic links the relationship of interdependence existing between the parties to a tight oligopoly within which, in a market with appropriate characteristics, in particular in terms of market concentration, transparency and product homogeneity, those parties are in a position to anticipate one another's behaviour and are therefore strongly encouraged to align their conduct in the market, in particular in such a way as to maximise their joint profits by restricting production with a view to increasing prices. In such a context, each trader is aware that highly competitive action on its part designed to increase its market share (for example a price cut) would provoke identical action by the others, so that it would derive no benefit from its initiative. All the traders would thus be affected by the reduction in price levels*" (at paragraph 276).

The approach to oligopolistic dominance under the *US Horizontal Merger Guidelines*[182] is similar to the approach favoured by economists and the CFI. In particular, the US Guidelines state that *"[S]uccessful co-ordinated interaction entails reaching terms of co-ordination that are profitable to the firm involved and an ability to detect and punish deviations that would undermine the co-ordinated interaction. Detection and punishment of deviations ensure that co-ordinating firms will find it more profitable to adhere to the terms of co-ordination that to pursue short-term profits from deviating, given the costs of reprisals*" (at section 2.1).

2.2.4.2.6 Market constraints

In its Airtours judgment, the CFI concluded that the Commission must also establish that "the foreseeable reaction of current and future competitors, as well as consumers, would not jeopardise the results expected from the common policy" (at paragraph 62). Each of these elements is discussed below.

1. Competitive fringe

In its *Gencor/Lonhro* Decision, the Commission acknowledged that the lack of a possible supply response at the margins is crucial for the exercise of monopoly power. As was noted in its *Price Waterhouse/Coopers and Lybrand* Decision, evidence of the weakness of competitive pressure from other suppliers must be "very strong" if the Commission is to be able to establish the existence of collective dominance.[183] Economists have not identified a "bright line" when fringe competitors become sufficiently important, but have observed that a competitor with a smaller market share may constitute an important disruptive factor where it is a close competitor of the oligopolists in question, or where it has been particularly aggressive or has acted as a disruptive factor in the past.[184] A recent market entrant can also have a destabilising

[182] Horizontal Merger Guidelines, U.S. Department of Justice and the Federal Trade Commission, revised version of 8 April 1997.

[183] The Commission noted that this was implied in the *Kali&Salz* judgment.

[184] In its *Nestle/Perrier* Decision, the Commission determined that local spring waters did not constitute, at least in the short term, a real competitive threat to the market positions of the three national suppliers, despite representing 17.7% by value and 25.8% by volume of total water sales. In particular, the investigation revealed that: (i) the average yearly increase in value and volume of the three national suppliers always exceeded that of the local suppliers; (ii) the three principal suppliers succeeded in regularly increasing their prices, regardless of the presence of local spring waters; and (iii) the financial strength of the local water suppliers compared with that of Nestle and BSN was extremely weak, thereby preventing them from investing in the development of sources, advertising or nation-wide distribution systems. The Commission, referring to *Hoffman-La-Roche*, noted that *"[E]ven lively competition is not incompatible with market power as long as such competition does not compel the undertakings holding the market power to lower their prices"* (at paragraph 70).
In its *Pilkington-Techint/SIV* Decision, the Commission determined that the proposed concentration would not give rise to the creation of a collective dominant position between the five major float glass producers in the Community as, *inter alia*, there existed an aggressive competitor, Guardian, whose market share had systematically risen over a three year period. In addition, this competitor had recently built a new float tank which would further increase float glass overcapacity in the Community. The Commission considered that the requirement for Guardian to sell this additional capacity would

effect on a coordinated outcome, as can low barriers to expansion, innovative technologies or varying commercial strategies.

2. Potential competition and barriers to entry/exit

It should be borne in mind that a merger in a market that is characterised by few players but also by easy entry, will generally not result in competition concerns. In *Nestle/Perrier*, the Commission stated that *"[T]o address the question of potential competition it needs to be examined whether there exists competitively meaningful and effective entry that could and would be likely to take place so that such entry would be capable of constraining the market power of the two remaining national suppliers … The entry would have to occur within a time period that was short enough to deter the company(ies) concerned from exploiting their market power"* (at paragraph 91). An analysis of the case-law of the European Courts and administrative practice of the Commission provides much guidance in this regard.[185] Potential and barriers to entry are discussed in greater detail in section 2.2.3.4 above.

significantly frustrate any attempt to create a situation of anti-competitive parallel behaviour.
Similarly, in *Kali&Salz*, the ECJ concluded that the Commission had not succeeded in demonstrating that there was no effective competitive counterweight to the alleged duopoly formed by Kali&Salz/MdK and SCPA. In particular, Advocate General Tesauro took the view that the nine remaining operators remaining on the market following the concentration held shares which were such as to give rise to a situation in which the influence of the competitors on the alleged duopoly would undoubtedly appear to be significant (unfortunately the judgment does not reveal their market shares). In addition, the ECJ, by acknowledging the presence of smaller competitors such as Coposa, and the effects of imports of potash from the CIS, implicitly recognised the role of these factors in disrupting any possibility of oligopolistic collusion. Although Coposa's production capacity would have been considerably reduced by the closure of a mine, the Court concluded that, in light of Coposa's 70% overcapacity rate, the Commission was wrong to argue that Coposa lacked the necessary base to maintain or increase its market share. On the contrary, Coposa's overcapacity would exert pressure on the alleged duopoly.
The style of management of remaining competitors is also likely to be taken into account by the Commission. In *Gencor/Lonrho*, the Commission emphasised that the elimination of a competitor, LPD, whose management style and cost structure differed significantly from those of the remaining oligopolists, was one of the most important features of its competitive assessment. In addition, the Commission estimated that the Russian reserves would be depleted within two years, thereby reducing the Russian producer to a minor player in the platinum industry.

[185] In its *Nestle/Perrier* Decision, the Commission determined that there were significant barriers and risks associated entering the French bottled water market as: (i) it was characterised by slowing demand growth; (ii) the market was mature in terms of brands and range of products; (iii) the establishment of a new brand is not only very costly and time consuming, but is also extremely risky, as advertising and brand promotion constitute sunk costs which are not recoverable in the case of failure; (iv) national suppliers grant annual rebates to customers which strengthen their position; (v) national suppliers had invested heavily in establishing reputable brands which had resulted in constantly increasing customer fidelity and, in turn, a low elasticity of demand; (vi) the market was already highly concentrated, which "*increases the likelihood and the efficiency of single or concerted reaction by the established firms*" (at paragraph 98). The Commission accepted Nestle's commitment to sell a range of its mineral and spring waters, on the ground that it should create effective competition to counteract any alleged duopolistic dominance. While the existing sales of this range of products were still very low, the Commission acknowledged that their potential for development was high given the capacities and the characteristics required by the future buyer. In particular, the purchaser needed to possess: (i) sufficient financial resources to develop a distribution network and promote the brand; and (ii) sufficient expertise.
In *Gencor/Lonrho*, the Commission concluded that no significant new entrant would be capable of challenging the oligopoly in the foreseeable future as: (i) all economically viable high quality ore

2.2.4.3 Collective Dominance Under Article 82 EC

2.2.4.3.1 Overview of the administrative practice

There is limited jurisprudence of the European Courts concerning collective dominance under Article 82 EC, with the most recent case being that of *Compagnie Maritime Belge.*[186] In this case, the ECJ ruled that an assessment of collective dominance under Article 82 EC is comprised of three essential elements, namely: (i) whether the undertakings concerned constituted a collective entity vis-à-vis their competitors, their trading partners and consumers;[187] (ii) whether that entity is in a dominant position; and (iii) whether its conduct amounts to an abuse contrary to Article 82 EC.[188]

2.2.4.3.2 Collective entity

According to established case-law, a collective entity is formed when, from an economic point of view, two or more economic entities legally independent of each other present themselves or act together on a particular market as a collective entity vis-à-vis their competitors, their trading partners and consumers.[189] These entities will be in a collectively dominant position where they have the ability, as a result of the collective entity, to act together independently of their competitors, their customers and consumers.[190]

A review of EC case-law suggests that it is necessary to satisfy three criteria in order to establish the existence of a collective entity for the purposes of Article 82 EC. First, it is necessary to demonstrate that economic links or factors[191] give rise to a connection

reserves of platinum were controlled by the oligopolists; (ii) the mining and refining of platinum were capital intensive activities; and (iii) the development of a mine was characterised by large sunk costs, thereby increasing the risk for new market entrants. In the *Danish Crown/Vestjyske Slagterier* Decision, the Commission concluded that potential competition would not prevent the emergence of duopolistic dominance on the Danish market for fresh pork sold through supermarkets due to, for example, additional veterinary controls for imported pork, strong consumer demand for Danish pork and the need for importers to establish distribution channels.

[186] Commission Decision of 23 December 1992, Case No. IV/.32.488 and IV/32.450 – *Cewal, Cowac and Ukwal* and IV/32.448 and IV/32.450 – *Cewal*, (hereinafter "the *Compagnie Maritime Belge* Decision"), appealed in Joined Cases T-24/93 to T-26/93 and T-28/93, *Compagnie Maritime Belge NV and Dafra-Lines v. Commission* (hereinafter "the *Compagnie Maritime Belge* CFI judgment"), appealed in turn in Joined Cases C-395/96 P and C-396/96 P, *Compagnie Maritime Belge NV and Dafra-Lines v. Commission* (hereinafter "the *Compagnie Maritime Belge* ECJ judgment").

[187] The *SMP and Market Analysis Guidelines* explicitly acknowledge this test. Paragraph 92 states "*in order to show that two or more undertakings hold a joint dominant position, it is necessary to consider whether the undertakings concerned together constitute a collective entity vis-à-vis their competitors, their trading partners and their consumers on a particular market*".

[188] At paragraph 39.

[189] At paragraph 36 of *Compagnie Maritime Belge* ECJ judgment.

[190] A paragraph 39 and 42 of *Compangnie Maritime Belge* ECJ judgment.

[191] While the ECJ in *Kali&Salz* referred to "*correlative factors which exist between*" the undertakings concerned (at paragraph 221), the CFI in its *Gencor/Lonrho* judgment referred to them as "*factors giving rise to a connection between them*" (at paragraph 163). Advocate General Fennelly noted in his

between the undertakings concerned.[192] Such economic links or factors are generally decided on a case-by-case basis and the Commission has considerable discretion over the importance to be granted to each link or factor. Examples include market characteristics, such as market concentration, transparency and product homogeneity,[193] and structural links.[194]

Second, the two or more economic entities legally independent of each other must, from an economic point of view, "*present themselves or act together on a particular market as a collective entity.*[195] It is arguable that as a result of this second criterion, the collection dominance test applied under Article 82 EC is stricter – at least from a legal perspective, if not from an economist's point of view – than the collective dominance test applied under the *Merger Regulation*. This debate impacts on the new communications regulatory framework since the Commission has aligned the new SMP definition with the definition of dominance under Article 82 EC.

The ECJ applied the legal standard above to the facts of the case in its *Compangnie Maritime Belge* judgement. It concluded from the nature and objectives of the Regulation on the application of Articles 81 and 82 to maritime transport services that a liner conference could be characterized as a collective entity "*which presents itself as such on the market vis-à-vis both users and competitors*" (at paragraph 48). Indeed, the ECJ upheld the CFI's judgement in this context, which focused on whether the members of the liner conference adopted uniform conduct on the relevant market.[196]

Opinion in *Compagnie Maritime Belge* that the phrase "*united by such economic links in [Italian Flat Glass] should be understood in light of the formulation from Kali&Salz, to wit "factors giving rise to a connection between them" which does not seem to be any different from "economic links*"" (at paragraph 27).

[192] This criterion was confirmed by the ECJ in its *Compagnie Maritime Belge* judgment. The ECJ referred in support to paragraphs 43 and 221 of its *Almelo* and *Kali&Salz* judgments respectively. Paragraph 43 of the *Almelo* judgment states that "*[I]t is for the national court to consider whether there exist between the regional electricity distributors in the Netherlands links which are sufficiently strong for there to be a collective dominant position in a substantial part of the common market*".

[193] Such market characteristics are discussed in greater detail in section 2.2.4.1.4 above.

[194] In its *Gencor/Lonrho* judgment, the ECJ made it clear that the notion of economic links in the context of Article 82 cases was not restricted to structural links. In particular, it state that "*there is no reason whatsoever in legal or economic terms to exclude from the notion of economic links the relationship of interdependence existing between the parties to a tight oligopoly within which, in a market with the appropriate characteristics, in particular in terms of market concentration, transparency, and product homogeneity, those parties are in a position to anticipate one another's behaviour and are therefore strongly encourage to align their conduct in the market, in particular in such a way as to maximise their joint profits by restricting production with a view to increasing prices. In such a context, each trader is aware that highly competitive action on its part designed to increase its market share (for example a price cut) would provoke identical action by the others, so that it would derive no benefit from its initiative. All the traders would thus be affected by the reduction in price levels*" (at paragraph 276).

[195] At paragraph 36 of *Compagnie Maritime Belge* judgment.

[196] Advocate General Fennelly in his Opinion stated that the CFI had correctly posed for itself this test at the outset of its assessment of the collective dominance of the members of Cewal. The CFI emphasised that the ECJ in its *DIP* judgment had held that in order for a collective dominant position to exist under Article 82 EC, the undertakings in question must be linked in such as way that "*they adopt the same conduct on the market*" (at paragraph 62). On this basis, the CFI noted that "*as a result of the close relations which shipping companies maintain with each other within a liner conference, they are capable together of implementing in common on the relevant market practices*

The *Almelo* judgement[197] and subsequent judgements in *Centro Servizi Spediporto*[198] and *DIP*[199]*,* all of which were based on Article 82 EC, refer to the requirement for the competitors to have "adopted" a common policy or conduct on the relevant market.[200]

The stricter legal standard appears to have been applied also in the Advocate General's Opinion in *Bagnasco and Others v. Banca Populare di Novara and another,*[201] which concerned a Commission Decision that had rejected an allegation that several Italian banks were collectively dominant simply by virtue of their membership in the Italian Banking Association ("the ABI"), in which almost all Italian banks were members. The Advocate General Ruiz-Jarobo Colomer, supporting the Commission's view, concluded that:[202] "*In [his] opinion, the banks belonging to the ABI do not hold a collective dominant position on the Italian banking market, because membership of that association does not create between the various banking institutions economic links*

such as to constitute unilateral conduct. Such conduct may involve infringements of Article [82] if the other requirements for the application of that provision are also met" (at paragraph 64) (emphasis added).

The Court proceeded to examine whether such "a capability" was indeed acted upon by the members of the liner conference. It considered the definition and implementation of uniform freight rates and other common conditions of carriage, the existence of several committees, as well as the fact that there appeared to be a common strategy or intention on the part of its members to react unilaterally to competitive threats from third parties, as supporting its determination that the members of the liner conference presented themselves on the market "*as one and the same entity*" (at paragraph 65). Apart from the agreements concluded between the shipping companies, the Court also referred expressly to the "*links between the undertakings such that they adopted uniform conduct on the market"* (at paragraph 67) (emphasis added). In his Opinion, Advocate General Fennelly cited as examples of links the use of model conditions of supply drawn up by a common trade association, cross-shareholdings, common directorships, family links with economic consequences, and the pursuit of a common marketing strategy or sales policy. He sums up such examples by considering that "*they are not to be defined except by reference to their result namely, the establishment of a situation where a group of independent undertakings performs as a single market entity*" (at paragraph 28). The Commission in its decision also concluded that "*the shipping conferences operated to a large extent as one and the same entity vis-à-vis their customers and competitors*" (at paragraph 55) (emphasis added).

[197] Case C-393/92*, Municipality of Almelo v. Energiebedriff Ijsselmij NV,* [1994] ECR I-01477. In its *Almelo* judgment, a case concerning regional electricity distributors in the Netherlands, the ECJ determined that for a collective dominant position to exist, "*the undertakings in the group must be linked in such a way that they adopt the same conduct on the market*" (at paragraph 42) (emphasis added). In its *Almelo* judgment, the Court added that such links must be sufficiently strong for there to be a collective dominant position. The ECJ referred to the *Bodson* judgment in support, where a group of undertakings, which had held monopolistic communal concessions for certain funeral services in France, was held to occupy a dominant position. (Case 30/87, *Corinne Bodson v. SA Pompes funebres des regions liberees*, [1988] ECR 2479).

[198] Case C-96/94, *Centro Servizi Spediporto Srl v. Spedizioni Marittima del Golfo Srl,* [1995] ECR I-2883 (hereinafter "the *Centro Servizi Spediporto* judgment").

[199] Joined Cases C-140/94 to C-142/94 *DIP and Others v. Comune di Bassano del Grappa and Comune di Chiogga*, [1996] 4 CMLR 157 (hereinafter "the *DIP* judgment").

[200] The ECJ's judgment in *Almelo* was confirmed by the ECJ in the subsequent *Centro Servizi Spediporto* and *DIP* judgments. In the former case, the ECJ ruled that in order to establish a collective dominant position, "*the undertakings in the group must be linked in such a way that they adopt the same conduct on the market*" (at paragraph 33) (emphasis added). In the *DIP* judgment, the ECJ confirmed that *"[I]n order to find that a collective dominant position exists, the undertakings in question must be linked in such a way that they adopt the same conduct on the market*" (at paragraph 26) (emphasis added).

[201] Joined Cases C-215/96 and C-216/96, *Bagnasco and Others v. Banca Populare di Novara*.

[202] The Court did not refer to this aspect of the case in its judgment.

which are so close as to cause them to adopt the same commercial strategy" (at paragraph 49).[203] The *SMP and Market Analysis Guidelines* acknowledge that the undertakings concerned must "adopt" a uniform conduct or common policy in the relevant market (and refer to the *Kali&Salz* judgment in support).[204]

Finally, it is necessary to demonstrate that there is no effective competition among the undertakings which form part of the collective entity. This is supported by the *Market Analysis and SMP Guidelines*,[205] as well as the respective *Centro Servizi Spediporto* and *DIP* judgments,[206] where the ECJ determined that the absence of competition between the supposedly collectively dominant undertakings would be a salient feature in its analysis.[207]

2.2.4.3.3 Collective entity's ability to act independently

In its *Compagnie Maritime Belge* judgment, the ECJ, having noted that the undertakings concerned must constitute a collective entity vis-à-vis their competitors, their trading partners and consumers on a particular market, went on to hold that it is necessary to

[203] The Advocate General went on to state that: '*Membership of the ABI does not preclude the banks belonging to it from trading on the market individually. ABI members present themselves on the market as undertakings pursuing independent commercial strategies which are the same only as regards those services in respect of which ABI has adopted a decision restrictive of competition which is followed by all its members and which falls within the scope of Article [81].*
If the view is taken that the members of the ABI hold a collective dominant position, the same could be said of all professional associations in a particular economic sector, and the decisions adopted by those associations could in all cases be assessed on the basis of Article [81]. This would give rise to a systematic "recycling" of the facts constituting an infringement of Article [81] whenever there was a possibility of Article [82] being applied on grounds of abuse of a collective dominant position.
In this connection, I think there is a clear difference between the degree of integration among the undertakings belonging to a professional association such as the ABI and that among the undertakings forming a shipping conference. The latter may hold a collective dominant position, as the Court of Justice and the Court of First Instance have recognised, because, in relation to customer, they present themselves on the market as one and the same entity. Undertakings belonging to a professional association, on the other hand, do not act on the market as an integrated entity" (paragraphs 50 to 52).

[204] At paragraph 92.

[205] The *Market Analysis and SMP Guidelines* state that, in order to show that two or more undertakings hold a collective dominant position, it is also necessary to demonstrate that "*there is no effective competition among the undertakings in question*" (at paragraph 92).

[206] In its *Centro Servizi Spediporto* judgment, the Court noted that *"[N]ational legislation which provides for the fixing of road haulage tariffs by the public authorities cannot be regarded as placing economic agents in a collective dominant position characterised by the absence of competition between them*" (at paragraph 34). In its *DIP* judgment, the Court stated that *"[National licensing rules] cannot be considered to put individual traders in dominant positions or all the traders established in a municipality in a collective dominant position, a solvent feature of which would be that traders did not compete against one another*" (at paragraph 27).

[207] *See* also Joined Cases T-68/89, T-77/89 and T-78/89, *Societe Italiano Vetro SpA and Others v. Commission* ("the *Italian Flat Glass* judgment") and *Kali&Salz* judgment. Although a merger decision, the Commission acknowledged in its *Price Waterhouse/Coopers & Lybrand* Decision that the *Kali & Salz* judgment implies that the evidence of a lack of effective competition between a group of suppliers held to be collectively dominant must be "very strong".

determine that the collective entity actually holds a dominant position.[208] In other words, it must be demonstrated that there is an absence of effective competition between the entities that act as a collective entity, and that there is no sufficient competition between the entities that act as a collective entity and other external undertakings.[209]

2.2.5 Identifying Leveraged SMP

As indicated above, where an undertaking has SMP on a specific relevant market, the *Framework Directive* enables it to be deemed to have SMP on a closely related market, where the links between the two markets are such as to allow the market power held in one market to be leveraged into the other market, thereby strengthening the market power of the undertaking.[210] There is limited jurisprudence of the European Courts on the subject of market leveraging, with the most pertinent judgments being the *Tetra Pak* judgment[211] and the *Tetra Laval/Sidel* judgment of December 2002[212].

2.2.5.1 The Tetra Pak II judgment

In 1991, the Commission found that Tetra Pak had abused its dominant position by engaging in a variety of anti-competitive practices, including predatory pricing. In so holding, the Commission identified two main product markets, one related to aseptic packaging and the other to non-aseptic packaging. On the aseptic packaging market, the Commission found that Tetra Pak held a dominant position, which was further reinforced by the existence of technological barriers and patents held by Tetra Pak which hindered market entry. No similar finding was made regarding the non-aseptic packaging market.[213] Nevertheless, the Court held that Tetra Pak was "*in a situation*

[208] At paragraph 42, the ECJ ruled that "*it must be ascertained whether economic links exist between the undertakings concerned which enable them to act together independently of their competitors, their customer and consumers*". *See*, also, paragraph 200 of *Gencor/Lonrho* judgment. In Kantzenbach 1995, the authors considered that the criterion for collective dominance can only be fulfilled if essentially no competition exists between the members of an oligopoly (*i.e.*, is no internal competition amongst the core members) and the oligopoly taken as a whole holds a dominant position (*i.e.*, no external competition between core oligopolists and fringe competitors).

[209] This principle is also recognised in national legislation. For example, a checklist of factors relevant to the control of concentrations, adopted in 1991 by the Federal Cartel Office in Germany, acknowledges that the absence of competition between the members of the oligopoly and "outside" competitors is an essential factor for characterising the oligopoly as being dominant.

[210] Article 14(3) of the *Framework Directive*.

[211] Commission Decision 92/163/EEC of 24 July 1991 relating to a proceeding pursuant to Article 86 of the EEC Treaty (IV/31043, *Tetra Pak II*), 1992 OJ L 72/1. Case T-83/91, *Tetra Pak International v. Commission*, [1994] ECR I-755; on appeal, Case C-333/94P, *Tetra Pak International SA v. Commission*, [1996] ECR I-5951 ("the *Tetra Pak II* judgment").

[212] Case T-5/02, *Tetra Laval BV v. Commission*, [as yet unreported] ("the *Tetra Laval* judgment").

[213] Although, as was noted by the Commission, Tetra Pak had "a market share which could be considered even on its own as demonstrating the existence of a dominant position".

comparable to that of holding a dominant position on the markets in question as a whole".

The Commission's rationale was based on the "associative links" between the two markets, which could be relied upon to condemn anti-competitive conduct on the non-aseptic market. The scope of application of Article 82 EC could thereby be extended to reach conduct that may occur over a number of associated or interrelated markets. In so holding, the Court modified its previous jurisprudence from the *Continental Can* case,[214] where it was held that there was no need to establish a causal link between the existence of dominance and its abuse. In particular, the Commission took the view that the association between the aseptic market and the non-aseptic market was significant for the following reasons:

- the key products which the cartons are used to package are the same on both the aseptic and non-aseptic markets, *i.e.*, liquid milk products and fruit juices;[215] and

- at the level of demand, the large majority of users of the products offered by *Tetra Pak* in the non-aseptic market are also active in the aseptic market.[216]

On appeal, both the CFI and the ECJ upheld the Commission's finding and recognised that "*the application of Article [82] presupposes a link between the dominant position and the alleged abusive conduct*",[217] although no evidence was produced on whether the close links between the two markets affected by the impugned conduct were sufficient, of themselves, for the application of Article 82. In this respect, both the Court of First Instance and the Court of Justice considered that Article 82 EC provides no explicit guidance as to what kind of relationship, if any, is required between the market in which dominance exists and the market on which the abuse takes place.[218]

The significance of the Court's analysis in the *Tetra Pak II* case lies in the fact that neither the CFI nor the ECJ considered it necessary to demonstrate, for the purposes of Article 82, that:

- Tetra Pak's dominant position on the aseptic packaging market permitted or at least facilitated its predatory or foreclosing practices on the non-aseptic packaging market; or

[214] Case 6/72 *Europemballage Corporation and Continental Can Co. Inc. v. Commission*, [1973] ECR 215.

[215] Based on *Tetra Pak*'s reply to the Statement of Objections, the Commission estimated that about 90 % of *Tetra Pak*'s sales involved liquid dairy products and fruit juices.

[216] At paragraph 104 of the Commission's Decision.

[217] At paragraph 27.

[218] Citing *Hoffman-La Roche*, the Court of First Instance confirmed that "*Article [82] covers all conduct of an undertaking in a dominant position which is such as to hinder the maintenance or the growth of the degree of competition still existing in a market where, as a result of the very presence of that undertaking, competition is weakened*" (at paragraph 114).

- Tetra Pak's conduct in the non-aseptic packaging market was intended to strengthen Tetra Pak's dominant position on the aseptic packaging market.

This consideration may lead to the conclusion that Article 82 EC can be used to condemn anti-competitive practices implemented by an undertaking on a market on which it is not dominant, where extremely close links can be shown to exist between dominated and non-dominated markets. In such cases, it is implicit that the market power held in one market or market segment can be held to be leveraged into another market or market segment.

While the *Tetra Pak II* case concerned closely related horizontal markets, the *Access Notice* points out that the analysis used in that case is equally applicable to closely related vertical markets,[219] which are commonplace in the telecoms sector.[220]

2.2.5.2 The Tetra Laval judgement

In the *Tetra Laval/Sidel* judgement, the CFI annulled the decision of the Commission[221] declaring the acquisition by Tetra Laval BV ("Tetra Laval"), a holding company belonging to the Tetra Laval group, of Sidel SA ("Sidel"), a French manufacturer of polyethylene terephthalate (PET) packaging equipment, incompatible with the common market.

The CFI emphasized that, where the Commission takes the view that a merger should be prohibited because it will create or strengthen a dominant position within a foreseeable period, it is incumbent upon it to produce convincing evidence thereof. The Court examined three types of alleged anti-competitive effects resulting from the merger, namely horizontal, vertical and conglomerate effects. Conglomerate effects relate to mergers of undertakings operating on different markets and which do not compete directly with each other. According to the Commission, a principal conglomerate effect of the proposed transaction would enable the merged entity to use its dominant position in the carton packaging market (via Tetra Laval) as a "lever" in order to achieve a dominant position in the polyethylene terephthalate ("PET") packaging equipment markets in the near future (*i.e.*, *leveraging*).

The CFI concluded that the Commission's analysis of foreseeable leveraging as a result of the proposed transaction was based, to a large extent, on objective, well-established

[219] Communication from the Commission on the application of the competition rules to access agreements in the telecommunication sector-framework, relevant markets and principles, OJ 1997 C76/9 (the "*Access Notice*").

[220] For example, at para. 65, the Commission notes that "*it is often the case that a particular operator has an extremely strong position on infrastructure markets, and on markets downstream of that infrastructure*".

[221] Commission Decision of 30 October 2001 declaring a concentration to be incompatible with the common market and the EEA Agreement, Case No COMP/M.2416- *Tetra Laval/Sidel*.

evidence. In particular, it judged that the Commission had satisfied the requisite legal standard that sufficiently close links existed between the markets for carton packaging and PET packaging, as a result of such factors as: the markets belonged to the same industrial sector; PET was considered as a weak substitute for carton, *i.e.*, it can be used to package most carton-packaged products; the principal suppliers of carton packaging were also present on the PET markets; there existed a common pool of customers for carton and PET; and their numbers were expected to rise in the future. The Commission emphasised such additional important structural factors as: the negligible positions of the competitors of Tetra and Sidel on the carton and PET markets; the first-mover advantage which the merged entity would have due to its strong position in the sensitive products segment,[222] products which are common to the carton and PET markets; and the superior financial strength, high degree of vertical integration and know-how of the merged entity.

In addition, the CFI noted that leveraging could especially arise where the relevant markets are tending to converge and where, in addition to the dominant position held by one of the merging parties on a market, the other party to the transaction holds a leading position on another market. The Commission determined that Tetra had a particularly strong dominant position in aseptic carton packaging with a market share of between 80% and 90% and a dependant customer base, while Tetra/Sidel would start from a strong, leading position in PET packaging systems, particularly stretch blow moulding (SBM) machines with a market share of approximately 60 to 70%. The Commission's investigation also revealed, for example, that there was already significant overlap between PET and carton for particular segments of the sensitive products line and that PET was expected to make continued significant inroads into the tea/coffee drinks and fruit flavoured still drinks segments.

Having established that there would exist a possibility for the merged entity to engage in leveraging practices, the Commission determined that the merged entity would also have a strong economic incentive to engage in leveraging practices. As carton and PET are technical substitutes, a firm switching to PET is essentially a lost customer on the carton side of the business either because it partially switched from carton or because it did not switch part of its production to carton. The Commission concluded that this created an incentive to capture the customer on the PET side of the business to recover the loss. Therefore, by leveraging its current market position in carton, Tetra/Sidel would not only have enhanced its market share as regards PET, but also defended or compensated its possible loss on the carton side of the business. The Commission proceeded to identify two types of leveraging methods that would enable the merged entity to ensure that, as far as possible, its customers on the carton markets would obtain from Sidel any PET equipment they may require, namely through: (i) pressure

[222] The term "sensitive products" products was used by the Court to describe the following packaging segments: milk; juices; tea/coffee based drinks; and fruit-flavoured drinks.

leading to tied or bundled sales of equipment for carton packaging jointly with PET packaging equipment; and (ii) measures could be adopted to offer incentives, such as predatory pricing, price wars and loyalty rebates.

While the Commission, in assessing the effects of the proposed transaction, relied on foreseeable leveraging methods which in themselves could constitute abuses of Tetra's pre-existing dominant position in the aseptic carton markets and accordingly be prohibited under Article 82 EC, the CFI noted that it had *failed* to assess whether, despite the prohibition of such leveraging methods, it is nonetheless likely that the merged entity will act in such a manner or whether, on the contrary, the illegal nature of these methods and/or the risk of their detection will make such a strategy unlikely. The CFI ruled that:

"While it is appropriate to take account, in its assessment, of incentives to engage in anti-competitive practices, such as those resulting in the present case for Tetra from the commercial advantages which may be foreseen on the PET equipment markets (recital 359), the Commission must also consider the extent to which those incentives would be reduced, or even eliminated, owing to the illegality of the conduct in question, the likelihood of its detection, action taken by the competent authorities, both at Community and national level, and the financial penalties which could ensue" (at paragraph 159).

The Commission considers this to be an "impossible" requirement to meet in practice and is inconsistent with the objectives of the *Merger Regulation* in any event. Indeed, this aspect forms a principal feature of the Commission's appeal against the *Tetra Laval/Sidel* judgment, which was lodged to the ECJ on 8 January 2003. The Commission also questions, *inter alia*, the appropriate standard of proof and requisite evidence to be produced by the Commission in merger prohibition cases.[223]

The CFI went on to perform a market-by-market analysis of the foreseeable effects of leveraging within the PET sector, with it determining that the contested decision did not adduce sufficient evidence concerning the creation of a dominant position in many instances. With respect to the barrier technologies, for example, the Court came to the conclusion that the position of the merged entity would not be sufficient so that, if leveraging took place, it would enable the merged entity to achieve a dominant position on this market by 2005.

[223] On 13 January 2003 the Commission approved the new Tetra Laval/Sidel merger subject to a commitment of Tetra Laval to license its upcoming "Tetra Fast" SBM technology. The Commission noted, however, that the clearance might be affected by the outcome of the above-mentioned appeal.