Principles of implementation and best practice on effective competition in electronic communications markets

as decided by the Independent Regulators Group

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National Regulatory Authorities (NRAs) implement the regulatory framework as currently laid down in EU and national law. These principles of implementation and best practice (PIBs) have been devised by the IRG to assist in the process of harmonising implementation in IRG member states. The NRAs are committed to implement these principles wherever possible.

Preamble

This set of PIBs consists of guidance notes on how to interpret and use the concept of effective competition in the application of the current regulatory framework for electronic communications. Although a new regulatory framework has been proposed by the European Commission (the Directive of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services) and is currently being discussed, the IRG believes it is useful to delineate the common lines of understanding on the concept as it now stands in the current framework. Since the current framework is going to remain in place until 2002, these PIBs can be valuable to help NRAs ensure a certain level of consistency of practices across Member States, taking into account that differences of practice might influence investment patterns, the degree of legal certainty perceived by the interested entities and the managerial procedures involving companies that have distinct organisational units operating throughout Europe. Moreover, these PIBs can form the basis for a constructive discussion of the concept of effective competition in the new framework.

1 Introduction

These PIBs provide insights into the nature and the practical implementation of effective competition, stemming from the understanding and the direct experience of National Regulatory Authorities (NRAs).

1.1 The concept of "effective competition" is mentioned in some of the Directives which set out the regulatory framework for the electronic communications

industries[1]. Due to the delicate nature of the implications of findings relating to effective competition, it is deemed important to shed more light on this concept and on how it may be applied by NRAs across Member States.

1.2 The paper covers two main issues:

- The theoretical background and the regulatory principles underlying effective competition and underpinning the approach to assessing effective competition; and

- The methodology and type of indicators to be used to review effective competition.

2 Background

Effective competition can be defined as the persistent absence of players with market power. In its essence market power is the ability to influence prices and of persistently enjoying higher profits than those enjoyed by firms which do not possess market power. In an effectively competitive market users are better off, because they are more likely to be provided a greater variety of products and/or services of lower price and higher quality than they could be provided in a non-competitive market.

2.1 To focus on the concept of effective competition it is useful to start with the economic concept of perfect competition. Economic theory has analysed the properties of competitive situations from many perspectives, however the most used paradigm of competition is the standard neoclassical one: perfect competition. According to the neoclassical model, a market is perfectly competitive when characterised by the following:

A. There is a large number of agents in the market.
B. There are no barriers to entry or exit, nor transaction costs.
C. The information is perfect, for sellers and consumers.
D. The goods produced are homogeneous.
E. The technology used shows decreasing or constant returns to scale.
F. Reactions to changes in prices occur very rapidly.

When these assumptions hold, in conjunction with other characteristics of the market (eg, absence of externalities), it can be proved that the market outcome is such that social welfare can be maximised: prices are as close as possible to (marginal) costs, firms are efficient and overall allocative efficiency is achieved. Hence a perfectly competitive market may be considered a desirable outcome and provides a benchmark for a substantial part of economic theory.

[1] For example, Art. 17(6) of the Revised Voice Telephony Directive (98/10/EC, OJ L 101, 1 April 1998) allows Member States to authorise its NRA not to apply the tariff principles laid down in Art. 17(1) to (5) in a specific geographical area where it is satisfied that there is effective competition in the fixed public telephony services market.

It is worth mentioning, however, that perfect competition is not the only model of market structure which is welfare-maximising. Other models include, for example, perfect contestability, or also monopoly with perfect first-degree price discrimination. The achievement of maximum social welfare depends also on the type of welfare utility function that is considered.

2.2 However desirable in theory, perfect competition is hardly ever attainable in practice, because its assumptions are unlikely to hold in the "real world". It is easy to argue that information is far from perfect, and that products are not homogeneous. Furthermore, in the communications industries other factors make the outcome even less likely: the presence of externalities (eg, the value of the network is greater the higher the number of people attached to it), the need to invest large levels of fixed costs which may act as an entry barrier, and the "composite" nature of the products (ie, the products are a combination of a more or less simultaneous combination of inputs) imply that perfect competition is not an appropriate description of the market. A departure from the standard neoclassical model is therefore needed, while retention of its main features would be desirable. Effective competition provides a useful approximation of the concept of perfect competition.

2.3 Effective competition can be defined as the persistent absence of players with market power. In its essence market power is the ability to influence prices as substantiated in the possibility of enjoying persistent excess profits. While perfect competition is a static theoretical concept, effective competition involves a more dynamic practical view. Hence for a market to be deemed effectively competitive it is necessary that this situation be sustainable: the possibility that one or more players can acquire market power is not consistent with effective competition. Effective competition retains the main features of the competitive process in that:

- Agents (buyers or sellers) behave competitively. Agents are said to behave competitively when they assume or believe that they cannot influence prices. This is not directly related to the number of firms, as in theory it is possible to have agents behave competitively when only one firm is present in the market (for example, under the constant threat of competition from potential entrants, as it is in the case of a contestable market). However, competitive behaviour is more likely to be found as the number of firms grows.

- Consumers are offered a variety of products.

- Firms are efficient and able to innovate.

2.4 Market power as mentioned above is a concept developed in the context of economic analysis. This concept should not be confused with Significant Market Power (SMP), which has been developed in the context of regulatory and competition policy. SMP is an established threshold above which a firm is subject to certain regulatory obligations. In other words, SMP is a legal implementation of the economic concept of market power. The relationship between SMP, as the legal substantiation of the concept of market power, and effective competition, as a market condition where market power is persistently not present, may be

defined explicitly in the new framework. The current framework, however, does not provide clarifications on the relation between SMP and effective competition.

2.5 The importance attached to the concept of effective competition is better appreciated in terms of its outcome for users. Users are at the heart of the regulatory approach. Users are better off in an effectively competitive market because they are more likely to find a better deal to meet their needs. Therefore in addition to the traditional structural criteria, consideration is given to particular aspects of concern for the consumer including the level of quality of service in terms of customer care, keen prices, availability of innovative services, the extent of choice available, availability of appropriate information on prices and quality, evidence of efficiency in the provision of service and value for money.

3 Regulatory principles underpinning the approach

Achieving effective competition is in line with two regulatory principles. The first principle states that if a NRA considers that a market is effectively competitive, it shall not impose or maintain sector specific regulatory obligations, provided market power is not likely to arise in the market under observation or in a related market as a result of removing regulation. The second principle states that where a NRA determines that a relevant product or service market is not effectively competitive, it shall impose sector-specific regulatory obligations or maintain such obligations where they already exist. These two principles should form the basis for the 'good regulation' of any industry, and they are implicitly contained in the regulatory framework for electronic communications.

3.1 Effective competition is important with respect to the objective of regulating markets effectively. The use of the concept of effective competition for regulatory purposes can be better understood by defining two principles. The first may be stated in the following way: Where a NRA concludes that the market is effectively competitive, it shall not impose or maintain sector specific regulatory obligations.

3.2 This is in line with the principle that a NRA should cease to promote competition when there is effective competition, provided market power is not likely to arise in the market under observation or in a related market as a result of removing regulation. This principle relates to the benefits of effective competition, that is to say, keen prices, high quality of service, reasonable choice, substantial innovation, etc. Assessment of effective competition is to be based on standard competition analysis, to ensure consistency with the approach taken in considering allegations of anti-competitive behaviour, in particular in relation to market definition and assessment of market power in the communications market. An effective competition review will, however, be concerned with the state of competition in the economic markets that fall within the relevant market rather than the behaviour of a particular company. Therefore an assessment of effective competition will also include, importantly, a focus on customers' utilisation of

choice and customer satisfaction with communications services. When evaluating customers' behaviour, there should be some prudence given the highly discretionary nature of the process, particularly when considering cultural and cross-cultural differences.

3.3 Regulation of a market might be necessary to ensure competition in another, related market. If this is the case, the finding that the latter market is effectively competitive should not lead to removal of regulation in the former market. In general, assessment of effective competition always needs to take into consideration the likelihood that market power might arise, as a consequence of withdrawing regulation, in the market under consideration or in any market retail, wholesale, or otherwise related to it.

3.4 The second regulatory principle may be stated as follows: Where a NRA determines that a relevant product or service market is not effectively competitive, it shall impose sector-specific regulatory obligations or maintain such obligations where they already exist. This is in line with the principle that where competition is increasing but not yet effective, promotion of competition is acceptable.

3.5 Regulatory action should be designed to encourage the evolution to a competitive market. Over regulation (for example setting prices lower than would be obtained in a competitive market) should be avoided since it can stifle incentives to invest and innovate. Action to promote competition should not attempt to promote neither particular technologies nor particular outcomes – a principle which is consistent with the EU regulatory principle of technological neutrality. Promotion of effective competition should not cause prejudice to all those situations where policy objectives suggest a different approach to particular markets (eg, promotion of Information Society or Universal Service).

4 Assessment of Effective Competition

The assessment of the effectiveness of competition in a given market is achieved through the use of a range of indicators, and not by using any single indicator on its own. There are two main parts to the analysis of effective competition. First, market analysis is based on standard competition analysis, starting with market definition and proceeding to perform an economic analysis of market structure and of firms' behaviour. Second, the analysis of the outcome for customers and of the existing barriers to effective choices focuses on how good a deal users are getting in the market. The interpretation of the evidence relating to these two strands of the investigation will lead NRAs to a comprehensive judgement of the extent to which competition is effective in the market.

4.1 The assessment of the effectiveness of competition embraces a wide range of factors, including the identification of the relevant market, the use of competition indicators, and the assessment of whether the market would be effectively

competitive if existing regulations which promote competition were removed.

4.2 The assessment of the effectiveness of competition will consist of two principal strands:

- market analysis, based on 'standard' competition analysis and focussing on the extent to which effective competition in the market segment is working or feasible; and

- analysis of the outcome for consumers and of barriers to effective choice, to establish whether consumers are getting benefits consistent with an effectively competitive market.

Market Analysis

4.3 Reviews of effective competition of a market start with market analysis. The first stage of market analysis is the definition of the market(s) for review. The effective competition reviews will generally be of the established relevant market segments which are under regulation. The need to regulate markets stems from a range of factors which imply that some sort of market failure is observed to be taking place in these markets. This can be caused, among other things, by the presence of operators possessing some degree of market power, or by the presence of different types of externalities.

4.4 Proper market definition is essential for any analysis of the existence of effective competition in an industry. The IRG's draft PIBs on market definition set out the NRAs' common understanding on how to approach market definition. There are mainly two dimensions to take into account in order to define a market: the product/service dimension and the geographic dimension. Within each of these dimensions, demand and supply substitutability need to be considered.

4.5 The competitiveness indicators to be used in effective competition reviews are compatible with criteria used to assess competition issues in other circumstances. The competitiveness of a market structure refers to the ability of individual firms to exercise market power to influence prices or other market conditions. The lower the ability of a firm to influence market conditions, the more competitive the market is.

4.6 The indicators which should be considered in market analysis for the purposes of effective competition reviews belong to two different categories: market structure and supplier behaviour.

4.7 Market structure indicators focus on the structural characteristics of the market. The main issues to be assessed relate to market shares; barriers to entry; potential entry; buyer power; presence of externalities; and asymmetric information. The focal point of the analysis is the concept of market power, as presence of

operators with a material amount of market power means by definition the absence of effective competition in the market.

4.8 Different types of indicators and information can be used to examine market structure. The choice of what particular indicator to use depends on the specific market or situation under observation, thus it is not possible, and it would not be appropriate, to provide prescriptively an exhaustive, ready-to-use list of indicators. Use of a specific type of indicator on its own is not likely to provide definitive evidence on the structure of the market: it is therefore desirable to use as many sources of evidence as possible for the analysis. Standard competition analysis makes use of, among others:

- Concentration indicators. In general, the less concentrated a market is, the more competitive it is.
- Price and price elasticity indicators. The price in a competitive market responds to changes in either demand or supply, but individual behaviour of a firm should affect the price. However, price elasticities cannot provide conclusive evidence on the competitive conditions of the market on their own. High elasticities are compatible both with high competitive pressures but also with monopoly pricing.
- Characteristics of the market in terms of barriers to entry or exit. In particular, forms of exogenous or endogenous sunk costs and presence of constrained inputs.
- Characteristics of the market in terms of switching and transaction costs.

4.9 Supplier behaviour indicators relate to firms' conduct and performance. The main issues to be considered from this perspective are, among others: active competition in price, quality and innovation; scope for tacit or explicit collusion; scope for exclusionary behaviours and/or the possibility of raising rivals' costs; profitability of firms; horizontal or vertical product differentiation. The type of information to be gathered and used is dependent, once again, on the specific market and situation under observation. Standard market analysis makes use of, among others:

- Analysis of price trends, also using a variety of econometric techniques.
- Analysis of profitability, with particular attention to the type of costs that are more appropriate to the specific case.

4.10 Some forms of conduct become a concern when associated to market power: for example, vertical integration can lead to market power being leveraged into retail, or, in general, downstream markets. A number of practices might become a cause of concern in these circumstances: for example, refusal to supply downstream competitors or supply on discriminatory terms.

4.11 Some activities are traditionally within the scope of intervention of the national competition authorities and other judiciary entities. Specific investigations in the context of competition (related with situations of collusion or cartel, for instance) are examples of these kinds of activities. In such cases it may be important to

consider the specific allocation of duties between the NRAs and those entities in each Member State.

Analysis of the Outcome for Consumers and Barriers to Effective Choice

4.12 Whilst effective competition is most likely to meet their needs, consumers are most interested in the benefits of competition – in terms of improved quality, choice and value for money – rather than simply the facility for competition in particular markets. This is the reason why assessment of effective competition should be done by looking directly at the outcome for consumers as well as by means of standard competition analysis It is thereby possible to 'reality check' the conclusions from the competition analysis. This also reflects the regulator's particular responsibilities to consumers.

4.13 Some markets which might be object of analysis do not deal directly with end-users: this is the case, for example, with wholesale markets. In all such cases, it may be still important to take account of the outcome for the consumers, since any distortion of the competitive process in a wholesale or intermediate market is likely to have substantial repercussions at the retail level. A firm which enjoys a position of market power at the wholesale level will therefore be able to distort competition in the relevant retail markets, and indeed any competition problem in wholesale markets may be detectable at the retail level.

4.14 The position of consumers can be analysed from two different perspectives: the outcome they are able to obtain from the market, and the way they behave in the market.

4.15 Assessing the outcome for consumers depends on a range of factors. It may be appropriate to conduct benchmarking exercises to assess whether consumers in a national market are doing at least as well as consumers in comparable economies in terms of price, choice of products and quality. Other indicators can be, inter alia, the range of services available; and the level of satisfaction of consumers (which should be measured as objectively as possible and not based solely on generic consumers' perceptions).

4.16 Barriers to effective choice are mainly linked to the extent to which consumers are informed and can exercise their choice effectively, taking advantage of the outcome for consumers. The indicators to be used relate, among other things, to: ease of access to information, and use of that information to make effective choices; consumers' confidence and knowledge in taking advantage of market opportunities; existence of non-economic barriers to consumers switching suppliers.

4.17 Table 1 below provides an overall picture of the methodology and the type of indicators to be used in effective competition reviews.

Table 1 Effective competition indicators

Type of Analysis	*Type of Indicator*	*Criteria*
Market Analysis	**Market Structure**	Changing market shares; Changes in market structure over time, especially a tendency to reduce concentration; Limited entry barriers which would make the threat of entry a competitive discipline; Exit barriers; Limited barriers to expansion; Limited presence of high switching costs or transaction costs.
	Supplier Behaviour	Active competition in price and quality and innovation; Absence of collusion;* Limited ability of operators with market power in related markets (through vertical or horizontal integration) to lever this market power into the market segment being reviewed;** Firms are not inefficient; Absence of monopoly profits; Extent to which product differentiation relaxes price competition and its effects on the market.
Analysis of the Outcome for Consumers	**Outcome for Consumers**	Consumers shown to enjoy 'best or near best deal' in comparison with consumers in similar economies; A wide range of services available; Consumers satisfied with the quality of service they receive.
	Barriers to Effective Choice	Consumers able to access information and to make effective choices; Consumers confident/ knowledgeable in using information and in taking advantage of market opportunities; Absence of non-economic barriers to consumers switching suppliers (eg, consumers inertia).

***** Absence of collusion: this may be difficult to identify eg a lack of direct evidence of collusion may be due to it being well hidden rather than its absence. Measures in this area need to focus on indicators of outcomes consistent with collusive behaviour and whether there is any previous history of collusion.

** Market power in related markets: operators in the market segment under review may have been determined to have market power in a related market (eg a Significant Market Power determination has been made against them in another related market). The possibility of the operator leveraging this market power into the market segment under review will, if appropriate, be considered as part of the review.

Using Information to Assess Effective Competition

4.18 In interpreting and applying the above indicators, the following factors should be considered:

i. relationship between indicators;

ii. relationship to other competition assessments (Significant Market Power determinations or reviews, investigations under national or European competition legislation, etc);

iii. the impact of existing regulatory controls in the market segment;

iv. the weighting of different indicators; and

v. the quality of sources of data.

(i) Relationship between effective competition indicators. The analysis will typically start with a consideration of structural factors in the market, supplier behaviour, and barriers to effective choice. If, when taken together, these indicate the presence of effective competition, the next stage is to look at the outcome for consumers. Benchmarking comparisons may be used for this purpose: they should, in these circumstances, confirm that the deal for consumers compares favourably with that obtained by consumers in similar economies (taking into account, wherever needed, cross-cultural differences and possible distinctive consumption patterns between Member States). If, for example, international comparisons indicate that consumers do not get a good deal in comparison to consumers in other countries, competition in the market may not be fully effective and the regulator may need to continue to promote it. In conducting such benchmarking clearly it is necessary to ensure that all operators are properly comparable, in particular not distorted by national circumstances or presence of subsidies

(ii) Relationship to other competition assessments. There are other types of competition assessment which should be borne in mind when carrying out effective competition reviews: among them, Significant Market Power (SMP) and competition investigations. While different market segments may be used for each of these competition assessments, depending on the specific case and allegations under investigation, it is necessary to ensure the highest degree of consistency possible between market definition exercises.

(iii) Assessing the impact of existing regulatory controls in a market segment. A key consideration that will need to be taken into account in making an assessment of effective competition is the impact of existing regulations which promote competition in the market segment. It should be assessed whether competition would be self-sustaining if these controls – such as those triggered by SMP determinations – were lifted. Some markets might be considered effectively competitive only as a result of regulation of

related markets: in this case it would be inappropriate to withdraw regulation in the related market once the one under observation is found to be effectively competitive. Conversely, when a market is found to be not effectively competitive it is necessary to take into account whether one or more players might be able to leverage their market power in a related market. In some instances effective competition in a market is attainable only by introducing regulation, either in that market or in a related market. This assessment will clearly involve some exercise of judgement as it depends on taking a view of likely future behaviour. In doing so the regulator should take into account all relevant available evidence.

(iv) Weighting of different indicators. The indicators set out in Table 1 provide a framework to assess whether there is effective competition. Clearly it will not be appropriate to use the indicators mechanistically and in making its assessment a regulator will need to consider the relevance of each indicator in regard to the circumstances of the market segment being assessed. It is quite possible that the criteria used will not all indicate a straightforward conclusion: a final judgement will involve weighting the various criteria and inevitably greater weight will be placed on some rather than others, with some criteria having relatively little importance for some markets. Weighting of different criteria is unlikely to be a precise exercise given the value of the assessments involved. The assessment may therefore take the form of identifying the relative importance of different factors.

(v) Quality and sources of data. Clear, objective information will be a key component of the review process. The regulator may want to carry out market research where necessary and ask stakeholders to supply relevant data from research they have undertaken or have obtained from other sources. This will add to the quality and completeness of the data available.

4.19 A key consideration is the sustainability of effective competition. Regulation should aim to make effective competition self-sustainable, and should be progressively withdrawn once it is recognised that the market can function in an effectively competitive way on its own. When this happens, regulators need to monitor the evolution of the market even though active regulation is withdrawn.

4.20 Information can be collected from a range of sources, including the following:

- telecoms operators and service providers;
- consumer groups;
- market research – commissioned by the regulator; and
- reviews of published research.

4.21 The regulator may wish to focus early attention on those market segments where there is currently significant regulation promoting competition or where it has significant concerns about the lack of effective competition. These market

segments may vary from country to country. Although the review process will tend to focus on market segments which are already regulated, some companies with market power in one market segment may be able to exercise it in other markets in which they would not otherwise have market power. Thus any review of whether a market is effectively competitive will also need to take account of the extent to which markets are adjacent.