For Official Use DAF/COMP/WD(2012)28

Organisation de Coopération et de Développement Économiques
Organisation for Economic Co-operation and Development 31-May-2012

English - Or. English

DIRECTORATE FOR FINANCIAL AND ENTERPRISE AFFAIRS
COMPETITION COMMITTEE

DAF/COMP/WD(2012)28
For Official Use

ROUNDTABLE ON MARKET DEFINITION

-- Note by the Delegation of the European Union --

This note is submitted by the delegation of the European Union to the Competition Committee FOR DISCUSSION at its forthcoming meeting to be held on 13-14 June 2012.

JT03322670

English - Or. English

ROUNDTABLE ON MARKET DEFINITION

-- Note by the European Union --

1. Introduction

1. The definition of the relevant market is not an end in itself. However, it is a central tool and starting point to identify situations where there might be competition concerns. It is an important qualitative first step in a structured effects based investigation as it enables to scope the competitive landscape and identify the relevant (potential) competitors. By relying on mostly readily available data already collected by firms, it helps to focus the more data intensive effects analysis on the relevant issues. The necessity of defining markets has been part of the competition policy of the EU from its inception and pre-condition both to assess dominance under Article 102 TFEU and effect based infringements under Article 101(1) and (3) TFEU[1] as well as an essential part of the EU Merger Control Regime[2].

2. In most cases market definition and market shares give a good first overview of the competitive situation and a proxy of the market power enjoyed by firms. Therefore, it is an important starting point in the assessment. However, this by no means implies that the market definition should be understood as constituting the full assessment of the competition between the companies. The EU competition analysis in antitrust and merger cases is not limited to market definition and market shares, but is a fact specific process using also other economic tools to complement and refine the analysis where appropriate.

3. In October 1997 the Commission adopted a guidance notice to set out the basic principles on the definition of the relevant market ("Notice on Market Definition")[3]. It is applicable both to mergers and to antitrust cases under Article 101 and 102 TFEU. The success of the Notice on Market Definition is shown by the fact that since its adoption it has been used and referred to extensively while allowing the Commission to flexibly update its practice. As explained in more detail below, it contains the basic guidelines for defining relevant markets under EU law without restricting the Commission's ability to take into account new economic tools if, depending on the individual case, they help to refine the analysis.

4. This paper will first explain the Commission's basic principles for defining the relevant market. Afterwards, it will shed some light on the current EU practice in respect of defining product and geographic markets. Most of the recent developments in the area of market definition are in the area of the

---

1 Market definition plays a different significance in Article 101 TFEU cases than in Article 102 cases. See e.g. Joined Cases T-259/02 to 264/02 Raiffeisen Zentralbank Österreich and Others v Commission [2006] ECR II-5169, paras 172-178, confirmed by ECJ in Joined Cases C-125, 113, 135 and 137/07 P Erste Group Bank AG v Commission [2009] ECR I-8681, paras 60-63.

2 "*Proper definition of the relevant market is a necessary precondition for the assessment of the effects on competition of the concentration*", Joined Cases C-68/94 and C-30/95 Kali & Salz [1998] ECR I-1375, para 143; Case T-342/99 Airtours plc v Commission [2002] ECR II-2585, para 19; Case T-151/5 NVV v Commission, [2009] ECR II-1219, para 51.

3 Commission Notice on the definition of relevant market for the purposes of Community competition law, OJ C 372, 9.12.1997.

EU Merger Regime where the definition of the relevant market plays a central role in the analysis. Finally, some specific markets will be discussed where the relevance of market definition might vary.

5. This paper draws on the guidance set out in the Commission's Notice on Market Definition and the EU case law to stimulate this roundtable's discussion. However, nothing in this paper should be read as in any way qualifying the Notice or the respective case-law, or affecting the European Commission's position on any particular case.

2. Definition of the relevant market

6. The definition of the relevant market comprises defining a relevant product and a relevant geographic dimension/market. The relevant product market is understood as a market comprising "all those products and/or services which are regarded as interchangeable or substitutable by the consumer, by reason of the products' characteristics, their prices and their intended use"[4]. The relevant geographic market is defined as comprising "the area in which the undertakings concerned are involved in the supply and demand of products 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 in those areas"[5].

7. The main purpose of market definition is to identify in a systematic way the competitive constraints that the undertakings involved face[6]. Firms are subject to three main sources of competitive constraints: demand side substitutability, supply side substitutability and potential competition. From an economic point of view, for the definition of the relevant market, demand side substitution constitutes the most immediate and effective disciplinary force on the suppliers of a given product, in particular in relation to their pricing decisions[7]. However, analysis of both demand and supply side substitution is required in order to establish relevant market[8]. The weakest competitive constraint, potential competition, will usually be assessed at the later stage of the competitive assessment[9].

3. Demand substitution

8. The goal of the assessment of demand side substitutability is to identify the group of products or services that are alternatives in satisfying the needs normally served by the product in question in the eye of the relevant customers. The respective product characteristics, product use and prices are usually important factors in such an assessment.

9. The classic economic model to assess the demand substitution is the SSNIP (Small but Significant Non-transitory Increase in Price) test, i.e. by assessing, whether customers would switch to

---

4 *Ibid,* para 7.

5 *Ibid,* para 8.

6 *Ibid,* para 2.

7 *Ibid*, para 13.

8 Case 6/72 Europemballage Corp & Continental Can Co Inc v Commission [1973] ECR 215.

9 Potential competition is usually not taken into account when defining markets since the conditions under which potential competition will actually represent an effective competitive constraint depend on the analysis of specific factors and circumstances related to the conditions of entry. If required, this analysis is only carried out at a later stage, in general once the position of companies involved in the relevant market has already been ascertained, and when such position gives rise to concerns from a competition point of view, c.f. Notice on Market Definition, para 24.

other readily available substitute products or to suppliers located elsewhere in response to a hypothetical small (5-10%) but permanent increase in price of the product in question.[10] According to the conceptual framework, a hypothetical small but significant permanent price increase is applied to the respective product in question. In the situation where the prices of the alternative products stay the same, if such an increase in price would lead customers to switch to other alternative products and the resulting loss of customers would make such increase unprofitable, it means that the product/set of products of the firm(s) in question does not constitute a separate market and that there are other products that pose sufficient competitive constraints on it. Thus, further products are added to the relevant market, and the test is applied until the increases in prices are profitable and the market is worth monopolising.[11]

10. The conceptual approach taken in the context of geographic market definition is the same and is also based on the SSNIP test. It assesses the extent to which the customers of a product in question would switch to suppliers located in other territories in response to a hypothetical small but permanent increase in price of that given product.

3.1 Supply substitution

11. In addition to assessing the demand side substitutability, the Commission regularly analyses the supply-side substitutability when defining markets. However, generally the effects of supply-side substitution have to be at least "equivalent to those of demand side substitution in terms of effectiveness and immediacy" to significantly affect the outcome of the market definition exercise[12]. That is why in practice, the analysis of the supply-side substitutability significantly influences the outcome of the market definition exercise only in a few cases.

12. Supply side substitution seeks to identify the possibility of customers to switch to alternative suppliers. The question is whether other suppliers would start producing the product in question if there is a permanent price increase by 5-10% in the market, i.e. whether firms are able and willing to switch their production without incurring significant additional costs or risks in a short time period.

13. Important factors to consider for assessing the ability of potential suppliers to switch production in a short time frame are the technical feasibility, regulatory and other barriers etc. In addition, it has to be analysed if the firms in question have the ability to switch production without incurring significant additional costs or risks, e.g. considerable investment associated with such switching including the respective opportunity costs.

14. When evaluating the geographic dimension of the market, supply substitution relates to the possibility of other suppliers, located outside a certain geographic area, to start supplying that area in the short term and without incurring significant additional costs or risks.

15. If supply-side substitutability would entail the need to adjust significantly existing tangible and intangible assets, additional investments, strategic decisions or time delays, the Commission will not

[10] Notice on Market Definition, para 17.

[11] *Ibid*, para 17-18.

[12] Notice on Market Definition, para 20. See Case IV/M.166 Torras/Sarrio (paper); Case IV/M.458 Electrolux/AEG: Case T-65/96 Kish Glass and Co LTD v Commission [2000] ECR II-1885 (Case C-241/00 P Kish Glass and Co Ltd v Commission [2001] ECR I-7159); Case COMP/38.784 – Wanadoo España vs. Telefónica [2007], para 147; COMP/M.5046 – Friesland Foods/Campina, para. 158.

include such products into one product market. In such cases the effects of supply-side substitutability are examined at a later stage.[13]

4. The process of defining the relevant market in the EU practice

16. In order to define the relevant product and geographic market, the Commission is using different qualitative and quantitative tools depending on the individual factors of the case.

17. The most common and more easily available evidence is of a qualitative nature. The Commission takes amongst others into account the information it receives from main customers and main companies in the industry, or the relevant professional associations or undertakings involved through questionnaires, meetings or telephone conferences. Also end-consumer surveys have been used in the past (e.g. COMP/M.4439 Ryanair/Aer Lingus). Furthermore, the Commission is relying on internal documents of the respective undertakings containing internal or external marketing studies, studies about barriers to entry or costs associated with switching demand to potential substitutes, as evidence for defining the relevant market[14]. Also inspections on the premises of the parties, their customers and/or their competitors might be carried out by the Commission to gather the respective information[15].

18. In addition, the Commission uses increasingly quantitative economic tools to refine its market definition analysis. These include price correlation analysis[16] (e.g. Case COMP/M.5153 Arsenal/DSP, Case COMP/M.4799 OMV/MOL), critical loss analysis[17] (Case COMP/M.4734 INEOS/Kerling), past shocks analysis – natural experiments[18] (Case COMP/M.5335 Lufthansa/SN Airholding) and demand estimation (Case COMP/M.5658 Unilever/Sara Lee, Case COMP/M.5644 Kraft/Cadbury[19]). The usage of these tools depends to a large extent on the availability of the necessary data, the specificities of the case in question and the respective time constraint of the procedure.

13 Notice on Market Definition, para 23.

14 Cf. *Ibid*, para 37-43.

15 *Ibid*, para 34.

16 A price correlation analysis basically examines the extent to which the prices of two products move together over time. If the price of one good constrains the price of the other, the two price series follow usually a similar pattern. The interpretation of price correlation analysis raises at least two substantial complications, namely how high does a correlation coefficient have to be for two products or regions to be in the same relevant market and how can we limit the possibility that a high correlation is driven by some common influence other than competitive interaction (known as spurious correlation).

17 The critical loss analysis is estimating how much the hypothetical monopolist's sales would have to fall in order to make the 5-10% price increase unprofitable. A price increase has generally two opposing effects on the hypothetical monopolist's profits: sales will fall as some consumers substitute away/stop buying and higher margins on all of the remaining sales. Critical loss estimates the maximum amount by which sales can fall in response to a price increase while making sure that the profits do not decline – this is the point at which the two effects on profits exactly cancel each other out.

18 A natural experiment analyses past events or shocks in a market to observe whether these can teach us something about competitive dynamics in that market. These past shocks/events can be, for example, new product launches, market entry, advertising campaigns, input cost shocks, strikes, regulatory intervention, tax shocks or exchange rate movements.

19 In the case COMP/M.5644 Kraft/Cadbury, the Commission did not conduct in first phase a demand estimation itself but analysed the demand estimation provided by the notifying party by testing the sensitivity of the results with respect to the characteristics included as controls in the regression, the estimation period, the nest classification, the market elasticity/size of the outside good, etc.

19. The market is defined on a case by case basis. The Commission makes an overall assessment of the case on the basis of all available evidence. There is no hierarchy between different types of evidence or different sources of information[20]. The types of evidence used and their importance depend on the characteristics of the industry and the products in question as well as the availability of the necessary quantitative and qualitative data and the potential time constraints of the investigation. The Commission follows on open approach to any relevant qualitative and quantitative evidence aiming at making an effective use of all available information[21].

20. Also the nature of competition law issues under investigation might affect the type of evidence used as well as the result of the analysis. For example the different time horizon or relevant time period between the prospective merger analysis and the investigation of potential anti-competitive past behaviour in an antitrust case under Article 102 TFEU might lead to different geographic market definitions for the same product market[22]. Also in merger cases the substitutability analysis would normally be based on the prevailing market prices[23], while in the case of abuses of dominant positions, the Commission might sometimes have to take into account that the prevailing market prices have already been substantially influenced by the potential anti-competitive behaviour of the respective undertaking[24].

21. In the case of multiple conceivable market definitions, it is general Commission practice to leave the market definition open if under all alternatives the operation in question does not raise competition concerns[25].

5. Markets with distinctive characteristics

22. Markets can have a special characteristic which makes the exact market delineation difficult or otherwise makes the market definition exercise more demanding. These include sectors with highly differentiated product characteristics, with two-sided platforms or with a high rate of innovation. The following short analysis shows that the recognised difficulties in these sectors can be adequately addressed without making the definition of the relevant market superfluous.

5.1 Differentiated product markets

23. Products destined for similar uses, but with quite different characteristics are called differentiated products. Differentiated products exist where customers have different preferences for the various product offerings. In general, products can be differentiated because of intrinsic quality differences (like e.g. fuel efficiency in cars, size of the hard drive in computers, after-sales services) or on grounds of perceived quality differences (reputation of a brand in consumer goods).

---

20 Notice on Market Definition, para 25. See also Case T-342/07 Ryanair Holdings v Commission [2010] ECR, paras 156-158: "*There is no hierarchy between technical and non-technical evidence*".

21 Notice on Market Definition, para 25.

22 Notice on Market Definition, para 12.

23 This might be different in merger cases involving potential competition and/or newly liberalised markets, where there is evidence for the possibility of a "cellophane fallacy" in the market. See case COMP/M.5096 RCA/MAV Cargo, paras 29-31.

24 Notice on Market Definition, para 19. C.f. COMP/C.34.579 MasterCard.

25 Notice on Market Definition, para 27. The Commission can also leave the market definition open if the result of the competitive assessment is the same under all conceivable market definitions.

24. Differentiated markets are usually characterised by a continuum of substitution and a varying intensity of competition interaction between the products in question. This increases the challenge to identify precise boundaries of the relevant market. While much has been written in academic literature on how best to define markets, the fact is that in many differentiated product industries, there is no clearly right way to draw boundaries that are not to some extent inevitably arbitrary.

25. The difficulties in establishing the precise relevant market are remedied by taking into account in the competitive assessment that the chosen market definition may be less informative than in other cases. Market shares are also less informative in the case of differentiated product markets[26] than in homogeneous product markets. Indeed market shares may over- or underestimate the effects of a transaction depending inter alia on the closeness of substitution between the relevant products. However, although market shares might not fully reflect the competitive interaction, they can still give an indication of the market power of the party/parties in question[27]. In addition, the definition of the relevant market helps to scope the competitive landscape and structure the subsequent competitive assessment.

5.2 Two-sided platforms[28]

26. Regarding two-sided platforms, it has been pointed out that the application of the SSNIP test in respect of market definition cannot be usefully applied to one side of the platform in isolation. For a two-sided platform, an increase in the price on one side has implications for demand on the other side and thus for the overall profitability of the platform and impact of the price increase itself. A SSNIP test based on one side of the platform alone will not capture the effects of the constraints on a price increase from the interdependence of demand on both sides and can lead to a market being defined too narrowly. A similar problem applies to the application of critical loss analysis (CLA) which is often used in conjunction with the SSNIP test.

27. However, as Ordover (2007) explains[29], this is not an unfamiliar complication: in the presence of complementary components a hypothetical monopolist must consider how a price increase of one component may lower demand, and revenues in the market for its complement. Of course it is somewhat more complicated when the link depends on inter-group network effects since generally the hypothetical two-sided platform must not only find the optimal price level but also the optimal price structure. However, these problems are not insurmountable and (certainly as a guiding concept) both the SSNIP test and CLA can still be applied with modifications[30]. The EU case practice shows that it is possible and useful to define the relevant markets also in two-sided platforms and to take the specificities into account in the economic assessment[31].

---

26 For differentiated products, sales in value and their associated market share will usually be considered to better reflect the relative position and strength of each supplier than sales in volume, Notice on Market Definition, para 55.

27 COMP/M.5659 Unilever/Sara Lee, para 158. See also COMP/M.5644 Kraft/Cadbury.

28 Two-sided markets/platforms refers to a situation where two distinct user groups interact with each other through a common platform and the value of joining the platform depends on their expectations about the network size.

29 Ordover, J.A. "Comments on Evans&Schmalensee's *The Industrial Organization of Markets with Two-Sided Platforms*", Competition Policy International, Vol 3, Number 1 (2007).

30 See for more detail on the EU assessment in respect of two-sided platforms DAF/COMP(2009)20.

31 Recent commission cases are Commission Case COMP/M.4731 Google/DoubleClick; Case COMP/M.5727 Microsoft/Yahoo, Case COMP/M.6166 Deutsche Börse/NY Stock Exchange.

5.3 Markets with a high rate of innovation and technology markets

28. The Commission has investigated a number of markets with a high rate of innovation and a significant importance of R&D. The dynamics of these industries were taken into account in the market definition exercise and even more in the competitive assessment[32]. As these markets are more apt to change due to technological developments, the relevant market definition can vary in such markets depending on the time horizon which is in the focus of the investigation. Also market shares might be less indicative depending on the individual case and the technological development stage. However, these factors can all be taken into account in the market share interpretation.

29. In some cases, the Commission has defined a "technology market" which is upstream of the relevant product market[33]. For example, in the merger case COMP/M.5675 Syngenta/Monsanto, the Commission made a distinction between (i) the upstream market for the trading (namely the exchange and licensing) of varieties (parental lines and hybrids) and (ii) the downstream market for the commercialisation of hybrids[34]. The methodology for defining technology markets follows generally the same principles as the definition of product markets. However, it can be more difficult to compare technologies, to assess their substitutability or to take into account technologies that are currently only used in-house and/or are not or only to a very limited extent being licensed. Similarly, it may be more difficult to calculate market shares on a technology market. There may be a lack of data concerning each technology's share of total licensing income from royalties and the available data may give a distorted picture due to cross-licensing and other non-monetary cross-trading. However, generally these will not be insurmountable problems and more a matter of finding the appropriate proxies[35].

6. Other analytical tools like UPP

30. It has been mentioned in academia that other analytical tools like the "Upward Pricing Pressure" concept ("UPP")[36] could complement or even replace the traditional market definition exercise.

32 See Case COMP/M.6203 Western Digital/Viviti Technologies; COMP/M.5984 Intel/McAfee; COMP/M.5529 Oracle/Sun; COMP/M.5421 Panasonic/Sanyo.

33 According to the Commission Guidelines on the application of Article 81 of the EC Treaty to technology transfer agreements [101 TFEU], OJ C 101, p. 2, 27.4.2004, para 23, "*technology markets consists of the licensed technology and its substitutes, i.e. other technologies which are regarded by the licensees as interchangeable with or substitutable for the licensed technology, by reason of the technologies' characteristics, their royalties and their intended use.*"

34 See also case COMP/M.5406 IPIC/MAN Ferrostaal AG where the Commission defined besides a market for the production of high-grade melamine also an upstream technology market for the supply of melamine production technology.

35 For example, for the purpose of calculating the market shares for the safe harbour under the Commission Regulation No 772/2004 on the application of Article 81 (3) of the Treaty to categories of technology transfer agreements ("TTBER"), OJ L 123, p. 11, 27.4.2004, market shares on the technology market are defined as market shares on the product market of the products produced with the technology in question. See Guidelines to the TTBER, OJ C 101, p. 2, 27.4.2004, paras 19-25.

36 The UPP concept focuses on the value of the diverted sales as a result of the number of units diverted multiplied by the margin between price and incremental cost on that product. A higher UPP as the result of higher diversion ratios and/or higher margins can indicate a significant change in the pricing incentives. The UPP method is very close in spirit to other methods focusing on the elasticity of demand and closeness of substitution as it heavily relies on the concept of diversion ratios. However, it reinterprets the difference in pricing incentives between the single firm and the independent firms from the cost side, in particular, from the angle of opportunity costs.

31. Whereas the Commission's Merger Guidelines do not explicitly refer to the UPP concept, they do refer expressly to the use of diversion ratios. The Merger Guidelines mention that high pre-merger margins may make significant price increases more likely[37]. Generally, the concept of "closeness of competition" between the respective undertakings is one of the key points of the Commission's assessment practice. It is open to allow the UPP concept in those cases where it can be a useful additional tool.

32. The Commission has undertaken a UPP style analysis as additional evidence in some differentiated product markets where the necessary data and the time was available.[38] It has also used other even more data and time demanding analysis like merger simulations as evidence in some cases[39].

33. However, even when UPP is a useful tool, it cannot replace the need for market definition. Not only is the concept of market definition inherent in the EU Merger Control Regime, it is in practice in most cases significant less time and data intensive to define the relevant market and calculate the market shares than perform an UPP analysis. Additionally, UPP is only one additional element of evidence for the analysis of substitution and merger effects with strength and weaknesses between other qualitative and quantitative evidence. It can therefore only be one "additional piece in the puzzle".

7. Conclusion

34. With the words of former Commissioner Monti, defining markets is "a cornerstone of competition policy, but not the entire building. Market definition is a tool for the competitive assessment, not a substitute for it"[40].

35. The importance of market definition and the calculation of market shares vary according to the individual case. However, it is a necessary and useful first indication of the market structure and the competitive situation in the market. The EU practice shows that the Commission is open to new economic tools like UPP or merger simulation if they can help to refine the assessment. However, these economic tools can only complement the traditional analysis and therefore do not make the defining the relevant market superfluous.

37 Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentration between undertakings, OJ C 31 p.5, 5.2.2004, paras 28-29.

38 See e.g. COMP/M.5658 Unilever/Sara Lee Body Care.

39 COMP/M.5658 Unilever/Sara Lee Body Care.

40 Speech by Mario Monti, "Market definition as a cornerstone of EU Competition Policy, Workshop on Market Definition, Helsinki Fair Centre, 5 October 2001.