Abstract: Market definition is a specific and important tool used in European competition enforcement practice to identify boundaries of competition between undertakings; it is used both in antitrust and merger cases. The EU Market Definition Notice was adopted in 1997 in conditions of conventional markets with relatively stable market structures. With respect to recent development, especially digitalisation and globalisation of economy, the Commission launched the process of evaluation of the Notice in March 2020, and the revised notice has to be published in Q3 2023. Having in mind profound changes challenging various aspects of the original market definition, the article lists at first the most important features of digital economy, especially importance of innovation conditioning rapid changes of the market. Regarding the fact that the main principles of market definition were confirmed as sound until now, the short characteristics of the relevant market follows. The core part of the article aims to present and discuss different approaches to market definition, methods of market assessment included, taking into account the corresponding case law and legal writings reflecting digital circumstances making markets interconnected like never before. The article confronts also sometimes differing opinions of theory and practice in approach to market definition. Analysis is carried out with the ambition to find out whether it is possible – based on case specific approach of competition authorities – to draw general conclusions necessary for coherent conception of the revised market definition, or at least unifying recommendations for the legal practice for the sake of legal certainty. Outcomes of the analysis are summarised in the conclusion, in context with the draft market definition notice.

Key words: Competition; Relevant Market; Digitalisation; Digital Platforms; Zero Price Market; Test for Market Definition, European Competition Law

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1. DIGITALISATION OF ECONOMY

Modern era has brought profound changes in functioning of economy and the whole society. Usually, the term „new economy“ is used to cover „rapid innovation and technological change, such as electronic communication, software, computer hardware, search engines, internet based business, social media, biotechnology and aerospace“ (Jones and Sufrin, 2016, p. 48). Key characteristic features of the digital economy have to be taken in account:
- extreme returns to sale,
- network externalities,
- the role of data (Crémer, de Montjoye and Schweitzer, 2019).

These new conditions, of course, bring new challenges, first of all for competition policy that has to ensure and “promote pro-consumer innovation in the digital age.” (Crémer et al., 2019, p. 2). Despite changes brought about by digital revolution, the authors of above mentioned report are convinced that „basic framework of competition law, as embedded in Articles 101 and 102 of the TFEU, continues to provide a sound and sufficiently flexible basis for protecting competition in the digital era.” (Crémer et al., 2019, p. 3). On the other hand, new development, according to them, requires some adaptation in competition enforcement, established concepts and methodologies included, but there is no doubt that „competition policy is needed in the new digital world” (Crémer et al., 2019, p. 14). To be able to cope with new forms of anti-competitive behaviour to which dominant digital firms¹ may be prone, it is first of all necessary to change the approach to market definition and in general, as the authors of the report suggest, „put less emphasis on analysis of market definition, and more emphasis on theories of harm and identification of anti-competitive strategies” (Crémer et al., 2019, pp. 3-4).

2. RELEVANT MARKET AND ITS ROLE IN COMPETITION ENFORCEMENT

Relevant market assessment is a specific and important tool of competition law; main principles of its ascertaining were developed by the case law² and later on summarised in the Commission Notice on the definition of relevant market ([1997] OJ C 372). Competitive analysis usually starts with assessment of the relevant market representing a tool to identify boundaries of competition between undertakings. So, it serves as a framework for competition law application. It helps to identify competition constraints the undertakings are exposed to, in other words, to identify the real competitors of the respective firm.³ On the other hand, „(...) market boundaries are helpful in identifying the anticompetitive effects of firms engaging in exclusionary conduct or merging to thwart the competitive process.” (Oxenham Allen, Christensen, Conrad, Grimmer and Pratt, 2020, p. 1). Relevant market is a dynamic concept; the competition authority has to ascertain precisely, where are the boundaries of the relevant market. (Patakyová et al, 2022).

Relevant market is an intersection of the relevant product market and the relevant geographic market. Sometimes, it is necessary to consider the temporal market, this is the case of products available in particular time of the year (Steiner and Woods, 2009). Determination of the relevant product market is based on identification of products/services that are substantially interchangeable. „It includes identical products, or products considered by consumers to be similar by reason of their characteristics, price or use” (Steiner and Woods, 2009, p. 691). The case law shows, how tricky the assessment of the relevant product market can be. For instance, in the Continental Can case⁴ it was necessary according to the European Court of Justice (now Court of Justice of the European Union) to define products in question, not only by the fact that they are used for packing, but the characteristics of the packed products had to be taken into

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¹ To the largest firms in the digital sector belong e.g. Apple, Amazon, Microsoft and Alphabet (Crémer et al., 2019).
² For example see ECJ, judgement of 9 November 1983, NV Nederlandsche Banden Industrie Michelin v Commission of the European Communities, case C-322/81, ECLI:EU:C:1983:313.
account as well (e.g., meat products, fish products) (Steiner and Woods, 2009). Another good example is the famous UBC case, where relevant product market were bananas differing in various aspects from other fresh fruit. Substitution of products is usually evaluated both on demand side and the supply side of the market (cross-elasticity of demand, cross-elasticity of supply). Again, it was the Continental Can case, where the European Court of Justice insisted on considering the substitution also on the supply side (Steiner and Woods, 2009). Also, potential competition has to be taken into account. “The relevant geographic market comprises 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 homogenous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different in those areas.” So, the geographic market depends on area, in which the consumers are willing to shop and the suppliers are willing to deliver. It can be influenced by cost of transportation, as well as habits and preferences of the consumers (Steiner and Woods, 2009).

Determination of the relevant market is a starting point both in antitrust and merger cases. Having in mind the principle of dominance, it is necessary first to identify the relevant market in order to find out whether the undertaking concerned enjoys a position of economic strength enabling it to prevent effective competition and to act independently of its competitors, customers and its consumers. Such a position is likely to arise in case of large market share of the firm. Relevant market has to be ascertained also in some cases of agreements restricting competition and also merger cases, although there may be difference between markets defined for prospective analysis typical for merger cases and past analysis typical for antitrust cases.

For identifying, the product relevant market is of great importance to assess whether the customers would switch to the substitutes or other suppliers in response to a hypothetical small (in range of 5% to 10%) but permanent relative price increase (SSNIP test).

3. DIGITAL PLATFORM ENVIRONMENT

The new economy is the economy of platforms. It “includes many two- (or multi-) sided markets (...) these markets are often described as ‘platforms’, although the exact definition of what constitutes a ‘platform’ is a matter of dispute” (Jones and Sufrin, 2016, p. 49). Compared with traditional market in platform economy undertakings compete on innovation rather than price. Digital environment characterised with its typical features, especially the role of data and access to them, shifts competition in market to competition for market (Jones and Sufrin, 2016).

According to the special advisor report of the European Commission (Crémer et al., 2019) due to the fact that in the new environment of digital platforms market boundaries might be less apparent than in the conventional economy, there should be less emphases put on market definition; the attention should be concentrated on anti-
competitive strategies (Crémer et al., 2019). The idea of looser form of market definition was articulated even in the past; some authors proposed that market definition should be focused more on the constraints than delineating exact boundaries between markets (Evans and Noel, 2005, cited as in Approach to market definition in a digital platform environment, 2020).

Although market definition is considered to be an initial step in competitive analysis, some authors argue that “market definition is not always a legal requirement for antitrust claims (...) and [some] claims provide illustrations of why market definition can inform competitive effects, but not necessary determine them” (Oxenham Allen et al., 2020, p. 2). This opinion acknowledges the economic significance of market definition as a base for competitive effects analysis, but at the same time points out that several enforcement authorities „have moved away from a market definition – centered approach (...) and e.g. in merger review „competitive effects are the foundation (...) not market definition.” (Oxenham Allen et al., 2020, p. 2).

3.1 Approach to Market Definition in the Digital Economy

As there are different kinds of platforms, offering different content to their customers, an universal approach to market definition does not exist and the competitive analysis should therefore be specific in each case, otherwise there is a risk of misleading definition (Russo and Stasi, 2016). Russo and Stasi (2016) draw attention to the fact that the same corporation can act on different markets, use different business models and the same market can be used in different ways; all these facts have to be taken into account.

Except multi-sided platforms, it is often necessary to consider further issues that might be important for market definition in digital circumstances, among them, Robertson (2017) underlines the importance of product differentiation, the online/offline paradigm and competition in innovation.

Although attention is usually concentrated on the product side of the relevant market, digital markets can challenge also its geographic dimension; it seems „that online market place makes geographic location irrelevant to some degree, especially in relation to digital services” (Robertson, 2017, p. 135).

3.1.1 Two- (Multi-) Sided Platforms

Concerning digital platforms, a question to be solved is, whether there is one market or two interrelated markets. Online platforms usually operate as two- (or multi-) sided markets and their nature has a decisive influence on competitive analysis. A typical feature of a two-sided market, as seen by Evans, is that a platform sells two different products to two different groups of customers; demand of both sides of the market is interdependent (Evans, 2003, cited as in Filistrucchi, Geradin, van Damme and Affeldt, 2013). Media markets, payment cards market and online intermediaries are usually considered to be the most famous representatives of two-sided markets (Filistrucchi et al. 2013); so, „platforms or multi-sided markets are a feature not limited to digital markets (...)” (Robertson, 2017, p. 136). Although presence of these markets is quite frequent in digital circumstances, there is no „universally accepted or valid criterion to carry out market definition” in these markets and „decisional pratice has not yet endorsed any

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8 There are two-sided and multi-sided platforms, transaction (e.g., payment cards) and non-transaction platforms (e.g., social media sites). Another categorisation is offered by Mandrescu; except for transaction and non transaction platforms, he distinguishes between matching and audience providing platforms. (2022).
platform typology as a decisive criterion for market definition” (European Commission, Directorate-General for Competition, 2021, p. 11).

Some authors consider „distinction between two-sided transaction and non-transaction markets (...) crucial for the definition of the relevant market” (Filistrucchi et al., 2013, p. 8). They suggest to define only one market in two-sided transaction markets (such as e.g., payment cards market), whereas two (interrelated) markets in two-sided non-transaction markets (e.g., newspaper market) (Filistrucchi et al., 2013). They argue that in media markets, where firms sell content and advertising space, newspapers and TV could act as substitutes on the advertising side, but not on the reader’s side (Filistrucchi et al. 2013).

Compared to that, in payment cards market „defining a single market implies defining the market for services to a transaction. The product that is offered is the possibility to transact through the platform” (Filistrucchi et al., 2013, p. 11). In practice, the transaction is usually cleared at the level of two banks, the one of cards-holder and the second of merchant (Filistrucchi et al., 2013).

Yet, the approach of case law to the definition of relevant market differs from that of legal writings. E.g., in Mastercard⁹ „the Commission recognised the two-sided nature of the market but explicitly refused to define a single market encompassing both card-holders and merchants, stating that: «Two sided demand does not imply the existence of one single 'joint product' supplied by a 'joint venture'»” (Filistrucchi et al., 2013, p. 19). Instead of that, three different markets were identified:

- the network market with competition among different payment systems (upstream market) and two downstream markets:
- the market for „issuing services” with banks competing for customers among card-holders;
- the market „for „acquiring” with banks competing for customers among merchants.

The main argument for the adopted solution was the complex vertical structure of the market and the differentiated nature of the relevant product (payment, issuing and acquiring services). Last but not least was the consistency with the previous practice (newspaper market). All these arguments were looked upon as unconvincing by Filistrucchi et al. (2013, p. 26) and mixing together transaction and non-transaction markets.

Problem of market definition in the case of multi-sided platforms often operating in the digital sphere is addressed also in the draft notice on the definition of relevant market. Draft notice acknowledges both approaches to market definition but, „unfortunately there is not much there that would indicate when the market definition would call for one rather multiple relevant markets – which is exactly where guidance is needed.” (Mandrescu, 2022). As Mandrescu (2022) states, there remain also some other open questions, such as hybrid forms of platforms entailed in digital platforms that cannot be categorised based on these categories only.

Comparing two different approaches to market definition, it has to be said that transaction and non-transaction markets categorisation as decisive theoretical criterion for market definition is clear and transparent on one hand, but too general on the other

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hand. As seen from application practice, the opposing opinion leads to a more refined definition of the relevant market, taking into account not only complex vertical structure of the market, but also different nature of the concerned services and different kind of competition and competitors on various levels of the market.

3.1.2 „Zero price” problem and attention markets

Another issue raised in connection with digital platforms is the „zero price” problem. Although a zero price problem is not a new one, zero price business models became widespread with the rise of Internet (Oxenham Allen et al., 2020), as many companies offer free products and services. In fact, it does not mean, that there is no cost to consumer, but instead of monetary payment, consumer „pays” with „personal data or browsing activity” (Oxenham Allen et al., 2020, p. 4-5). Similar conclusion flows also from the cited EC advisor report: „While consumer attention and consumer data frequently serve as a non-monetary form of consideration and are of signiﬁcant value for ﬁrms, their economies are very different from those of prices.” (Crémer et al., 2019, p. 44). It should be emphasised that „just like traditional price-positive markets [z]ero-price markets present opportunities for the creation, enhancement or abuse of market power – precisely the evils that antitrust laws are intended to remedy (...)” (Oxenham Allen et al., 2020, p. 6).

Indeed, competition authorities and courts in many countries have to resolve more and more cases due to the market power achieved by large digital platforms. Regarding „zero price” problem, „attention markets” should be mentioned. There are different large online platforms (e.g., Meta, Netflix) that supply different content to the consumers (e.g., music, movies), but all of them are „competitors for human attention.” Attention market is a two-sided market comprising „buy side market in which platforms acquire consumer time and a sell-side market in which platforms sell slices of that time to marketers” (Evans, 2020, p. 12). So, the attention platforms compete for attention and users supply time for the desired content, that entertains or informs them (Evans, 2020).

As far as relevant market assessment is concerned, there are two opinions. Following Evans, „attention platforms can compete by offering different types of content to attract time” (2020, p. 13). Newman opposes this broad conception arguing that using this approach would lead to one „massive unconcentrated market (...) within such a massive market each rival’s individual share would be miniscule” (2020). As a result there would be „antitrust immunity for attention intermediaries” (Newman, 2020). In our opinion, narrower assessment of the relevant market taking into account a user’s perspective would be more suitable to address the goals of competition law.

3.2 Methods of Market Definition

Methods used for market definition are usually categorised to two groups – quantitative (comprising SSNIP test and SSNDQ test) and qualitative methods (Patakyová, 2020). Each of the methods has its advantages and disadvantages (Patakyová, 2020) and, as a matter of fact, there is no perfect method universally applicable to all cases.

3.2.1 SSNIP Test

Regarding market definition, each analysis has to start by focusing on the goods/services, which can be considered interchangeable, or looked upon as substitutes. There is a standard tool used for this purpose in conventional market. It is a well-known SSNIP test used in enforcement practice of competition authorities and courts. This test
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3.2.1.3

Aims to define demand-substitutability taking into account small but significant non-transitory increase in price, usually in range of 5-10 percent, lasting for at least a year. The SSNIP test is a well-established practice in conditions of a standard market exploring impact of price increase by hypothetical monopolist producing one product.10

There are several questions raised by digital economy regarding application of this test. First of all, the question of price is discussed in conditions of two-sided digital platforms setting different prices on each side of the platform; as „price change on one side impacts demand on both sides of the platform (...) profit maximization requires price coordination across the different sides.”11 And it is not only a problem of price level, but also the price structure.12

Digital economy has enabled rise of many new types of zero price business models (Öxenham Allen et al. 2020). Setting zero price on one side of the market alters, of course, conditions also for application of the SSNIP test. There are several opinions how to solve this problem. Some authors (Newman, 2016, cited as in Approach to market definition in a digital platform environment) recommend to use cost or quality based test, „to focus the substitution analysis on product characteristics such as quality instead of price.”13

According to Mandrescu (2022) in Google Search (Shopping) case14 the Commission refused to apply the SSNIP test. The Commission stated it was not required to carry out a SSNIP test.15 It considered necessary „to make an overall assessment of all evidence and there is no hierarchy between the types of evidence that the Commission can rely upon...the SSNIP test is not the only method available to the Commission when defining the relevant market.”16 On the contrary, „(...) the SSNIP test would not have been appropriate in the present case because Google provides its search services for free to users.”17

3.2.2 The SSNDQ Test

One of possibilities how to solve inapplicability of SSNIP test in zero-price markets is, as already mentioned, to focus on quality instead of price. But conversion of SSNIP test to SSNDQ test means, from economic perspective, according to Mandrescu (2022), to choose a similar option „as getting less quality for the same price is equal to paying more for the same quality.”

11 Ibid.
12 Ibid. That is why the CERRE (Centre on regulation Europe) report recommends to apply SSNIP test on both sides of the platform in order to understand how the platform adjusts its pricing structure. (Ibid.)
15 Ibid., para. 242.
16 Ibid., paras. 243-244.
17 Ibid., para. 245.

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The SSNDQ test or a small but significant non-transitory decrease in quality was recommended by OECD\(^{18}\) to be used in markets with rapid technological change instead of the established SSNIP test which focuses on prices.\(^{19}\) It has to be mentioned, there are some doubts, how to apply this test in practice "without a precise measurement of quality that would allow competition authorities and courts to determine an equivalent to a 5-10 % price increase" (Crémer et al., 2019, p. 45). Furthermore the European Commission advisor’s report draws attention to the fact, that there is no way „to quantify the effects of the quality degradation on the firm’s revenues in order to determine whether such a degradation would be profitable.“ (Crémer et al., 2019, p. 45). Due to these problems OECD states, „[t]he idea is therefore probably more useful as a loose conceptual guide than a precise tool that courts and competition authorities should actually attempt to apply“ (Crémer et al., 2019, p. 45). There is also alternative to SSNDQ test known as „SSNIC test“ (small but significant non-transitory increase in costs). This test „measures changes in the costs consumers pay for a free good in a non-monetary currency, such as attention or information“ (Oxenham et al., 2020, p. 9).

### 3.2.3 Qualitative Method

To use the qualitative method of relevant market definition means to focus on distinctive characteristics of products (Patakyová, 2020); among them the Commission emphasises functionality and use of the products/services,\(^{20}\) conditioning their substitutability. In Google Search (Shopping) case, the Commission concluded that comparison shopping services constitute a distinctive relevant product market, not including merchant platforms or offline shopping comparison tools that „cannot provide users with the same amount of information, level of reactivity and service as comparison shopping service.“\(^{21}\)

In other cases, e.g. Google/Double Click,\(^{22}\) the Commission came to the conclusion that some characteristics unique to online advertising – precise targeting, measurement of ads effectiveness and pricing mechanism – qualify online advertising as a separate market differing from offline advertising (Robertson, 2017). Attention concentrated on functionality can lead, as pointed out by Robertson, to building the reasoning of the Commission „on the products characteristics rather than on its demand side substitutability and thus deviates quite fundamentally from the Commission’s own Market Definition Notice“ (Robertson, 2017, p. 147).

Concerning different methods of market definition, it is obviously not possible to recommend one universal and ideal approach applicable in all cases. On the contrary, the selection of an appropriate method has to be case specific depending on the type of the relevant market. Having in mind some open questions connected with application of the new tests (SSNDQ, SSNIC) the qualitative method of the market definition seems to be more reliable.

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\(^{21}\) Ibid., paras. 246-248.

4. CONCLUSION

Obviously, digital environment has brought new challenges for competition enforcement policy, especially the market definition in these new circumstances. The market boundaries in platform economy are not only less distinct, but at the same time they can change rapidly, what can lead even to the necessity to re-define the relevant market. Competition enforcement therefore looks for new tools of defining relevant market – SSNDQ test and SSNIC test; some methodological aspects have to be cleared yet. Generally, less emphasis should be put on market definition and more attention should be put on anti-competitive practices. Sometimes, as shown by application practice, the relevant market definition can remain open.

Although there are in practice some difficulties in applying new tests, this was not a serious obstacle for the application practice until now, both in antitrust and merger cases, as Commission based market definition on product/service functionalities determining substitutability, perhaps not so strictly as when using SSNIP test. In spite of that, Commission is aware of the fact that Notice on Relevant Market Definition has to be updated.

At present, public discussion on draft notice is over and publication of the final version is planned for the Q3 2023. The draft notice has unfortunately not fulfilled all expectations, as solution of some important questions concerning two- or multi-sided platforms remained open. In this aspect, the role of application practice of the Commission is crucial, because the notice codifies case-law principles. In spite of that, it is not quite clear whether the practice of the Commission is „fully aligned with what is indicated in the notice” (Mandrescu, 2022) e.g. as far as forming of sub-sets or sub-segments inside a platform customer group for the purposes of market definition is concerned (Mandrescu, 2022). Although such an approach was used in practice, it was not included in the notice (Mandrescu, 2022). Similarly, it was not made clear how to apply the SSNIP test in case of multisided platforms - „to the platform as a whole rather to each side of the platform separately” (Mandrescu, 2022). More clarity would be needed, according to Mandrescu (2022), also in case of the suggested conversion of SSNIP test to SSNDQ test in zero price markets.

Obviously, there could hardly be a universal solution expectable as it is always necessary to take specific circumstances of each case into account and to ascertain the relevant market with respect to the goals of competition law. Market definition being ever more complex is undoubtedly becoming a difficult task for the enforcement practice. Analysis shows that case specific approach prevails until now and a coherent conception seems to be missing. Anyway, at least some options and better guidance could be offered to the practice in the prepared notice having in mind the importance of relevant market in the competitive analysis.

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