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The EC's consultation on market definition

Observations by RBB Economics

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1 Introduction

The European Commission ("the Commission") has launched a welcome public consultation regarding its Notice on market definition ("the Notice").[1] This paper, prepared by RBB Economics, sets forth a number of observations on the Notice's content and on the current role that market definition plays in cases. We also provide some recommendations for a next version of the Notice.

In the past decade, there has been a debate – mostly in the US – regarding the usefulness of market definition.[2] Although some have criticised the use of the concept in any type of competition case, most criticisms have been directed towards the use of market definition in merger investigations in particular.

We believe that the definition of the relevant market represents a valuable first step that brings important rigour to any competition law investigation, provided that it is made according to appropriate principles.

The reason for the importance of market definition is threefold:

- First, notwithstanding the fact that a proper economic assessment of competition cannot be confined to a structural analysis, we note that market shares still play an important role in that assessment. Whenever market shares are used to inform the competitive assessment, the definition of the market and the basis for choosing that definition is very important. Since market shares are regularly used as a proxy of a firm's competitive significance (notably by the Commission), it is critical that they are calculated for a market that is defined meaningfully, following sound principles to identify the relevant competitive constraints.[3]
- Second, market definition identifies the relevant set of products that exert an *effective* competitive constraint upon the products of interest, allowing the Commission to focus its investigation.[4] Given that the objective of European competition policy is precisely to protect *effective* competition, market definition is a tool that helps establish what that means in practice for any given industry and case.
- Third, contrary to what some academic commentators have argued, none of the other tools that have been suggested is able determine the scope of anti-competitive effects "directly", circumventing market definition.[5] The tools that have been considered as possible alternatives to market definition (such as price pressure tests or merger simulation analyses) are subject to important limitations, and in our view represent at most complements – rather than substitutes – to market definition.[6]

The Commission's Notice on market definition provides important guidance for this first useful step in a competition investigation. The current Notice, issued in 1997, was the first policy document published by the Commission that clearly referred to economic principles. The Notice was generally welcomed at the time, and it has clearly played an important role in advancing economic analysis in European competition law investigations.

1 Commission Notice on the definition of relevant market for the purposes of Community competition law OJ C 372, 9.12.1997, p. 5–13.

2 See, among others, Farrell and Shapiro (2010), "Antitrust Evaluation of Horizontal Mergers: An Economic Alternative to Market Definition", The B.E. Journal of Theoretical Economics: Vol. 10: Iss. 1; Schmalensee Richard (2009), "Should New Merger Guidelines Give UPP Market Definition?", 12(1) CPI Antitrust Chronicle; Kaplow, Louis (2010), "Why (Ever) Define Markets?", Harvard Law Review, 437, 440; Werden, Gregory J. (2013), "Why (Ever) Define Markets? An Answer to Professor Kaplow", Antitrust Law Journal, p. 729-728; Duncan Cameron, Mark Glick & David Mangum (2012), "Good Riddance to Market Definition?", 57 The Antitrust Bulletin; Malcolm B. Coate & Joseph J. Simons (2012), "In Defense of Market Definition", 57 The Antitrust Bulletin; Oxera (2011), "Unilateral effects analysis and market definition: substitutes in merger cases?". This was also discussed comprehensively in an OECD Policy Roundtable on the topic in 2012 – see OECD Policy Roundtable on Market Definition, DAF/COMP(2012)19.

3 Unless the market is defined according to principles that reflect the relevant (primary) competitive constraints, the calculated market shares are unlikely to provide any meaningful insights into the competitive process and the strength of the various products and firms therein.

4 See the Notice, paragraph 2. This focus does *not* mean that constraints that are left out of the market can or should be ignored. These can and should be assessed when assessing potential competition (and in particular the scope for market entry).

5 See Footnote 2.

6 This is further discussed in Section 4 below.

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Many of the concepts that the current Notice builds upon represent sound economic principles and their application should be promoted, rather than abandoned, going forward. Other concepts in the Notice, however, are rather vague and do not allow for a consistent application of market definition (and therefore competition policy) across industries and cases – these concepts should be revised or discarded.

In this paper, we seek to identify the main elements that should be maintained, if not strengthened, in a next version of the Notice, and also those that should be put aside. In doing so, we also briefly discuss the Commission's use (and misuse) of market definition in actual cases.

Our general recommendation to the Commission through this paper is to define markets in accordance with the Hypothetical Monopolist Test ("HMT") framework. The HMT should not be regarded as providing one possible experiment or method for evaluating market definition – as the current Notice does – but as the only valid conceptual framework that can be used for defining markets on a sound and consistent basis across industries and cases, and that can guide the assessment of all evidence on market definition, including more qualitative evidence. In this paper, we explain that the HMT framework is also sufficiently robust and flexible to address all possible market features, including differentiated products, multi-sided platforms, zero-price transactions, or the globalisation of the economy. We believe that the next version of the Notice should unambiguously put the HMT at the centre of market definition, and provide guidance as to how it should be applied in different settings and with different types of evidence.

2 The Hypothetical Monopolist Test as the only valid framework

The Notice sets out clearly at the outset that market definition must be a robust exercise. In particular, paragraph 2 reads:

"The main purpose of market definition is to identify ***in a systematic way*** the competitive constraints that the undertakings involved face. The objective of defining a market in both its product and geographic dimension is to identify those actual competitors of the undertakings involved that are capable of constraining those undertakings' behaviour and of preventing them from behaving independently of ***effective*** competitive pressure".[7]

However, when discussing how to delineate markets in practice, the Notice leaves the method of market definition too open to interpretation. Paragraph 7 of the Notice, for example, suggests that markets can be defined by checking whether the products share the same characteristics or price level. However, products with different features can compete effectively against each other, including when their prices differ substantially.[8] Paragraph 8 of the Notice, regarding geographic markets, is also vague, as it comments on "the conditions of competition" being sufficiently homogeneous across territories, but it does not explain what this means in practice and leaves room for misinterpretation. For example, this paragraph has often been misunderstood as implying that differences in market structure between two countries (e.g. differences in market shares) necessarily imply different relevant markets.[9]

The Hypothetical Monopolist Test (HMT), also known as the SSNIP test, is the only available tool that meets the objective above.[10,11] Indeed, the HMT is precisely a *systematic* exercise meant to identify the set of products and geographies that exert an *effective* competitive constraint upon the product and geography of interest. Although the Notice does discuss the HMT (paragraphs 15 to 17), it presents it as only "one way" in which markets can be defined.[12]

7 Emphasis added.

8 Indeed, price differentials may offset differences in other attributes.

9 The way in which this is discussed further in paragraphs 28-29 is also problematic as, in practice, it attaches very substantial weight to whether market shares and price levels are the same across territories.

10 The HMT is built on the principle that a relevant market is something worth monopolising – it starts from the products and geographies of interest and assesses whether a hypothetical monopolist controlling those could raise prices by 5-10% profitably, and if that is not the case, it adds the most immediately substitutable products until such a set is found.

11 SSNIP stands for Small but Significant Non-Transitory Increase in Price. We note that the HMT can be flexed to accommodate competition on non-price parameters – see Section 5.2 below for further discussion of this.

12 This has also been echoed by the General Court in the *Topps* case, although this is again driven by the (we believe, mistaken) interpretation of the HMT as an *experiment,* rather than a *framework* for market definition. See Case T 699/14, Topps Europe Ltd v Commission, EU:T:2017:2, paragraph 82.

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Many of the reservations raised regarding the HMT relate to the fact that the experiment it describes can rarely be implemented in practice. We do not think that this is a valid reason to undermine the usefulness of the HMT. This is because the HMT should not be viewed as an actual experiment to be operationalised in practice, but rather as providing a conceptual *framework* to guide the assessment of all evidence on market definition, even that of a qualitative nature. Although it is indeed rather uncommon to be able to apply the HMT empirically or assess it statistically, it is practically always the case that the relevance of available evidence on market definition (be it quantitative or qualitative) can be assessed using the HMT logic. However, the Commission rarely does this – we discuss this further in the following section.

Finally, we note that the Notice puts forward the HMT as an exercise to capture demand-side substitution. However, its role is wider than this, as it is also capable of capturing supply-side substitution. If producers of Product B were to start producing Product A sufficiently quickly in response to an increase in Product A's prices, a hypothetical monopolist of Product A would not be able to raise prices profitably. It would be useful for the next version of the Notice to make this clear. We also recommend that the new Notice adds more clarity on the logic of the test – for example, by referring explicitly to the "hypothetical monopolist". This is currently not done, e.g. in paragraphs 15-17.

In summary, the updated version of the Notice should put the HMT framework squarely at its centre. Moreover, we recommend that the Notice gives clear, practical guidance on how the different sources of evidence can be used to inform the assessment of the HMT, including, among others, past price and volume sales data, customer switching data, margin data, customer surveys, market shocks, production data, competitors' and customers' testimony, existing market research studies, and internal documents.

3 The Commission's practice

In the previous section, we have explained that the current Notice is ambiguous as to how markets ought to be defined. This ambiguity is effectively translated into cases, where we generally find that the Commission has not applied market definition principles in a consistent manner.

We have reviewed the market definition analyses conducted by the Commission in all Phase II merger cases in the past 10 years.[13] For each of these cases, we have first identified whether the HMT logic is mentioned or referred to in any way in the decision. If it is, we have looked into the way in which the HMT is actually used, and in particular whether it is used as a framework to guide the overall assessment on market definition. Finally, we have also looked at whether there are (potential) inconsistencies between the definition of the relevant market(s) and the competitive assessment, in particular where market definition has been left open or a competitive assessment has been conducted for narrower segments within the relevant market. Our findings are summarised in Table 1 below.

Table 1: The Commission's use of the HMT in Phase II merger decisions, from 2010 to April 2020

	Number of decisions
Total number of decisions published	64
HMT logic mentioned?	36
If HMT logic mentioned, used as an overall framework?	0
Market definition left open or competitive assessment for market segments?	34

Source: RBB Economics based on all Phase II decisions published by the Commission as of April 2020.

13 This discussion focuses on market definition in merger cases. Market definition in Article 101 and 102 cases is less straightforward in practice, as the relevant price for the HMT assessment is the competitive price level, as opposed to the prevailing price level. However, market definition is also important in Article 101 and 102 cases, and some of the points in this discussion also apply to that.

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As the table above illustrates, we have identified three main recurring practices that are worth discussing.

First, in a large number of cases (28 of the 64 decisions assessed), the market definition discussion either relies on precedents and/or it is not framed by reference to the HMT. In this respect, we note that:

- Precedents are often old and relate to significantly different cases – this can be problematic, because the industry may have evolved significantly, the market definition may genuinely differ (the definition of the market can change depending on the products/firms of interest), or the definition of the relevant market in the previous case was not investigated thoroughly (it was not particularly important). It would be useful for the Notice to comment on the specific role to be played by precedents, and how this can vary across cases.
- In the cases where a market definition exercise is conducted but no reference is made to the HMT, the information relied upon comes from internal documents, marketing presentations, or generic questions sent to customers or rivals. This of course risks leading to markets that are narrower or wider than would be implied by the HMT.

Second, in around half of the decisions (36 out of 64), we find that a reference to the HMT is made. Importantly, its application is very limited. Indeed, in none of these cases is the HMT used as the conceptual *framework* to assess all the evidence on market definition – the HMT is only used as a complementary *experiment*. As noted above, we believe that the role to be played by the HMT should be wider than this.

Moreover, we note that the Commission's application of the experiment itself is typically incomplete. In virtually all of these cases, the Commission makes use of its questionnaires to customers to gather their views as to whether they would switch away from the candidate product market in the event of a 5-10% price increase.[14] Based on the responses it obtains, the Commission provides statistics regarding the proportions of surveyed customers that indicated that they would (or would not) switch away from the candidate market, but it does not engage in translating these switching statistics into an assessment of whether a SSNIP would be *profitable* or not for the hypothetical monopolist (that would also require an appraisal of prevailing margin levels, for instance).[15,16]

Third, also in about half of its decisions (34 of 64), the Commission performs a competitive assessment for segments that have not been clearly defined as relevant markets. These cases can in turn be classified into two types:

- In many of these cases, the Commission provides a competitive assessment for segments that are contemplated only as *plausible* relevant markets in the market definition assessment, where market definition has been left open.[17] For clearance decisions where market definition may require substantial work, leaving the market definition open can be justified on the grounds that it ensures an efficient use of the authority's resources.[18] For intervention decisions, however, this should be avoided – by keeping market definitions open in cases where a Significant Impediment of Effective Competition (SIEC) is found likely, the Commission can effectively bypass the discipline imposed by the HMT framework.
- In some other cases, segments of the market are identified in the competitive assessment despite having concluded on a wider relevant market.[19]
  In practice, in some of these cases, the Commission effectively conducts a separate competitive assessment at the level of segments of the relevant market (including, inter alia, an analysis of concentration or market shares) – this is at odds with the principles underpinning the HMT and should be avoided going forward.[20,21]

14 In some cases, the same approach is applied to rivals regarding supply-side substitution. There are a number of problems associated with using customer or rival questionnaires to assess the scope for switching, as such responses can be subject to a number of biases. Whether the sample of customers used is representative or not is also important. However, in practice, it is sometimes the case that this is the only way of assessing switching among alternatives.

15 The only exception to this appears to be Ineos/Solvay, where past data allowed the Commission to test whether the hypothetical price increase in a geographic area would be profitable or not. Indeed, the Commission showed that despite being faced with a relative increase in prices in North Western Europe (NWE), and despite having capacity available, suppliers located elsewhere did not increase their sales in NWE and did not defeat this price increase. Based on this "natural experiment" and other considerations, the Commission concluded that the geographic market for S-PVC had to be defined as NWE.

16 See Footnote 10 above for a brief explanation of the test's logic and how the assessment of profitability is important to it.

17 See, for example, Comp/M.9064 - Telia/Bonnier, Comp/M. 8797 - Thales/Gemalto, Comp/M.7278 - GE/Alstom, or Comp/M.8677 - Siemens/Alstom.

18 Forcing a definitive market definition in these cases could lead to a bad (low quality) precedent, which is also undesirable.

19 See, for example, Comp/M.7555 - Staples/Office Depot (segments within the market of international contracts for the supply of office products, such as contracts for the supply of traditional office products to large business customers, or contracts for the supply of stationery to large business customers), Comp/M.6497 - Hutchison 3G Austria/Orange Austria (segments within telecom services to end customers, such as pre-paid and post-paid, or private and business use), or Comp/M.5658 - Unilever/Sara Lee (segments within the non-male deodorant market, such as fragrance and by format).

It should be noted that the above comments do not argue for the competitive assessment of the Commission to be based on "wider markets". Rather, these comments argue for the Commission's competitive assessment to be based on the relevant markets as properly defined using the framework provided by the HMT. If, in a given industry, the Commission finds that a given product or customer segment constitutes a separate relevant market according to the HMT, a competitive assessment will rightly have to be conducted on the basis of that segment.

To conclude, we emphasise that the Commission's practice of market definition should adhere more strictly to the discipline imposed by the HMT than it currently does. As noted above, we recommend that this is also reflected in the next version of the Notice.

4 Market definition with differentiated products

It has been argued that market definition does not work well for differentiated-product industries.[22,23] This, critics argue, is because market definition implies the delineation of an artificial boundary that determines which products are "in" and which products are "out" of the market. On this view, in industries characterised by product differentiation, the relevant market as defined using the hypothetical monopolist test may be "too narrow" because it excludes alternatives that still exert some competitive constraint upon the products of interest, or "too broad" because it includes alternative products that represent more distant alternatives than those that compete more directly against the product of interest.

We believe that these criticisms are unjustified.[24] Market definition, and the HMT in particular, is precisely meant to assess product and geographic differentiation, and to identify on this basis the collection of primary competitive constraints that exert effective pressure on the products under investigation.

- Markets cannot be "too narrow" if the HMT is applied correctly. The fact that a competitive force is deemed to be out of the relevant market means that it is not as central to the investigation, but not that it will be ignored. For example, these alternatives will have to be considered when analysing the scope for market entry (which might mean repositioning these products closer to those of the firms under investigation), and may well play an important role for the overall case in this respect. It would be useful for the next version of the Notice to provide some guidance on the role to be played by out-of-market competitive constraints (currently paragraph 24 discusses this topic, but only superficially).[25]

- When suggesting that relevant markets are "too broad", critics highlight that some substitutes within the relevant market may exert a weaker competitive constraint than others.[26] We believe this is explained by a confusion as to the weight that should be placed on market shares in such an industry. It is the case that in some industries an analysis of market shares can misrepresent the strength of the competitive constraints provided by particular products vis-à-vis the products of interest – in these settings, market shares should be interpreted very cautiously. However, this should not affect the validity and usefulness of market definition. Market definition is the selection of products that collectively exert an effective competitive constraint upon the products of interest.[27] How each of these competing products are assessed, or weighed, later on in the competitive assessment will depend on the analyses that are considered most appropriate for the industry and case at issue, which should include, among others, an assessment of closeness of competition. Indeed, market definition should not be taken as a substitute for the competitive assessment, but it does bring rigour to it.

20 These discussions are often framed within a "closeness of competition" assessment. The analysis of closeness of competition is a very important step in the assessment of a merger, but the role that it can play within a *properly* defined market should not be overstated.

21 It is also worth noting in this context that the calculation of market shares for a large number of market segments (at the request of the Commission) is becoming increasingly common in cases. This is normally very burdensome for the merging parties, and it often adds limited value to the assessment. This is because typically segment shares shed limited light on actual closeness of competition between the parties, and other metrics (switching data, customer surveys, etc.) are likely to be more useful for this purpose.

22 For example, see Carlton, Dennis W. (2007), "Market Definition: Use and Abuse", Competition Policy International, Vol. 3, No. 1; Farrell and Shapiro (2010; op. cit.); Schmalensee (2009; op. cit.), Shapiro, C. (1996), "Mergers with Differentiated Products", Antitrust; Gregory J. Werden & George Rozanski (1994), "The Application of Section 7 to Differentiated Products Industries: The Market Delineation Dilemma", Antitrust, 8(3), 40-43.

23 In practice, it is difficult to establish what a differentiated-product market is. This is because most markets involve products or firms that are differentiated (often along several dimensions).

24 For good discussions by other practitioners, see Werden, Gregory J (2013, op. cit.), Malcolm B. Coate & Joseph J. Simons (2012, op. cit.), among others.

25 For example, the scope for anti-competitive effects may not be affected by the choice between (i) a wider market, and (ii) a narrow market subject to potential entry.

26 Importantly, these substitute goods are added because the hypothetical monopolist still is unable to raise prices profitably by 5-10%.

27 Market definition says little about the nature of competition within the market. Indeed, such competition is eliminated, by construction, for the purposes of the HMT.

Some commentators have mentioned that, in differentiated product markets, one should seek to test the scope for anti-competitive effects directly, circumventing market definition.[28] In our experience, the tools that have been put forward to achieve this, such as price pressure tests or merger simulation analyses, are not capable of replacing market definition in these cases. This is because these analyses rely on oversimplified models of competition, and therefore their predictions are likely to be unreliable.

- First, these tools do not capture supply-side substitution and, as a result, they focus on a narrow set of products or firms – they do not account for alternatives on the supply side that may not be available currently but that would become available quickly in the event of a permanent, significant price increase. Market definition seeks to capture these.
- Second, these tools do not account for product repositioning or product line extension by rivals. In practice, it is not possible to assess the scope for these to occur without having defined the relevant market first. Indeed, it is not possible to assess the extent of dynamic responses by rivals if one has not first determined all of the products and rivals that are part of the relevant market.
- Third, and similarly to the above, these tools do not account for market entry. In practice, market definition is also necessary to assess this – how easy it is for a firm or product to eventually become an *effective* competitive constraint crucially depends on the specific products (or geographic areas) via which that can be attained.

Following all the above, the HMT is fit-for-purpose in differentiated-product industries, and pricing pressure tests or merger simulation analyses are not capable of replacing the role of market definition in cases. It would be useful that the next version of the Notice also makes this clear.

5 Market definition in the digital economy

One of the reasons given by the Commission for reviewing the Notice is the growing importance of the digital economy, notably the prevalence of multi-sided internet platforms, and the challenges that these platforms pose for market definition.[29]

Commissioner Vestager's three experts' report on the future of competition policy in the digital era goes as far as recommending that less emphasis be placed on the analysis of market definition, with a more direct focus on theories of harm.[30] The main reasons put forward for this are that digital platforms are multi-sided, that digital markets are evolving rapidly, and relatedly, that platforms may compete for some services but not others, all of which add significant complexity to the exercise of delineating market boundaries. In short, the report suggests that defining markets, which could be achieved in the old economy, has become too challenging for the digital era.

It is not clear, however, why these complexities could be more easily handled by focusing directly on the theories of harm considered in merger control or competition law infringements. The purpose of market definition is to identify those competitors that exert effective competitive pressure on the firms concerned by an investigation. This objective is no less fundamental for the digital economy. Although we recognise that the digital economy raises a number of challenges, we believe that the HMT framework is sufficiently general to account for these. In what follows, we briefly discuss the challenges posed by multi-sided platforms and non-price transactions in particular.

28 See Footnote 2. These tools are often said to be capable of replacing market definition in cases "about" unilateral effects. Crucially, and setting aside the important limitations that these analyses are subject to, the analyst cannot know whether a given case is "about" unilateral effects, coordinated effects, conglomerate effects, or vertical effects without having defined the relevant markets in which the merging parties operate. In practice, it is only after all markets in which the parties operate have been clearly defined that one can take a firm view as to the relevant economic linkages between and within such markets, and then consider all possible theories of harm. Moreover, it is not only that market definition is required to identify the type of anti-competitive effect to be explored, but it is also required to assess whether such effect is likely to arise or not – indeed, market definition is also needed to conduct an assessment of coordinated effects, vertical effects, or conglomerate effects.

29 *"Changes like globalisation and digitisation mean that many markets work rather differently from the way they did, 22 years ago. In that time, we've also developed and refined the techniques we can use to define the boundaries of a market and the kinds of evidence we use. And experts – like the three special advisers who prepared a report on competition policy in the digital era last spring – have drawn our attention to new challenges with market definition".* Speech "Defining markets in a new age" by Commissioner Vestager, Chillin' Competition Conference, Brussels, 9 December 2019.

30 Competition Policy for the Digital Era, A report by Jacques Cremer, Yves-Alexandre de Montjoye and Heike Schweitzer.

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5.1 Multi-sided platforms

An important aspect of some multi-sided digital platforms is that user demand for the good or service on one side of the platform is related to the level of demand on another side. Interestingly, many examples of multi-sided platforms can be found in the old economy.[31] The textbook example is a newspaper that sells news to readers and advertising space to advertisers. A popular newspaper can sell a wide reach to advertisers, allowing it to charge a premium rate for advertisements. To expand readership, which is valuable to advertisers, newspapers have an incentive to charge lower prices to readers, possibly even below the incremental cost of producing one more copy.[32] When setting prices, newspapers consider the interrelated demand from readers and advertisers. Importantly, this attribute has not prevented competition authorities from defining relevant markets in this sector.

We note at the outset that many firms, even in the old economy, can be considered to be two-sided (or multi-sided) platforms. Two-sidedness only matters, however, when the indirect network effects (or the interdependencies between user demand across the different sides) are sufficiently strong. Indeed, when indirect network effects are strong, they should be accounted for in the market definition analysis – failing to do so could result in defining relevant markets that are too narrow. For example, the success of ride-hailing platforms such as Uber depends on effectively matching riders and drivers. If these platforms were to raise passenger fares, this would cause a reduction in riders' demand, which in turn would make platforms less attractive to drivers, causing a loss of profit on that side. As fewer drivers participate in ride-hailing platforms, prices and/or waiting time would increase, which would further diminish demand on the rider side, causing a further loss of profit.[33] In this case, the losses associated with the putative price increase are amplified. A complete profitability assessment of raising prices by a small but significant amount would have to consider the effects on both sides of the platform.

We recognise that multi-sided platforms give rise to challenges. For example, a question is often raised as to whether it is more appropriate to conduct market definition exercises from the perspective of each side of the platform separately (taking into account, for each, the effects on profitability on the other sides), or rather a single market definition exercise that contemplates a simultaneous price increase across all sides. The answer to this and other similar questions may vary across cases. Importantly, these challenges do not apply to market definition only – they apply to the competitive assessment of the case as a whole. Therefore, market definition remains an important tool in cases involving digital multi-sided platforms. It would be helpful for the next version of the Notice to give practical guidance as to how the HMT framework can be applied in them.

5.2 Non-price transactions

Another feature of the digital economy that is regarded as a challenge to conventional market definition analysis is the fact that some of these platforms offer services that are free of charge. The reason why certain users do not pay is often because the platforms in question are earning revenues on another side, where a different group of users is paying (e.g. advertisers are charged to place display advert on websites). The fact that platforms give users free access is frequently an indication that there are indirect network effects. Practically, however, one cannot consider the consequences of raising prices by 5-10% in these settings.[34]

Importantly, price is not the dimension on which platforms compete when they offer a service for free – they do so on service quality.[35] For example, users select a web search engine for the relevance of its results, a real-estate online site for the search functionalities offered, etc. The HMT conceptual framework can be equally applied in these cases, although the exercise would have to consider a small quality deterioration relative to the competitive level (rather than a small price increase) – this is also known

31 See, for example, Case No COMP/M.4523- Travelport/ Worldspan.

32 There is no clear-cut definition of multi-sided platforms and some definitions are so broad that most firms would be included in that category. For example, Jean-Charles Rochet and Jean Tirole define *"a two-sided market as one in which the volume of transactions between end-users depends on the structure and not only on the overall level of the fees charged by the platform"*. That is, if lowering prices to readers and raising the fees to advertisers allow more transactions on both sides, then newspapers are two-sided platforms. The relationship between user demand on both sides means that the pricing structure (not the total price) is not neutral and affects market outcomes. This feature would apply to most firms, in fact, as they bring together suppliers and customers. Rochet and Tirole argue that fierce competition between platforms, however, would make indirect network effects irrelevant. In such cases, two-sidedness is unimportant. See Jean-Charles Rochet and Jean Tirole, "Two-sided markets: a progress report", The RAND Journal of Economics, September 2006, Volume 37, Issue 3, pages 645-667.

33 In the presence of strong indirect network effects, raising the price on one side affects user demand on the other side. This implies, therefore, that assessing the profitability of a price increase on one side involves examining the effect on profit on the other side. In addition, when a two-sided platform is affected by a "feedback loop", which is the case when there are positive network effects going both ways, user demand tends to be even more price-elastic. In other words, the loss of sales that result from a price increase can be substantially amplified.

34 A 5% price increase when the initial price is zero is still zero.

35 In some cases, "free" services can compete with paid services within the same market.

as a "SSNDQ".[36] For example, the question to be examined would be whether a single firm controlling all online real-estate platforms would be able to reduce investment in the quality of its service in a small but significant manner. If, in response, a sufficiently large number of users were to stop consulting these platforms and instead consult directly the website of real-estate agencies, such quality deterioration would not be profitable – the hypothetical monopolist would lose (a sufficiently large) part of its audience, leading to revenue losses on the sellers' side. In that context, the candidate market would have to be broadened.

Defining markets involving non-price transactions can raise practical difficulties – for example, the determination of what represents a SSNDQ is not trivial. However, this does not mean that market definition is less important in these cases, nor that the framework of the HMT cannot be applied. Importantly, this cannot mean either that the definition of a SSNDQ becomes an arbitrary exercise – currently, in cases, there can be long, unresolved debates between the parties and the Commission over whether a given quality deterioration is "significant" or not. In this regard, it would be useful for the updated Notice to give clear practical guidance as to how a SSNDQ ought to be defined, and on the different types of evidence that can be used to inform the HMT in these cases.

6 Market definition and globalisation

In recent years, it has been mentioned that the Commission may be too conservative when defining the geographic scope of the relevant market, failing to appreciate that in certain cases they are global in nature.[37] Following this, Commissioner Vestager has referred to the globalisation of the economy as one of the reasons why the current Notice may have to be reviewed.[38]

The fact that the economy is subject to a globalisation trend should not alter in any way the *methodology* by which markets are defined, and therefore the Notice. The relevant market should be defined on a case by case basis in accordance with the HMT framework. Globalisation means that in some instances, alternatives located in other geographic areas may now be closer substitutes than before – this applies to both demand-side substitution (consumers being more willing/able to buy in other territories than they were before) and supply-side substitution (suppliers being more willing/able to re-direct supplies to other territories than before) – but in other instances, this may not be the case. Importantly, whether this is sufficient to justify a wider market cannot be determined by blanket statements and depends on the specifics of the case at hand.

In this context, it is worth mentioning that more precise guidance is required on how swift supply-side substitution has to be in order for the supplier in question to be part of the relevant market.[39] The HMT is based on the assumption that the putative price increase has to be profitable if exercised on a "permanent" (or "non-transitory") basis. Being able to increase prices profitably for a week or just a month cannot represent the right policy principle. At the same time, supply-side substitution that is exercised more than a year later would not seem immediate enough, and should typically be assessed as potential market entry.[40] It would be important for the next version of the Notice to shed light on this point, and also on how the relevant time periods may change depending on the characteristics of the industry.[41]

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36 Instead of considering a small but significant and non-transitory increase in price (SSNIP), the test would consider whether a hypothetical monopolist could impose profitably a small but significant and non-transitory decrease in quality (SSNDQ) relative to the competitive level. In practice, this could take the form of a reduction in the running costs incurred to maintain current quality levels, or of a reduction in the investment required to do further product quality development.

37 See, for example, the letter sent by the German, Italian, French and Polish governments to Commissioner Vestager on 4 February 2020.

38 See Footnote 29.

39 This point is equally relevant to *product* market definition.

40 As the Commission's Horizontal Merger Guidelines state (paragraph 74), *"entry is normally only considered timely if it occurs within two years"*. As such, for supply-side substitution to be timely, a significantly shorter time period ought to apply.

41 With respect to entry, the Commission's Horizontal Merger Guidelines explain (paragraph 74): *"What constitutes an appropriate time period depends on the characteristics and dynamics of the market, as well as on the specific capabilities of potential entrants"*. This relates in particular to markets characterised by a very small number of transactions per year, and where therefore the time period to consider entry as timely may be longer. A similar logic should apply to supply-side substitution.