



#### Two-sided market definition: some common misunderstandings

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The European Commission is consulting on updating its 1997 Market Definition Notice, which provides important guidance on identifying relevant markets in competition cases. One hotly debated topic is defining markets for two-sided platforms. Here we discuss some common misunderstandings around this, including on how to apply the hypothetical monopolist test to digital platform markets.

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#### 1 Introduction

Market definition is commonly accepted by courts and competition authorities as a useful intermediary step in competition cases. The determination of whether a potentially anticompetitive practice is permissible, or whether a merger can progress, often depends on the extent of the relevant market—the set of products/services that are sufficiently substitutable to impose a competitive constraint on one another. Market definition enables the assessment of market shares and market power, which allows businesses to carry out internal legal risk assessments, and competition authorities to decide whether to close or continue an investigation at an early stage (e.g. under the horizontal or vertical block exemptions).<sup>1</sup>

The Commission's Market Definition Notice was published in 1997, and sets out the principles for defining the product and geographic dimensions of relevant markets, including the hypothetical monopolist or 'SSNIP' test—where SSNIP stands for small but significant and non-transitory increase in price.<sup>2</sup> The SSNIP test captures the idea that if a hypothetical monopolist is able to profitably raise prices for a group of products (or geographic area), then that group (or area) constitutes a relevant market since there is insufficient competitive pressure from outside products (or areas). Economic thinking on market definition has developed since 1997, including in the Commission's own decision practice, and new questions have arisen as markets evolve. Updating the 1997 Market Definition Notice to capture recent developments is therefore a worthwhile endeavour.<sup>3</sup>

One topic that is important to cover in this update is two-sided market definition. This has received widespread attention due to a proliferation of competition cases involving digital platforms. These are often referred to as two-sided platforms as they bring together two (or more) types of user—such as online travel sites connecting holidaymakers with hotels, or social media sites bringing together users, app developers and advertisers. However, two-sided market definition is also relevant in more traditional industries, such as payment card systems (which connect merchants and cardholders). There are many questions, and misunderstandings, around the application of market definition to two-sided platforms. Here we address the following questions.

- Can the SSNIP test be applied to two-sided platforms?
- When is a platform two-sided?
- Where do you start with the SSNIP test?
- How does the SSNIP test work for two-sided platforms?
- Should there be one market for the platform, or two markets (one for each side)?

<sup>&</sup>lt;sup>1</sup> If the combined market share of the relevant parties to an agreement is below a certain threshold, and the agreement does not involve hardcore practices such as price-fixing, market sharing or bid rigging, the conduct may be exempt from competition law. The horizontal and vertical exemptions are currently under review. The prevailing regulations are: Commission Regulation No 1217/2010 of 14 December 2010; and Commission Regulation (EU) No 330/2010 of 20 April 2010.

<sup>&</sup>lt;sup>2</sup> European Commission (1997), 'Notice on the definition of relevant market for the purposes of Community competition law', 97/C 372/03, 9 December.

<sup>&</sup>lt;sup>3</sup> European Commission (2020), 'Commission consults stakeholders on the Market Definition Notice', press release, 26 June.



- Is there a distinction in market definition between transaction and non-transaction platforms?
- · What if the externalities flow in only one direction?
- What if the price is zero on one side of the platform?
- · Can the market include non-platform competitors?

## 2 Can the SSNIP test be applied to two-sided platforms?

The answer is yes: one can ask whether a hypothetical two-sided platform monopolist is able to impose a SSNIP, and draw conclusions from this on the relevant market. We show how to do this in more detail below. Applying the test is not straightforward, but it still provides a useful framework for thinking about relevant markets, as also noted by the European Commission in a submission to the OECD:

Of course it is somewhat more complicated when the link depends on intergroup network effects...However, these problems are not insurmountable and (certainly as a guiding concept) both the SSNIP test and [critical loss analysis] can still be applied with modifications<sup>4</sup>

In a number of cases, courts and competition authorities have recognised the two-sided nature of platforms when defining the relevant market—examples include the US Supreme Court ruling in *American Express* (2018), which involved payment card services; and the Court of Amsterdam ruling on *Funda*, a property search website (2018).<sup>5</sup> However, this is not always the case—in the various European competition investigations into the use of price-parity or 'most favoured nation' clauses by online travel platforms such as Booking.com, national competition authorities have not fully taken into account the two-sided nature of the platforms' business models. For example, while recognising that Booking.com acts as an intermediary between hotels and consumers, the Swedish and Italian competition authorities did not explicitly recognise the two-sided nature of the platform when defining the market. Instead, they focused on a comparison of product characteristics when defining markets.<sup>6</sup>

## 3 When is a platform two-sided for the purposes of market definition?

'Two-sided platform' has become a commonly used label for all sorts of digital platforms, not just in competition policy but also in the business community. Many digital platforms do indeed bring together different types of user on different sides, but they usually have a number of additional economic characteristics, and it is important to be explicit about these to avoid overgeneralisation. The main characteristics can be described as follows (although sometimes different commentators use different terminology).

<sup>&</sup>lt;sup>4</sup> Organisation for Economic Co-operation and Development (2012), 'Roundtable on Market definition – note by the delegation of the European Union', 31 May, DAF/COMP/WD(2012)28.

<sup>&</sup>lt;sup>5</sup> Ohio v American Express Co., 585 U.S. 12 (2018). Rechtbank Amsterdam, VBO Makelaar v. Funda en NVM, ECLI:NL:RBAMS:2018:1654, judgment of 21 March 2018. See Niels, G. (2018), 'Funda-mentals of Article 102: A dominant platform, but no abuse', Agenda, September, https://www.oxera.com/agenda/funda-mentals-of-article-102-a-dominant-platform-but-no-abuse/.

<sup>&</sup>lt;sup>6</sup> Konkurrensverket, Decision 15/04/2015, Ref. no. 596/2013; Autorità Garante della Concorrenza e del Mercato, Provvedimento n. 25422, I779 - Mercato dei servizi turistici-prenotazioni alberghiere online, Bollettino n. 14, 27 April 2015.



- On the demand side, platforms can combine **one-sided**, or direct, network externalities, and two-sided, or indirect/cross-group, network externalities as illustrated on the figure below. One-sided effects are between the same type of user-Facebook becomes more valuable to you the more of your (real or virtual) friends you can connect with. Two-sided effects are between different types of user—Facebook is more valuable to advertisers the more users it has. Platforms may connect more than two sides—such as users, advertisers and app developers—in which case the term multi-sided platform is more appropriate, although the economic properties remain similar to those of two-sided platforms.
- On the supply side, a platform may exhibit economies of scale-where its average costs decrease with size—or economies of scope—where it can efficiently offer multiple services simultaneously. Platforms may also offer complementary services—i.e. services that are more valuable when consumed together, such as a messaging or payment functionality on the platform. Sometimes these are offered on the platform by third-party providers (or 'complementors'). Complements and two-sided network externalities can have similar effects, but a platform offering complementary services does not make it two-sided as such.
- Digital platforms are particularly effective at combining these demand-side and supply-side characteristics and reinforcing the feedback effects. These could be labelled demand-supply externalities.<sup>7</sup> More users on a platform mean more and better data, and through data-enabled learning this allows the platform to improve its efficiency and functionality, which in turns attracts more users.<sup>8</sup> For example, the more drivers use Waze, the better its traffic predictions become, and the more attractive it becomes to other drivers. Another mechanism is where having more user-generated product reviews (e.g. on a travel site or a buy-sell platform) enhances the value of the service offering to other users.

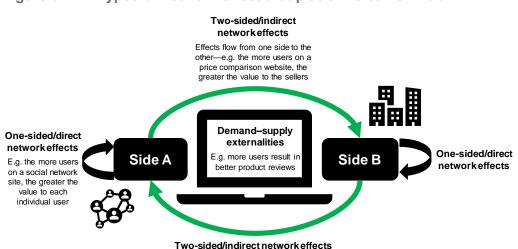


Figure 3.1 Types of network effect that platforms can exhibit

Source: Oxera.

There are many types of digital platform, and they may combine the above characteristics to different degrees. It may therefore be too simplistic to label a platform two-sided when the other features are as important. Before turning to

<sup>&</sup>lt;sup>7</sup> Some commentators refer to these effects as indirect one-sided network effects or data externalities.

<sup>&</sup>lt;sup>8</sup> See Hagiu, A. and Wright. J. (2020), 'Data-enabled learning, network effects and competitive advantage', working paper, June.



market definition, it is important to identify whether the two- (or multi-)sided nature of the platform in question is of significant importance to the platform operator's commercial decisions relative to its other characteristics—if it is, it should be factored into the SSNIP test. Other characteristics may still play a role as well.

#### 4 Where do you start with the SSNIP test?

It is important to be explicit from the outset about the nature of the hypothetical monopolist. Does it operate on both sides of the platform, or just one? That is, can it alter the attractiveness (price, quality, availability) of the platform to all types of user? This is an important question, as it determines the flexibility of the monopolist to maximise profits and therefore the results of the market definition exercise; but the question is not often acknowledged. The most sensible approach is to define the hypothetical monopolist in such a manner that it most closely reflects reality. If the real platforms in the market are two-sided, with indirect network effects between the two sides, then so should be the hypothetical monopolist.

Another starting question asks what exactly is being monopolised, and this is also often not addressed explicitly. There are three possibilities.<sup>9</sup>

- First, where a single platform is initially shared between multiple suppliers on one or both sides—such as multiple acquiring and issuing banks in a payment card scheme, selling to merchants and cardholders, respectively such that there are initially multiple prices on one or both sides. Hypothetical monopolisation means that the platform operator can now determine the single, profit-maximising price for each side.
- Second, where hypothetical monopolisation takes the form of bringing together two (or more) platforms of a similar nature where previously these were under separate ownership and were competing with each other. They remain separate platforms (e.g. two price-comparison websites brought under common ownership)—meaning that the externalities between the two sides remain platform-specific—but because of the common ownership the hypothetical monopolist is now no longer concerned about losing customers from one platform to the other. As such, there are as many prices on each side as there are platforms, but after monopolisation the platform will care less about diversion from one platform to the other and will probably increase prices overall.
- Third, as in the second case, where there are two (or more) platforms to start with. Hypothetical monopolisation can take the form of actually integrating these platforms into a single monopoly platform—such as combining two previously separate price-comparison websites into a single one.

Before applying the SSNIP test one has to be explicit about which of these situations applies and the rationale for the chosen approach.

## 5 How does the SSNIP test work for two-sided platforms?

In essence, the SSNIP test is about a comparison of prices in two situations: before and after hypothetical monopolisation of candidate products or services.

<sup>&</sup>lt;sup>9</sup> For a more detailed discussion, see Niels, G. (2019), 'Transaction versus non-transaction platforms: A false dichotomy in two-sided market definition', *Journal of Competition Law & Economics*, **15**:2-3, pp. 327–357.

The question is whether the price in the latter situation is more than 5–10% higher than the price in the former. The price after hypothetical monopolisation is simply the result of the monopolist maximising its profits over all the products that it controls—in this case, the two-sided platform(s) in question.

There is an often overlooked difference between the pure SSNIP test as it functions in theory, and the critical loss analysis used to apply the SSNIP test in practice. We discuss critical loss analysis under the next question. Here we answer the current question with reference to the theoretical SSNIP test, where the hypothetical monopolist sets profit-maximising prices.<sup>10</sup> The hypothetical monopolist test is rooted in an underlying standard demand system, where the demand for each product depends on its own price, the prices of other products, and overall income. In this system, the two sides of a platform can be treated as different products in the demand system, with positive demand externalities between them (as noted above, it makes sense to assume from the outset that the two sides are under common ownership of the platform).<sup>11</sup>

Just like the real platform operator, the hypothetical platform monopolist sets profit-maximising prices on both sides simultaneously, as a function of the own-price elasticity of demand on each side and the externalities between the two sides. The monopolist will take into account not only the fact that a price increase on one side results in a sales loss on that side (which depends on the own-price elasticity), but also the fact that this sales loss makes the platform less attractive to the other side (reflecting the externality effect). Capturing the indirect sales diversion (the diversion from side B following an increase in price and subsequent direct sales diversion from side A) is important and can be done, as we explain in response to the following question.

Where close substitutes are brought under the control of the monopolist, there is upward pricing pressure, and therefore prices will normally increase after the hypothetical monopolisation. There is no particular reason why the percentage price increase should be the same on both sides. It is well known that twosided platforms tend to have a skewed pricing structure across the two sides. Typically the platform will set a lower (or zero, or even a negative) price on the side that exerts a stronger positive externality on the other. The platform will charge more on the side where the externality exerted on the other side is weaker. By the same token, price increases on both sides that result from hypothetical monopolisation may also be asymmetric.

This can give rise to three types of outcome of the hypothetical monopolisation:

- (i) the price increases on both sides are greater than 5–10%;
- (ii) the price increases on both sides are below 5–10%; or
- (iii) the price increase on one side (A) exceeds 5–10%, but on the other side (B) it is less than 5–10%.

In outcome (i) the candidate group of products/services forms the relevant market. In outcome (ii) the candidate group of products must be expanded to include the nearest substitute. Outcome (iii) is trickier to interpret. It would seem that the monopoly platform operator faces stronger competitive constraints on side A (where it cannot raise prices by more than 5–10%) than

<sup>&</sup>lt;sup>10</sup> For a detailed explanation of the difference between the hypothetical monopolist test and critical loss analysis, see Niels, G., Jenkins, H. and Kavanagh, J. (2016), *Economics for Competition Lawyers*, Oxford University Press, second edition, chapter 2.

<sup>&</sup>lt;sup>11</sup> For an exposition of this demand system for two-sided platforms, see Kate, A. ten, and Niels, G. (2019), 'Consumer demand in two-sided markets and the platform-specific nature of externalities', working paper.



on side B (where it can). What does this imply for market definition? There are two possible interpretations.

The first interpretation follows the smallest-market principle established in the purest form of the hypothetical monopolist test.<sup>12</sup> This indicates that the candidate group of products/services are a relevant market because the platform monopolist imposes a SSNIP—i.e. on side A. A pocket of market power has been identified; bringing the products/services under common ownership allows the monopolist to raise prices on side A. No additional substitutes need to be included, lest this pocket of market power be overlooked.

However, the second interpretation of outcome (iii) is that the test so far does not provide the full picture of competitive constraints on the platform. Side B clearly still faces competition from other substitutes that prevent a SSNIP. These other substitutes must be identified.

There is no single correct interpretation. It depends on the competition concern that the market definition exercise is aiming to shed light on. If the competition concern relates purely to one side (say, side A here), the first interpretation based on the smallest-market principle will be informative. However, if the competition concern is about conduct that relates to both sides of the platform—as will often be the case given the close interaction between the two sides—the second interpretation is more appropriate. The test should further explore substitutes on side B. Delineating the market based on the price increase for side A only would be too narrow an approach. It would overlook the fact that the platform still has to compete hard for users on side B, which in turn is important for its attractiveness to side A, given the positive externalities between the sides.

## 6 Should there be one market for the platform, or two markets—one for each side?

This question has generated much confusion, probably because it captures two distinct questions. One is about the *process* of applying the SSNIP test, and one is about the *outcome*. In terms of process, it follows from the above description that it is inherent in the test that after hypothetical monopolisation there will be price changes on both sides of the platform, given that the monopolist controls both sides and takes into account the externalities between the sides. Thus, one always looks at both sides in the SSNIP test, and one always takes into account the externalities between the two sides. The outcome of the test is then a matter of interpretation of the results, as discussed above with reference to outcomes (i), (ii) and (iii).

However, as mentioned above, in practice the SSNIP test is often applied through critical loss analysis, where the price increase by 5–10% is imposed exogenously—i.e. by the analyst carrying out the market definition exercise. The question becomes whether this price increase is profitable. If the price increase results in a sales loss below the critical level, it is not profitable, and hence the market should be defined more widely.<sup>13</sup>

<sup>&</sup>lt;sup>12</sup> The hypothetical monopolist test in its purest form was articulated in the 1992 Horizontal Merger Guidelines, issued by the US Department of Justice and Federal Trade Commission. The 2010 Horizontal Merger Guidelines contain a somewhat watered-down (less theoretically pure) version of the test.
<sup>13</sup> The critical sales loss level can be derived with a simple formula that depends on the percentage price increase and the profit margin (although for two-sided platforms the formula becomes more complicated).

This formula was originally identified in Harris, B. and Simons, J. (1989), 'Focusing market definition: how much substitution is necessary?', *Research in Law and Economics*, **12**, pp. 207–226.



There are a number of ways in which one can perform critical loss analysis in two-sided markets (the literature does not identify a single correct approach).<sup>14</sup> One could apply the SSNIP test first on one side and then on the other, or on both sides simultaneously. Or one could start from a 5–10% increase on the total platform price or the weighted-average or composite price charged by the platform, and make an assumption about how this is translated into price increases on both sides. When applying such critical loss analysis to two-sided platforms, one can obtain the same three types of outcome (i), (ii) and (iii) as discussed above. Again, the relevant markets will depend on the interpretation of these outcomes.

In any of the critical loss variants, it is important to capture the indirect diversion from one side following an increase in price and subsequent direct diversion on the other side. Otherwise there is a risk of understating the competitive pressures on the hypothetical monopolist and drawing market boundaries too narrowly. To a certain extent, the immediate reaction from each group of users may capture these indirect effects. For example, sophisticated suppliers may anticipate that consumers could switch away from a platform in response to other suppliers withdrawing (some of) their offering from a platform following an increase in platform commissions, and react accordingly. However, in reality not all suppliers, and certainly not all consumers, will immediately react to changes in the level of demand on the other side. As such, it can be useful to gather supplementary information on indirect effects—for example, how consumers have responded in the past to a reduction in coverage of suppliers on the platform.

## 7 Is there a distinction in market definition between transaction and non-transaction platforms?

The short answer to this question is no. From a theoretical perspective, the above logic—that the hypothetical monopolist takes into account the externalities between the two sides of the market when setting prices—applies to all two-sided platforms where such externalities are strong.<sup>15</sup>

In the literature, and in some competition cases, a suggestion has been made that there is a distinction between transaction and non-transaction platforms for market definition purposes. For example, the UK Competition and Markets Authority (CMA) referred to this distinction in its 2017 decision on the merger between Just Eat and Hungryhouse, two online food ordering platforms bringing together restaurants and consumers:<sup>16</sup>

We first consider whether separate markets should be defined on each side of the platform. For this purpose, a distinction can be made between two-sided markets which facilitate transactions between customers on each side of the platform (such as auction houses or credit card services) and those two-sided platforms which do not facilitate transactions (eg 'media-type' platforms like radio stations and newspapers).

In some two-sided markets, which do not facilitate transactions between each side of the platform, the Parties may face very different competitive constraints on each side of the market. For example, a local radio station may face very

 <sup>&</sup>lt;sup>14</sup> This is explained in more detail in Niels, G. (2019), 'Transaction versus non-transaction platforms: A false dichotomy in two-sided market definition', *Journal of Competition Law & Economics*, **15**:2-3, pp. 327–57.
 <sup>15</sup> See Niels, G. (2019), 'Transaction versus non-transaction platforms: A false dichotomy in two-sided market definition', *Journal of Competition Law & Economics*, **15**:2-3, pp. 327–57.

<sup>&</sup>lt;sup>16</sup> Competition and Markets Authority (2017), 'Just Eat and Hungryhouse', 16 November, para. 4.11. Footnotes are omitted from the quote. The main academic paper advocating this distinction is Filistrucchi, L., Geradin, D., van Damme, E., and Affeldt, P. (2014), 'Market definition in two-sided markets: theory and practice', *Journal of Competition Law and Economics*, **10**:2, pp. 293–339.



different constraints in the market for selling advertising from those it faces in the market for attracting listeners. In those cases, it may be necessary to define two separate markets: one on each side of the platform, with distinct product and geographic scopes and separate sets of competitors and competitive constraints.

In the case of a two-sided platform where the platform is 'matching' or facilitating transactions (as is the case for food delivery marketplaces), a single market definition is appropriate, which takes account of the competitive constraints on both sides of the market and assesses the hypothetical monopolist's ability to increase the price of concluding a transaction, given the number of close substitutes on each side and the impact of any [indirect network effects] on the platform.

However, it is not the lack of a transaction that is driving the potential differences in market dynamics; it is rather that the strength of the network effects in both directions may differ between radio stations and matching marketplaces. It may be the case that, in media-type platforms such as radio stations, network effects are predominately positive in one direction—from consumers to advertisers (we discuss this below). In contrast, the nature of matching platforms means that the strength of the network effects tends to be more symmetric: buyers benefit from more sellers to a similar degree to the way in which sellers benefit from more buyers.

Furthermore, it is not even clear in practice that such a distinction between transaction and non-transaction platforms would be workable. In the real world there is a spectrum of interactions between the different sides of platforms, with transactions simply being at one end of the spectrum, and mere interactions of various sorts being at the other. What matters for market definition is the nature of the externalities between the two sides and how the platform operator takes these into account when setting prices—this is the same for all two-sided platforms with network externalities, regardless of the precise nature of the interaction between the sides.

Take the example of price-comparison websites for specific products, such as private homes, car insurance or flights. These websites are generally set up to bring potential buyers and sellers together. However, a range of business models and charging structures exist for such sites, and not all of them are clearly classifiable as 'transaction platforms'. Some of these platforms-for example, in real estate-charge the seller primarily for placing an advertisement on the site. Others go a step further and (in addition or instead) charge the seller each time a potential buyer clicks on the advertisement. Yet others may charge the seller each time a potential buyer contacts the seller via the platform and requests a quote, as in the case of price-comparison sites for car insurance products. Finally, some price-comparison websites have turned into platforms where the buyer and seller actually exchange the product, and the platform charges a commission fee (to one or both sides). Which of these price-comparison websites can be classed as a transaction platform, and which are non-transaction platforms? This is not clear, but nor should this be a decisive question for market definition. All of these price-comparison sites set their prices on both sides as a function of the own-price elasticities on each side and the externalities between the sides.

#### 8 What if the externalities flow in only one direction?

As is the case for the CMA's radio station example above, sometimes the externality between two sides flows in only one direction. Advertisers care about the number of listeners on the platform, but those listeners do not particularly care about the advertising (or may even view it negatively).



In these situations, it is still important to take into account the externalities that do exist and consider the competitive constraints on both sides of the platform when defining the market. This is because the platform still sets its profitmaximising prices on both sides simultaneously, taking into account any network effects between the two sides when it does so. For example, in the case of a media platform where the externalities flow only from viewers to advertisers, the hypothetical monopolist will set a lower price to (or compete more aggressively for) viewers than if such one-way network effects did not take place.

To put it in broader terms, if one carried out a SSNIP test on the side of advertisers only, and found that the hypothetical monopolist could increase prices profitably, this might overlook the fact that the platform competes fiercely on the other side to attract listeners (or viewers)—this is akin to outcome (iii) in the earlier discussion. If the competition concern in question relates only to the advertising side (e.g. excessive pricing or a refusal to supply), this oversight may not be a problem, as the market definition exercise identified a lack of competitive constraint on the advertising side. However, if the competition concern relates to both sides of the market—e.g. in the context of a merger—one must analyse the full competitive constraints faced by the platform and therefore consider both sides.

## 9 What if the price is zero and/or competition is on non-price features on one side of the platform?

Another situation that is often discussed in the context of two-sided market definition is where one of the sides charges no price. In a number of cases involving media platforms, competition authorities have unduly ignored the two-sided nature of a platform for this reason. In particular, in cases involving free-to-air TV platforms, the focus of the authorities has frequently been on defining the market on the advertising side only, on the basis that the service was free on the viewer side.<sup>17</sup> Similarly, many online platforms that are primarily ad-funded do not charge consumers on the other side (although consumers may effectively 'pay' in the form of providing their data).

It is well understood among economists that zero prices on one side can simply be a reflection of the optimal pricing structure for two-sided platforms. Market definition for such platforms must still consider both sides and the externalities between them. Less understood is how exactly to apply the hypothetical monopolist test to zero prices. We offer two solutions here.

- First, one might still test whether a small price increase would be profitable after hypothetical monopolisation; it is just not possible to express this price increase as a percentage of the (zero) starting price.
- Second, instead of a SSNIP one can consider a change to another dimension of competition, such as a small reduction in quality. Much has been written about the 'SSNDQ' test as the non-price equivalent of the SSNIP test, where SSNDQ stands for small but significant and nontransitory decrease in quality.<sup>18</sup>

<sup>&</sup>lt;sup>17</sup> Examples include the European Commission decision in Case No. COMP/JV.37 – *BSkyB/Kirch Pay TV*, 21 March 2000, and the Bundeskartellamt decision in *Springer/ProSiebenSat1*, 24 January 2006. See Filistrucchi, L., Geradin, D., van Damme, E. and Affeldt, P. (2014), 'Market definition in two-sided markets: theory and practice', *Journal of Competition Law and Economics*, **10**:2, pp. 293–339.

<sup>&</sup>lt;sup>18</sup> For example, see OECD Competition Committee (2013), 'The role and measurement of quality in competition analysis', policy roundtables, 28 October.



Indeed, the SSNIP test is introduced in the Commission's Market Definition Notice as 'one way' to identify market boundaries and on 'practical' and 'operational' grounds.<sup>19</sup> This leaves open the option of considering alternative features, particularly where doing so would be more practical. Zero prices indicate strong price elasticity of demand, which may indicate that users are relatively less responsive to dimensions of competition other than price, such that the hypothetical monopolist test can achieve a larger increase in profits by reducing expenditure on other features such as customer rewards, usability of the platform, or advertising. Applying the SSNIP framework to non-price features will be difficult in practice (even more difficult than applying it to price), but it nonetheless provides a useful thought framework for asking the right questions about market definition.

A variation of this theme is where the platform competes on multiple non-price features on one side. Take a price-comparison website that competes for consumers by means of brand advertising, offering rewards, technical usability of the platform, and the number of vendors on the other side of the platform. Along each of these dimensions one could explore, as a thought experiment at least, whether consumers would switch to other sales channels if the platform reduces the service level or quality by a small but significant amount, equivalent to the SSNIP.

#### 10 Can the market include non-platform competitors?

According to the US Supreme Court the answer to this question is no: in the 2018 American Express judgment it held that 'only other two-sided platforms can compete with a two-sided platform for transactions'.<sup>20</sup> But this is incorrect. There can be a spectrum of ways in which users on either side of the market interact with each other, not all of which are through two-sided platforms. Platforms can face competition from other channels through which their users interact, including direct interactions between the two sides.

To see this, let's go back to the basic market function of two-sided platforms, which is to bring the two sides together and enable them to interact. Evans and Schmalensee (2016) describe this in business terms as platforms reducing friction:

Every successful matchmaker is formed in response to a significant friction that prevents market participants from getting together efficiently...The bigger the friction, the greater the value the platform can potentially provide, the greater the opportunity for getting participants on board, and the greater the chance for the platform to make money.<sup>21</sup>

OpenTable, an online restaurant booking platform, is one of their examples people and restaurants were making and taking direct bookings before the platform existed, and continue to do so. As such, booking platforms are not the only means for the two sides to interact.

What this means for market definition is that two-sided platforms may compete with different types of channel through which users on both sides interact. Not all of these alternatives are two-sided platforms as such. It may well be that a market definition exercise for OpenTable and other restaurant booking

<sup>&</sup>lt;sup>19</sup> European Commission (1997), 'Commission notice on the definition of relevant market for the purposes of Community competition law', 97/C 372/03, 9 December, https://eur-lex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:31997Y1209(01)&from=EN, para. 10. <sup>20</sup> 585 U.S. 14 (2018).

<sup>&</sup>lt;sup>21</sup> Evans, D. and Schmalensee, R. (2016), Matchmakers: The New Economics of Multisided Platforms, Harvard Business Review Press, p. 152.



platforms finds that the hypothetical monopolist would not impose a SSNIP to restaurants or diners because too many of them would revert to direct bookings. Similarly, price-comparison websites for car insurance policies may compete with insurance companies selling policies directly through their own online and offline channels.<sup>22</sup> Thus, contrary to what the US Supreme Court said, one cannot state a priori that two-sided platforms compete only with other two-sided platforms.

#### 11 Concluding remarks

Two-sided market definition is far from straightforward. Yet, as we have set out here, the SSNIP test provides a useful framework for market definition that can also be applied to two-sided platforms. It is important that two-sided market definition takes into account the externality effects between the two sides, for the simple reason that real-world platforms also base their commercial decisions on such externalities. Focusing the market definition on only side risks overlooking an important competitive dynamic in the market.

Market definition is an intermediate step in the competition analysis, not an end in itself. It is meant to be informative for the subsequent analysis of market power (or dominance) and effects on competition. Once the market for the twosided platform in question has been defined, one must still determine the degree of market power of the platform vis-à-vis competitors in the market. This raises some further challenges, such as measuring market shares (which can differ between the sides), the degree of multi-homing by users of the platform on one or both sides, and taking account of the dynamic nature of the market—is the market prone to 'tipping' to one dominant platform, and is there potential competition *for* the market by new platforms? These challenges can be as difficult, and as decisive, as defining the market for two-sided platforms.

For the steps after market definition, the same principle applies that it is important to take into account the externality effects between the two sides of the platform. Focusing the analysis on only one side risks overlooking an important competitive dynamic in the market. On a number of occasions we have seen cases where the court or the authority acknowledges the two-sided nature of the market, but then proceeds to assess the competitive effects on only one side. But that is a topic for another article.

<sup>&</sup>lt;sup>22</sup> In its inquiry into private motor insurance, the CMA did consider direct channels as a potential constraint on price-comparison websites, but rejected this based on its analysis: 'We have set out above the economic analysis underlying our defining PCWs as a market. We have noted that direct sale to consumers by insurers and brokers is a constraint on PCWs but not a sufficiently strong one to prevent PCWs from being a separate market.' Competition and Markets Authority (2014), 'Private motor insurance market investigation final report', 24 September, para. 434.

