Multiple Sides, Multiple Challenges

The Need for a Uniform Approach in Defining the Relevant Product Market in Abuse of Dominance Cases on Multi-Sided Markets

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1 Introduction

1.1 Background

In a recent decision, the Commission found after several years of investigation that Google\textsuperscript{1} was in breach of competition law by abusing its dominant position.\textsuperscript{2} The Commission concluded that Google had favored its own comparison shopping service by giving it a systematically prominent placement among the search results in its search motor. The decision has given rise to debate, ranging from the definition of the relevant product market used by the Commission to the remedies imposed. Perhaps the most notable remedy was the fine of €2.42 billion.\textsuperscript{3} Google has appealed the decision.\textsuperscript{4} The decision showcases some of the difficulties that emerge when the undertaking under scrutiny is active on a multi-sided market.

Multi-sided markets are not a wholly new phenomenon, but their prevalence has grown significantly. The properties of these markets pose difficult challenges when assessed through the lens of competition law. The traditional market is single-sided and consists of a seller of a good and buyers of that good, which means that the seller tends to one group of customers. But on a multi-sided market, the seller tends to two (or more) groups of customers at the same time. Between these sets of customers, or sides, exists an intermediary that connects them and allows them to interact with each other in different ways.

Difficulties arise not least when the relevant product market is to be defined. A question that has become a new step in this process is whether one or two markets should be defined. If one market is defined, the relevant product market encompasses both sides. If two or more separate markets are defined, each product market represents one of the sides. Both of these

\textsuperscript{1} A subsidiary of Alphabet.
\textsuperscript{2} AT.39740 – Google Search (Shopping), C(2017) 4444 final (Google Shopping Decision).
\textsuperscript{3} Commission, press release IP/17/1784.
\textsuperscript{4} Case T-612/17, Alphabet v Commission, judgement pending.
methods come with their own risks of incorrectly assessing the competitive constraints faced by a firm.

Another challenge related to product market definition is the measuring of substitutability. The multi-sided model allows for the intermediary to charge different prices to the different sides. An extreme example of this is the many online platforms, such as Google Search, that do not charge any price at all to one of the sides. On those sides, the platforms do not compete on price, but on other properties. How should, for example, tools that assume that competition takes place on the basis of price be applied on a market with zero-pricing?

These are the themes of this study. They are examined through the perspective of Article 102 of the Treaty on the Functioning of the European Union (TFEU), which prohibits the abuse of a dominant position.

1.2 Objective of the Study and Research Questions

The objective of this study is to examine how the relevant product market is defined when the examined market is multi-sided, and the ramifications of this when applying Article 102 TFEU to undertakings active on multi-sided markets. Both the Courts and the Commission have dealt with cases concerning multi-sided markets, with different methods of approaching them. The amount of cases concerning multi-sided markets can only be expected to grow, and there are several high-profile cases being under the Commission’s scrutiny. As this still is a fairly new area of competition law, an examination of the methods used is warranted. This can contribute to a clarification of whether a certain method exists when approaching multi-sided markets, and if the method is appropriate.

Multi-sided markets pose a row of challenges to competition law and to examine all these aspects of multi-sided markets would be an impossible feat in a study of this size. Therefore, the scope has to be narrower in order to reach a result of value. The study will consider one difficulty presented by multi-sided markets, namely the definition of the relevant product market. Additionally, the finding of dominance or non-dominance when applying Article 102 TFEU depends in part on the product market definition. It is therefore of interest to see which consequences are associated with the different ways of defining the relevant product market. Thus, this study aims to answer the following questions:
1. How is the relevant product market defined when examining multi-sided markets?
2. What are the consequences of different ways to define the relevant product market with regards to the question of dominance in the application of Article 102 TFEU?

The answering of both of the questions includes an analysis of the advantages and disadvantages of different methods, and is therefore in parts normative.

### 1.3 Method and Materials

Since a part of this study’s objective is the clarification and analysis of *de lege lata* of Article 102 TFEU, one method to be used is the legal dogmatic method. Pursuant to this, case law, statutes and legal doctrine will be treated in the technique this method provides. Economics plays a central role in competition law. Hence, some parts of the posed question will be examined with the use of law and economics. This method will be used fairly extensively, as economic theory is central to some aspects of defining the relevant product market. This can bring valuable perspectives, since its main purpose is to view the suitability of a legal phenomenon from an economic viewpoint.\(^5\) As a consequence of this, considerations that otherwise would have been overlooked will be included in the analysis and discussion.

Because the topic of the study falls under EU law, the main source of materials consists of case law from the EU Courts and the Commission’s decisional practice. This is necessary since one of the objectives is to establish *de lege lata*, and EU law is heavily developed by case law.\(^6\) Although the theme of the study is Article 102 TFEU, case law and decisional practice concerning Article 101 TFEU will also be examined. This is done for two reasons. First, there are more cases concerning Article 101 TFEU and multi-sided markets. Second, the procedures of defining the market in Article 101 TFEU cases and Article 102 cases are the same, barring for some considerations that are unique to the latter. These will be accounted for when appropriate.

In light of the Commission’s central role in competition matters, its guidelines, reports, decisions and other types of documents are valuable sources. Additionally, legal and

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\(^5\) Bastidas, *Rättsekonomi*, p. 175.
\(^6\) Reichel, *EU-rättslig metod*, p. 115.
economic doctrine will serve both as a representation of different conclusions drawn from the described cases and principles, as well as a foundation for further discussion.

It should be noted that Article 82 of the EC Treaty became Article 102 TFEU after the Lisbon Treaty. Since no material changes were made to the provision, case law, the Commission’s guidelines and decisions, etc. regarding Article 82 hold the same relevance regarding Article 102 TFEU.

1.4 Delimitations

The focus of the study is Article 102 TFEU, but Article 101 TFEU will be touched upon where there is case law and decisional practice that is relevant for both provisions. Other than that Article 101 TFEU falls outside the scope of the study.

The study does not examine Swedish competition law, as the focus is EU competition law. Different types of dominance, for example collective dominance, is not examined. Furthermore, since the objective of the study pertains to the relevant product market, the defining of the relevant geographic and temporal market falls outside the scope of the study.

The difference between supply side substitution and potential competition can be difficult to recognize. Nonetheless, the latter is not part of defining the relevant product market, and is therefore not studied.

Substantial market power and dominance are described in more general terms in order to put the process of market definition in context. But, a more detailed examination of these concepts falls outside the scope of the study.

1.5 Outline

Chapter 2 examines the general aspects of Article 102 TFEU. This examination includes a brief discussion about the degree of dominance and how it can influence the abuse assessment. This is relevant as it puts the study’s question in its context, and since the market definition results in not only dominance or non-dominance, but also a degree of dominance. It therefore serves as a basis for the following chapters. Chapter 3 examines how the relevant product market is defined in general. Chapter 4 describes multi-sided markets and the
problems they pose when defining the relevant product market. Chapter 5 examines decisional practice and case law concerning market definition when the undertaking is active on a multi-sided market. Chapter 6 consists of an analysis of the results and conclusions. Lastly, a summary is presented in chapter 7.
2 Background

2.1 Description of Article 102 TFEU

Article 102 TFEU is aimed at dealing with monopolies and undertakings with substantial market power. In contrast to Article 101 TFEU, which focuses on agreements and concerted practices between undertakings, Article 102 TFEU focuses on the individual conduct of an undertaking that holds a dominant position.  

Article 102 TFEU states:

“Any abuse by one or more undertakings of a dominant position within the internal market or in a substantial part of it shall be prohibited as incompatible with the internal market in so far as it may affect trade between Member States.

Such abuse may, in particular, consist in:

(a) directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions;

(b) limiting production, markets or technical development to the prejudice of consumers;

(c) applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;

(d) making the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts.”

It can be derived from the wording of the provision that the stated conducts are especially indicative of an abuse, but that the list is not exhaustive and other conducts that are not pointed out may constitute an abuse as well.

It is also possible to derive several cumulative elements for Article 102 TFEU to be applicable.  

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7 Jones and Sufrin, *EU Competition Law*, p. 258.
8 Jones and Sufrin, *EU Competition Law*, p. 259.
It is important to mention that Article 102 TFEU does not prohibit dominance itself; it is the abuse of a dominant position that is prohibited. In *Michelin*, the Court pointed out that “[a] finding that an undertaking has a dominant position is not in itself a recrimination but simply means that […] the undertaking concerned has a special responsibility not to allow its conduct to impair genuine undistorted competition on the common market.”9 The special responsibility that the Court refers to builds on the concept that a certain conduct may be legal or illegal, depending on if it is conducted by a non-dominant or a dominant undertaking. That is, a certain behavior which is competitive when exercised by a non-dominant undertaking may be deemed harmful to competition if exercised by a dominant undertaking and therefore prohibited.10 Thus, a dominant undertaking is imposed a special responsibility not to harm competition.

2.2 The Concept of Dominance

2.2.1 General

In *United Brands* a dominant position was described as “a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by giving it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers.”11 In *Hoffmann-La Roche*, it was further stated that “[s]uch a position does not preclude some competition, […] but enables the undertaking which profits by it, if not to determine, at least to have an appreciable influence on the conditions under which that competition will develop, and in any case to act largely in disregard of it so long as such conduct does not operate to its detriment.”12

After conducting a review of its policy regarding Article 102 TFEU in light of an overall modernization of the enforcement of competition law, the Commission published a Guidance on the Commission’s enforcement priorities in applying Article 102 TFEU to abusive exclusionary conduct by dominant undertakings (the Guidance Paper), which emanated from the DG Competition discussion paper on the application of Article 82 of the

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10 Jones and Sufrin, EU Competition Law, p. 260.
Treaty to exclusionary abuses (the Discussion Paper). In the Guidance Paper, the Commission states that the notion of independence is related to the degree of competitive constraint exerted on the undertaking in question, and that dominance entails that the undertaking in question enjoys substantial market power over a period of time. Accordingly, an undertaking which is capable of profitably increasing prices above the competitive level for a significant period of time does not face sufficient competitive constraints and can therefore generally be regarded as dominant. The term increased prices is used as a shorthand and therefore also includes several ways in which parameters of competition, such as output, innovation and the quality of goods, can be influenced to the advantage of the dominant undertaking and to the disadvantage of consumers. The EU Courts’ “behavioral” definition and the Commission’s “structural” definition are said to be reconcilable, as the ability to harm competition presupposes substantial market power.

2.2.2 Quasi-Monopolies and Super-Dominance
The abuse assessment falls outside the scope of this study. However, it should be noted that in some cases the degree of dominance can in itself play a role in the abuse assessment. As described in section 2.1, a dominant position comes with a special responsibility not to harm competition. A question that has been discussed is whether that special responsibility grows in relation to the undertaking’s degree of dominance. This question surfaced in TeliaSonera. One of the referring court’s questions was whether the degree of market strength enjoyed by the dominant undertaking affected the legality of its pricing practices. The Court of Justice (CJ) began by explaining that Article 102 TFEU does not provide for variations in degree in the concept of a dominant position. An undertaking’s conduct must be assessed in the light of whether the undertaking is dominant or not. The CJ continued by stating that although the important factor is whether the undertaking is dominant or not, the undertaking’s strength is not irrelevant to the assessment of the lawfulness. However, “the degree of market

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16 TeliaSonera, para. 80.
strength is, as a general rule, significant in relation to the extent of the effects of the conduct of the undertaking concerned rather than in relation to the question of whether the abuse as such exists.”\(^\text{18}\) In this statement, the CJ referred to *Tetra Pak II* and *Compagnie Maritime Belge*, which confirmed that these cases are the exception to the general rule.\(^\text{19}\) In *Tetra Pak II*, Tetra Pak’s “quasi-monopoly” in itself affected the abuse assessment.\(^\text{20}\) In the abuse assessment in *Compagnie Maritime Belge*, the undertaking’s “superdominance” had a determinative function as well.\(^\text{21}\)

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\(^{18}\) *TeliaSonera*, para. 81. This general rule was reiterated in Case C-549/10 P, *Tomra Systens ASA v Commission*, EU:C:2012:221, para. 39.


\(^{20}\) *Tetra Pak II*, paras. 24, 31.

\(^{21}\) *Compagnie Maritime Belge*, paras. 114-120.
3 The Relevant Product Market

3.1 Introduction

As stated above, one of the elements for an abuse of a dominant position to be established is that the undertaking is dominant. Only by defining the relevant market is it possible to point out the competitive constraints faced by an undertaking, and thereby making possible the consideration whether an undertaking is dominant.\(^{22}\) Thus, in order to assess whether the undertaking is dominant, it is necessary to determine the boundaries of the market on which the undertaking in question is active.

In Continental Can, regarding the relevant product market, the CJ stated that:

“[f]or the appraisal of [the undertaking’s] dominant position […], the definition of the relevant market is of essential significance, for the possibilities of competition can only be judged in relation to those characteristics of the products in question by virtue of which those products are particularly apt to satisfy an inelastic need and are only to a limited extent interchangeable with other products.”\(^{23}\)

In its Notice on the Definition of the Relevant Market (the Market Definition Notice), the Commission states that:

“[a] relevant product market comprises all those products and/or services which are regarded as interchangeable or substitutable by the consumer, by reason of the products’ characteristics, their prices and their intended use.”\(^{24}\)

It can be derived from these statements that the relevant product market consists of products\(^{25}\) that are interchangeable or substitutable with each other. In other words, the relevant product market contains products which are substitutes for one another.\(^{26}\)

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\(^{24}\) Commission Notice on the Definition of the Relevant Market for the Purpose of Community Competition Law [1997] OJ C372/5, para. 7. This definition was reiterated by the Court in Case T-427/08, Confédération européenne des associations d’horlogers-reparateurs (CEAFR) v Commission [2010] ECR II-5865, para. 68.

\(^{25}\) If not explicitly stated otherwise, "products" include both products and services.

\(^{26}\) Jones and Sufrin, *EU Competition Law*, p. 60.
Substitutability is assessed from two perspectives: demand substitution and supply substitution.

### 3.2 Demand Substitutability

#### 3.2.1 Purpose of the Measuring

The purpose of measuring demand substitution is to find out which products customers consider to be substitutable with each other. The existence of substitutes constitutes a competitive constraint on the undertaking and is "the most immediate and effective disciplinary force on the suppliers of a given product, in particular in relation to their pricing decisions." The constraint consists of customers being in a position to switch easily to another product, which prevents a firm from having a significant impact on sales prices, for example.

#### 3.2.2 Qualitative Measures

There are several different ways to qualitatively measure substitutability. One way is to examine the product’s characteristics and its intended use. However, according to the Commission, these factors are inadequate as the sole material for defining the relevant product market. Rather, their function is described as a first step to limit the field of investigation of possible substitutes. One reason for this inadequacy is the possibility that customers may not value different characteristics enough for them to substitute the products with another.

A rather famous product market definition was made in *United Brands*. The Court had to decide whether bananas were part of the fresh fruit market, or if they formed a market on their own, sufficiently homogenous and distinct from the market of fresh fruit in general. The Court stated that the banana “has certain characteristics, appearance, taste, softness,

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27 Any difference between customers and consumers is disregarded in this context.
29 Market Definition Notice, para. 13.
30 Market Definition Notice, para. 13.
31 Market Definition Notice, para. 36.
33 *United Brands*, para. 12.
seedlessness, easy handling, a constant level of production which enable it to satisfy the constant needs of an important section of the population consisting of the very young, the old and the sick.”

The common denominator between the very young and the old has been interpreted as a lack of teeth. Thus, for some groups of customers, the softness of the banana was regarded as a trait that makes other fruits inappropriate as substitutes.

In Microsoft, the product’s characteristics were of significance for the market definition as well. The contested issue relevant for this section was that of defining the market for media players. In its decision, the Commission stated that the Windows Media Player was the only media player available in the market that provided all the functionalities available at that time in a media player (such as streaming, for example). After an examination of different media players’ functionalities and consumers’ preferences, the Commission concluded that “[w]hile a streaming media player is […] a substitute for media players which deliver less functionality, substitution the other way round is not readily available as less performing media players do not satisfy specific consumer demand, such as demand for streaming […]” This phenomenon, when demand substitutability is only present in one direction, is described as asymmetrical substitution. The Commission’s conclusion, which was upheld by the Court, was that by reason of its specific characteristics and the lack of realistic substitutes, the market for streaming media players constituted a relevant product market. The Court stated further qualitative criteria that can be applied:

“[…] a series of factors based on the nature and technical features of the products concerned, the facts observed on the market, the history of the development of the products concerned and also Microsoft's commercial practice demonstrate the existence of separate consumer demand for streaming media players.”

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34 United Brands, para. 31.
37 Microsoft Decision, para. 411.
38 Microsoft Decision, para. 415.
39 Jones and Sufrin, EU Competition Law, p. 61.
40 Microsoft Decision, para. 425.
41 Microsoft, para. 925.
3.2.3 Quantitative Measures

The Court’s definition of the relevant product market in United Brands has been heavily criticized. Some commentators have argued that “[t]he important question […] was not ‘will the toothless switch to other fruit in response to a rise in the price of bananas?’, but ‘will enough customers switch to other fruit in response to a rise in the price of bananas to make that price unprofitable?’” 42 The Court’s reasoning has given rise to the term “the toothless fallacy”, which means that the focus of the analysis is, incorrectly, a certain group of customers or average customers. 43 The critique can be interpreted as an endorsement of the SSNIP test, which will be described in this section.

The SSNIP test is one way of quantitatively assessing the relevant product market. SSNIP is an acronym for a “Small but Significant Non-transitory Increase in Price”. Other names for this test are the Hypothetical Monopolist Test and the 5% test. 44 The purpose of the test is to determine whether an increase in price of a product would be profitable for the supplier. The SSNIP test’s starting point is therefore the assumption that the price of a product, for example milk chocolate, is increased by 5-10%. Then the question is posed whether customers of milk chocolate would buy another product, for example licorice, because of the increased price. If few customers start to buy licorice instead, resulting in an increase in revenue greater than the loss of sales, then the increase in price is profitable. That would mean that milk chocolate constitutes the relevant product market. But if customers buy licorice instead of milk chocolate to an extent that makes the increase unprofitable, because the loss of sales exceeds the increased revenue, the relevant product market does not consist of milk chocolate alone. If that is the conclusion, licorice constitutes a competitive constraint on suppliers of milk chocolate and is therefore included, and the test is re-applied. This procedure is repeated until the increase in price is profitable, which means that the relevant product market has been defined since there are no other substitutable products than those included. 45

43 Bishop and Walker, The Economics of EC Competition Law, p. 135.
44 Bishop and Walker, The Economics of EC Competition Law, p. 111.
45 Bishop and Walker, The Economics of EC Competition Law, p. 111-117.
What the SSNIP test therefore does is to display demand substitutability. The reason that the increase in price of milk chocolate is unprofitable, if that is the case, is that a large enough group of customers see licorice as a substitute for milk chocolate. If not, they would (to a certain extent) keep buying milk chocolate despite the increased price.

This aspect of the SSNIP test illuminates a problem with the test that calls for caution when applying it to Article 102 TFEU cases. It is possible that a monopolist already charges monopoly prices, as a consequence of competition previously having been distorted.\(^46\) This would mean that the price is not at the competitive level, since the undertaking has already profitably raised the price. A reason for the undertaking’s possibility to do so might be that substitutability is low at the competitive price-level. Because of this, it is possible for the undertaking to raise its price-level above the competitive level. Therefore, when the SSNIP test is applied on the monopoly price, the tipping point may be reached where the loss of sales is greater than the increased revenue, because products that up until the monopoly price-level were not substitutes now become substitutes.\(^47\) The result of this is another fallacy, called the “cellophane fallacy”. The outcome of this fallacy might therefore be the inclusion of false substitutes, which in turn leads to an overly broad market definition.\(^48\) This means that the risk of incorrect findings of non-dominance is present when utilizing the SSNIP test in abuse of dominance cases, and this is why caution is warranted.

Though more uncommon, the application of the SSNIP test may also lead to an incorrect finding of dominance. This is called the “reverse cellophane fallacy”, and can be the result of applying the SSNIP test to price levels that are, for example, set below-cost by regulatory fiat. The effect of the fallacy is, as the name implies, the opposite of that of the cellophane fallacy: the market is defined overly narrow. This effect occurs because other products appear to be weaker substitutes than they really are, since the initial price-level is uneconomically low.\(^49\) Under these circumstances, the increase in price might be significant, but not sufficient. Another reason why a price-level is below-cost might be that an undertaking exercises

\(^{46}\) Whish and Bailey, *Competition Law*, p. 32.
\(^{48}\) Whish and Bailey, *Competition Law*, p. 32.
\(^{49}\) Aron and Burnstein, *Regulatory Policy and the Reverse Cellophane Fallacy*, p. 3.
predatory pricing. If the market is defined too narrowly, the undertaking might be erroneously deemed dominant and therefore found to be abusing its dominant position, when the pricing strategy in actuality is competitive. The further meaning of incorrect findings of dominance and non-dominance is explained in Section 3.4.

It should also be noted that the underlying assumption of the SSNIP test is that (substitutable) products compete on price.50 As will be shown in section 6.2, this assumption constitutes an additional risk of incorrect findings when competitive constraints stem from other properties than price.

3.2.4 The SSNIP Test in Relation to Other Measures

In the Market Definition Notice, the Commission states its description of the SSNIP test, which contains no apparent difference from the description given above.51 In the Discussion Paper the Commission confirms the special challenges of defining the relevant product market in abuse of dominance cases, and states that “[t]he existence of the cellophane fallacy implies that market definition in Article [102 TFEU] cases needs to be particularly carefully considered and that any single method of market definition, including in particular the SSNIP test, is likely to be inadequate. It is necessary to rely on a variety of methods for checking the robustness of possible alternative market definitions.”52

Regarding this flexibility, the Commission further states that it “follows an open approach to empirical evidence, aimed at making an effective use of all available information which may be relevant in individual cases. The Commission does not follow a rigid hierarchy of

50 Jones and Sufrin, EU Competition Law, p. 73.
51 Market Definition Notice, para. 17: “The question to be answered is whether the parties’ customers would switch to readily available substitutes or to suppliers located elsewhere in response to a hypothetical small (in the range 5% to 10%) but permanent relative price increase in the products and areas being considered. If substitution were enough to make the price increase unprofitable because of the resulting loss of sales, additional substitutes and areas are included in the relevant market. This would be done until the set of products and geographical areas is such that small, permanent increases in relative prices would be profitable.”
different sources of information or types of evidence.” This flexibility has been approved by the Courts.

3.3 Supply Substitutability

When suppliers of product X, that is not a substitute on the demand-side, can swiftly and without incurring any significant costs switch their production into producing product Y that is a demand-side substitute, supply substitution is present. This renders products X and Y to be part of the same relevant market. Thus, the presence of supply substitution broadens the definition of the relevant product market.

Supply substitution was established in Continental Can as a necessary parameter to include when assessing the relevant product market. The Commission had found several distinct markets for metal containers made for containment of food. The CJ instead held that “a dominant position on the market for light metal containers for meat and fish cannot be decisive, as long as it has not been proved that competitors from other sectors of the market for light metal containers are not in a position to enter this market, by a simple adaption, with sufficient strength to create a serious counterweight.”

In the Market Definition Notice, the Commission uses paper as an example. According to the example, paper is usually supplied in a range of different qualities. From the demand-side’s perspective, the different types of paper serve different purposes, and are therefore not substitutes. However, the same materials are used for the different qualities, and the production can be adjusted with negligible costs and in a short period of time. Paper

53 Market Definition Notice, para. 25.
54 See for example Case T-699/14, Topps Europe Ltd v Commission, [2017] not yet reported (Topps Europe Ltd), para 82, where the Court refers to the relevant paragraph in the Market Definition Notice, and also states, by reason of the applicant’s claim, that “the Commission did not […] commit a manifest error of assessment in basing its conclusions on the relevant market on its assessment of the evidence gathered without having recourse to an SSNIP test.” See also Case T-7175/12, Deutsche Börse v Commission, EU:T:2015:148, para. 133 and Case T-342/07, Ryanair v Commission, EU:T:2010:280, para. 136.
manufacturers are therefore able to compete for orders of the various qualities. This would lead to the various qualities being included in the relevant product market.57

That supply substitutability can have the same effect as demand substitutability is explained in the Market Definition Notice: “the additional production that is put on the market will have a disciplinary effect on the competitive behaviour of the companies involved. Such an impact in terms of effectiveness and immediacy is equivalent to the demand substitution effect.”58 This means that firms that produce a good and quickly can switch production into another, substitutable good, constitute a competitive constraint. The SSNIP test can be used to measure supply substitutability as well, and it demonstrates why the competitive constraints by supply substitution can have an equal effect as demand substitution. Assume that milk chocolate and dark chocolate are not demand side substitutes, and that a producer of dark chocolate raises the price by 5-10%. For producers of milk chocolate it would likely be easy to switch their production to dark chocolate by making a few changes in the ingredients and sell it at market value, making the increase in price that prompted the switch in production unprofitable. This would lead to dark chocolate being included in the relevant product market, even though it is not a demand substitute for milk chocolate. The test is applied until no more producers switch their production into substitutes, rendering the increase in price profitable.59

The Court of First Instance stated in easyJet, with reference to the Market Definition Notice, that “from an economic point of view and for the definition of the relevant market, demand substitution constitutes the most immediate and effective disciplinary force on the suppliers of a given product”.60 With reference to this statement, it was stated in Amann & Söhne that even though demand substitutability is the most immediate and effective assessment criterion, supply-side substitutability may also be taken into account if it has the equivalent competitive effects of demand substitutability in terms of immediacy and effectiveness.61

57 Market Definition Notice, para. 22.
58 Market Definition Notice, para. 20.
59 Jones and Sufrin, EU Competition Law, p. 68.
61 Case T-446/06, Amann & Söhne [2010] ECR II-1255, para. 57. See also Market Definition Notice, para. 20.
3.4 The Importance of a Correct Market Definition

It is paramount that the determination of the relevant market is done correctly. If the relevant market is defined too narrowly, by excluding products that in actuality are substitutes, it may lead to over-enforcement of Article 102 TFEU since the undertaking in question may be deemed dominant when in fact it is not. Likewise, if defined too broadly, by including products that are not substitutes, it may lead to under-enforcement. The former situation is called a false positive, or Type 1 error, and the consequence of this is that a conduct that has no actual or likely anti-competitive harm is prohibited. An example of this is the reverse cellophane fallacy, which was described above. Vice versa, under-enforcement means that a conduct that has actual or likely anti-competitive harm escapes due prohibition. This is called a false negative, or Type 2 error. The cellophane fallacy is an example of this. Both errors have obvious detrimental effects. Under-enforcement means that the competition, in some way, is harmed but there is no intervention to stop the behavior. The result of this is both that the dominant undertaking can continue with its harmful conduct, and that no remedy is imposed to compensate for damages. On the other hand, over-enforcement is detrimental since it hampers economic behavior that is desirable.

From the examination in Chapter 2 follows that the possession of a dominant position comes with a special responsibility for the undertaking in question, and that the scope of the special responsibility can vary in relation to the degree of dominance. This fact further highlights the importance of a correct market definition, which is fundamental to assessing dominance. First of all, errors can occur regarding the binary question of whether an undertaking is dominant or not. But different means of defining the market can also lead to varying degrees of dominance, which in turn can influence the abuse assessment.

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62 Jones and Sufrin, EU Competition Law, p. 47.
4 Multi-Sided Markets

4.1 What is a Multi-Sided Market?

The traditional image of a market is a so called single-sided market, consisting of sellers of a good and buyers of that good. In more recent years, however, a different type of market has grown in both prevalence and significance: the multi-sided market. There is not a consensus on the terminology regarding this type of market. Common terms are “platforms”, “two-sided markets” and “platform industries”. In this study, the term “multi-sided market” will be used for the sake of clarity.

Common examples of multi-sided markets are payment cards (where the cardholders constitute one side, and the merchants with a point of sale the other), newspapers (readers and advertisers), and search engines (users of the engine and advertisers). The common denominator between these markets is that the market has customers on multiple sides. For example, a newspaper sells both content (the actual newspaper) to its readers, and advertisement slots to advertisers. It is a platform which facilitates interactions between two groups, in this case the readers and the advertisers. Consequently, a multi-sided market offers different products to two (or more) different groups, and the demand from one group of consumers depends on the demand from the other group.

There seems to be a consensus regarding some basic properties that need to be present in order for a market to be classified as multi-sided. These properties, which will be expanded upon in the following, are:

(a) an intermediary (the platform);
(b) agents brought together by the platform;

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63 Gürkaynak and others, *Multisided markets and the challenge of incorporating multisided considerations into competition law analysis*, note 3.
64 Even though most multi-sided markets are two-sided, there are markets with more than two sides. The term “two-sided market” may therefore be misleading in some cases. See Gürkaynak et. al., *Multisided markets and the challenge of incorporating multisided considerations into competition law analysis*, note 3.
65 Gürkaynak and others, *Multisided markets and the challenge of incorporating multisided considerations into competition law analysis*, note 2.
(c) the pricing structure applied by the platform; and
(d) the presence of indirect network effects.\textsuperscript{67}

4.2 Different Types of Multi-Sided Markets
There are different types of multi-sided markets, and these can be divided into multi-sided transaction markets and multi-sided non-transaction markets. A multi-sided transaction market is characterized by the occurrence of a transaction. An example of this is payment cards, where the issuer of a payment card facilitates an interaction between a customer and a merchant consisting of a transaction of money. As the US Supreme Court stated in \textit{Ohio v. Amex}: “[t]he key feature of transaction platforms is that they cannot make a sale to one side of the platform without simultaneously making a sale to the other.”\textsuperscript{68} Conversely, an example of a multi-sided non-transaction market is a newspaper. What the advertiser buys is a potential interaction with the reader, but rather than consisting of a transaction, the interaction may consist of the reader seeing or reading the advertisement.\textsuperscript{69}

4.3 The Characteristics of Multi-Sided Markets
As stated above, a cornerstone of multi-sided markets is indirect network effects. What is meant by indirect network effects is that the value of a product increases in relation to the amount of users another, complementary, product has. An example of this is software and smartphones: “a person buying a smartphone will care about the number of applications developed for that smartphone brand, while app developers would prefer developing apps for brands that have the most users, in order to increase revenues.”\textsuperscript{70} Accordingly, the value of a smartphone of a certain brand increases in relation to the amount and quality of complementary products (where apps are perhaps the most important) available. This is an example of when network effects are exerted by both sides, which means that both groups’ demand depend on the other group’s demand. In this study, this is called crossing network effects. The existence of crossing indirect network effects is not necessary for a market to be

\textsuperscript{67} Gürkaynak and others, \textit{Multisided markets and the challenge of incorporating multisided considerations into competition law analysis}, p. 6.


\textsuperscript{69} Filistrucchi and others, \textit{Market definition in two-sided markets: theory and practice}, p. 298.

\textsuperscript{70} Gürkaynak and others, \textit{Multisided markets and the challenge of incorporating multisided considerations into competition law analysis}, p. 6.
multi-sided. It is sufficient that only one indirect network effect is present.\textsuperscript{71} Again newspapers provide an example: while the advertisers’ demand for advertisement slots depends on how many readers a newspaper has, the readers’ demand for content does probably not depend on the amount of advertisers.\textsuperscript{72} Yet it is still considered a multi-sided market.\textsuperscript{73}

Another characteristic is the price structure applied by the platform. What is meant by price structure is the “allocation of the total price between the buyer and the seller”,\textsuperscript{74} meaning, the ratio of the prices charged on both sides.\textsuperscript{75} For a platform to be classified as multi-sided, it has to apply a non-neutral price structure. This means that the platform charges more to one side of the market, and less to the other side.\textsuperscript{76} In other words, the prices charged on one side of the market do not need to reflect the costs the platform incurs to serve that side of the market.\textsuperscript{77} Therefore, the side that is charged less, or nothing at all,\textsuperscript{78} is in a way subsidized. The reasoning behind applying a non-neutral price structure and subsidizing one side is described as a way to “get both sides of the market on board”,\textsuperscript{79} as customers of a certain product may not be willing to pay the "true" cost of the product. The price structure can only be non-neutral if it is impossible for the side that is paying more to fully pass through its costs to the subsidized side, since the price structure chosen by the platform would otherwise be irrelevant.\textsuperscript{80} However, the passing through of costs is only possible on a multi-sided market where a transaction between the two sides occurs, i.e. a multi-sided transaction

\textsuperscript{71} Filistrucchi and others, \textit{Market definition in two-sided markets: theory and practice}, p. 296.
\textsuperscript{72} This statement is of course a generalization with possible exceptions.
\textsuperscript{74} Rochet and Tirole, \textit{Two-Sided Markets: A Progress Report}, p. 647.
\textsuperscript{75} Filistrucchi and others, \textit{Market definition in two-sided markets: theory and practice}, p. 299.
\textsuperscript{76} Filistrucchi and others, \textit{Market definition in two-sided markets: theory and practice}, p. 299.
\textsuperscript{77} Fletcher, \textit{Predatory Pricing in Two-Sided Markets: A Brief Comment}, p. 221.
\textsuperscript{78} As will be shown in the following sections, it is common practice among online platforms to only charge one side, and thereby offer their services for free to the other side.
\textsuperscript{79} Fletcher, \textit{Predatory Pricing in Two-Sided Markets: A Brief Comment}, p. 221.
\textsuperscript{80} Filistrucchi and others, \textit{Market definition in two-sided markets: theory and practice}, p. 299.
market. Hence, on a non-transaction market, the platform has perfect control over the different prices charged to both sides of the market.  

4.4 Tipping on Multi-Sided Markets

Multi-sided markets can be prone to “tip” into consisting of one or a few actors. Tipping has been described as resulting in a “winner take all” outcome, where the supposed winner is the actor that remains.  

It is said that competition with regards to such markets is for the market instead of in the market. One of the most used example of a tipped market is that of Microsoft’s operating system Windows. Drawing on that way of describing it, Microsoft would have been competing for the market for operating systems, rather than in that market. The result of the tipping was addressed in the Commission’s decision in Microsoft, where the Commission had found the firm’s market shares to be around 90%: “the quasi-totality of commercial applications written for client PCs are therefore written to Windows as a platform.”

As described in the previous section, a characteristic of multi-sided markets is the presence of network effects. Network effects mean that a product becomes more attractive in relation to how many users the product has. Put in other words, buyers tend to prefer the platform that offers access to the most sellers and vice versa. This can cause a feedback effect, where a growth in size leads to further growth, which might lead to the market being served by one or very few actors. It is therefore possible that dominant undertakings are, and will be as new types of markets emerge, more common on multi-sided markets than on single-sided markets.

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81 Filistrucchi and others, *Market definition in two-sided markets: theory and practice*, p. 299. See also note 18, where the authors describe it as a scale, rather than being binary, where “a two-sided market without a transaction is just an extreme case of a two-sided market: one where no pass-through is possible. At the other extreme, where the pass-through is complete, one finds a one-sided market. In the middle lie many different two-sided markets – those in which a partial pass-through is possible.”

82 Weyl and White, *Let the Best ‘One’ Win*, p. 8.

83 Jones and Sufrin, *EU Competition Law*, p. 49.

84 *Microsoft* Decision, para. 452. 

4.5 The Special Challenges of Market Definition Posed by Multi-Sided Markets

Multi-sided markets pose certain challenges when the relevant product market is to be defined. One challenge is whether one market encompassing both sides should be defined or if the different sides should be defined as separate markets. Another difficulty regards measuring substitutability. Questions regarding the traditional tools’, perhaps mainly the SSNIP test, aptitude quickly arise. These challenges and questions will be presented in this section.

According to some economic literature, there is an important difference between defining the relevant product market for multi-sided transaction markets and multi-sided non-transaction markets. Some authors have proposed that in two-sided transaction markets, only one market, encompassing both sides, should be defined. Vice versa, in multi-sided non-transaction markets, two interrelated markets should be defined. The main reason for this proposal is the possible existence of different competitive constraints on the two sides of a non-transaction market, whilst the competitive constraints are the same on both sides on a transaction market.\(^{86}\) The multi-sidedness of a market can mean that a product might be in the relevant market on one side, but not the other. For example, people may not consider newspapers and TV as substitutes because they read newspapers in the morning and watch TV in the evening. But an advertiser that wants to reach people once a day may very well choose between placing the advertisement in a newspaper or on TV. Therefore, the two products might be in the same market on the advertisers’ side, but not on the readers’ side. Therefore, as newspapers constitute multi-sided non-transaction markets, two interrelated markets should be defined. Only defining one market would mean that the undertaking is active on either both sides of the market or none.\(^ {87}\)

A consequence of this is that substitutability then is measured for the multi-sided market as a whole. This can lead to erroneous results. If only a single market is defined, then the only possible substitutes are other multi-sided markets, since the substitute has to satisfy the

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demands on both sides. Assume that readers consider non-fiction books about history and history magazines to be substitutable. As non-fiction books do satisfy the demand of the readers’ side, but not the advertisers’ side, non-fiction books would not be included in the relevant product market as they do not satisfy both sides’ demands. Thus, a product that in reality is a substitute to one side is excluded. The result of this would be an overly narrow market, which may lead to a false positive. The same reasoning applies for the opposite scenario. One author argues that when the platform is indispensable for meeting the demands of the different sides, the different customer groups are part of the same relevant market and only one market should be defined. This is called the platform indispensability test.

The challenges regarding measuring substitutability seemingly pertain mainly to the quantitative measures and stem from the fact that many of the tools devised for competition law analysis assume a single-sided market. The SSNIP test is no exception. On a single-sided market, only one set of customers has to be considered. On a multi-sided market, there are by definition several sets of customers. Therefore, the assessment needs to be adapted. One author has posed three questions that describe some of the aspects that need to be taken into consideration when assessing a multi-sided market: how will each side react to a given move on the part of the platform? How will the platform react to moves on the different sides? And, how will each side react to each other? In its note to the OECD’s roundtable on two-sided markets, the Commission describes this as a pattern of cross-responses: “[t]wo-sided platforms present certain practical problems. The complexity primarily arises from the presence of two (or more) unique, but interdependent, classes of agents or customers. […] This pattern of cross-responses will generally affect each step of standard antitrust analysis, [for example] product market definition.”

90 Lamadrid de Pablo, The Double Duality of Two-Sided Markets, p. 7.
As the Commission points out, the heart of the matter is the cross-responses that arise due to the different sides’ interdependency. Put in another way, the presence of network effects means that a change in one side’s demand affects the demand on the other side. This fact further highlights the question of whether the different sides should be assessed together or separately, and whether one or more relevant markets need to be defined.\(^4\)

In the following chapter, case law and decisional practice concerning different types of multi-sided markets will be examined.

5 Case Law and Decisional Practice

5.1 A Brief Note on the Choice of Cases

In this Chapter, three cases concerning multi-sided markets will be examined. Case law and decisional practice concerning Article 102 TFEU and multi-sided markets are scarce. The Commission recently adopted its decision in the Google Android case, with the conclusion that Google had abused its dominant position through conduct which concerned several multi-sided markets. But as the decision has not yet been published, it is too early to draw any meaningful conclusions from the case. It will therefore not be examined.

Instead, two Article 101 TFEU cases and one Article 102 TFEU case will be examined. The first Article 101 TFEU case is Visa International MIF. The second is MasterCard MIF. Both cases concerned payment card systems, which are multi-sided transaction markets. As will be shown below, the methods of defining the relevant product market in the two cases differed in interesting ways with regards to the definition of one or two markets. This indicates a change in the approach to multi-sided markets, which will be analyzed in Section 6.1.

Cartes Bancaires is often brought up in discussions about multi-sided markets, and a reader familiar with the subject might wonder why it is not examined here. The reason for this is that the decisions and subsequent judgements in Cartes Bancaires and MasterCard MIF, more or less coinciding in time, did not differ in any relevant way with regards to the product

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95 Commission, press release IP/18/4581.
96 As described in Section 1.3, the process of defining the relevant product market in Article 101 and 102 TFEU cases in the same, barring for some considerations that are unique to the latter. These will be accounted for in the analysis.
98 COMP/34.579, MasterCard, 19 December 2009 (MasterCard Decision), appealed to the General Court; Case T-111/08, MasterCard Inc v Commission, EU:T:2012:260, appealed to the CJ; Case C-382/12 P, MasterCard Inc v Commission, EU:C:2014:2201 (the Commission’s market definition was not raised on appeal).
market definitions. An examination of both cases would therefore not bring anything new to the discussion.

Lastly, the Article 102 TFEU case Google Shopping is examined. The case concerns two multi-sided non-transaction markets. Thus, the examination in this Chapter covers both types of multi-sided markets.

5.2 The Relevant Product Market in Visa International MIF

The case concerned Visa’s multilateral interchange fees (MIF) for payment card transactions. According to the complaint, the interchange fee had the effect of shifting the cost of free services offered to cardholders onto merchants. Since the level of the fee was said to be agreed on between the banks without any pressure from the market, the setting of the MIF allegedly amounted to a price-fixing cartel.\(^{100}\)

When defining the relevant product market, the Commission initially stated that two types of competition relevant to payment cards can be distinguished. The first is between different payment systems, and the second is between financial institutions for card-related activities (issuing of cards to individuals and acquiring of merchants for card payment acceptance). The former type of competition was labeled as the upstream market or inter-system market, and the latter as the downstream market or intra-system market.\(^{101}\) Put in other words, there exists competition both between the system as a whole and other systems, as well as within the system itself. Regarding the downstream market, it was stated that, on the issuing side, issuers compete with each other to issue Visa cards to individuals and to persuade them to use these rather than other cards. It was further stated that a Visa card is usually linked to a bank account, but is normally not a bundled product, which would be inevitably included in a package with a bank account. It was therefore deemed to constitute a distinct product. On the acquiring side, acquirers offer merchants all the services necessary for the merchant to accept Visa cards, such as software, processing, clearing, etc.\(^{102}\)

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\(^{100}\) Visa International MIF Decision, para. 27.

\(^{101}\) Visa International MIF Decision, para. 43.

\(^{102}\) Visa International MIF Decision, para. 45.
Visa claimed that the relevant product market comprised all consumer means of payment. The Commission rejected this position, and argued that:

“...on the inter-system market, the usage of different payment systems [...] is determined by the inter-related decisions of consumers and merchants; for a payment card to be widely used, it must be accepted by large numbers of merchants, and then cardholders must choose to use that card among the different cards they hold and which are accepted by the merchants in question. Demand from both merchants and cardholders must therefore be analysed in order to determine the correct definition of the system market. Consequently, in order that two different payment Instruments be considered as substitutable and therefore included on the same relevant inter-system market, they must be substitutable for both consumers and merchants. If one or the other user of payment Instruments considers two different payment Instruments as not substitutable, then those two Instruments are not substitutable on the inter-system market.”

By stating that the consumers’ and the merchants’ decisions are inter-related, the Commission recognized that network effects are present between these sides. And due to these crossing network effects, the demand of both sides must be analyzed in order to define the relevant product market. Therefore, for a product to be substitutable with a card payment system, both sides must have considered the product substitutable: it was not sufficient that substitutability existed on merely one side. This means that a competitive constraint exerted by a product must have been faced on both sides for an inclusion of that product on the relevant market to be warranted. Thus, substitutability between payment cards (that is, the system as a whole) and cash, cheques and all types of distance payments respectively was examined.

Substitutability between payment cards and all methods of distance payments, such as giro transfers, was deemed limited due to the impossibility to use the latter to pay for items across the counter in shops. Regarding cash, substitutability was also deemed limited mainly because of its unsuitability for expensive purchases, which are more commonly paid for with payment cards. Cash was found to be used for cheaper purchases. Although a certain overlap existed, this was considered to concern only a limited range of transaction sizes. Lastly, regarding cheques, it was stated that substitutability was limited since, inter alia, cheques were

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103 Visa International MiF Decision, para. 46.
104 Visa International MiF Decision, para. 47.
105 Visa International MiF Decision, para. 49.
hardly ever used for over-the-counter purchases and that cheques had significantly different characteristics compared with payment cards.  

For these reasons, the other examined means of payment was not included on the relevant product market. The conclusion was therefore that the relevant market consisted of all types of payment cards.

5.3 The Relevant Product Market in MasterCard MIF

5.3.1 A Single Multi-Sided Market or Two Separate Markets?
The case concerned MasterCard’s multilateral interchange fees (MIF) for payment card transactions. The Commission found that MasterCard’s MIFs for cross-border payment card transactions infringed Article 101 TFEU, because it had negative effects on price competition between its member banks.

When defining the relevant product market, the Commission explicitly pointed out that the case concerned an industry with two-sided demand due to the existence of two groups of consumers: cardholders and merchants. The existence of one single “joint product” supplied by a “joint venture”, as claimed by MasterCard, was rejected. MasterCard’s platform’s multi-sidedness was motivated by the platform not being “a product offered jointly to cardholders and merchants”, but “a vehicle for issuers and acquirers to offer distinct services to two groups of customers”. The presence of crossing network effects was also recognized. Furthermore, the Commission stated that the relevant product is not merely payments, but also separate acquiring and issuing services.

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106 Visa International MIF Decision, para. 50.
107 Visa International MIF Decision, para. 52.
108 Described in the decision’s glossary, p. 7, as being “based on a collective agreement between member banks of a payment association or the decision of a body […] within that association which has been empowered by the member banks to determine the level and structure of interchange fees with binding force for them.”
109 Jones and Sufrin, EU Competition Law, p. 764.
110 MasterCard Decision, para. 258.
111 MasterCard Decision, para. 257.
112 MasterCard Decision, para. 261.
113 MasterCard Decision, para. 258.
114 MasterCard Decision, para. 259.
Citing earlier decisional practice\textsuperscript{115}, the Commission stated that two types of competition can be distinguished in the payment cards business: competition between different payment card networks and competition between individual financial institutions (usually banks) for card-related activities, essentially issuing of cards to individuals and acquiring merchants for card payment acceptance. This led to the distinction between an upstream “system/network market” and downstream “issuing” and “acquiring” markets, similar to the one made in \textit{Visa International MIF}.\textsuperscript{116} It was further stated that demand of member banks for the platform’s services at the upstream network level is dependent on demand at the downstream issuing and acquiring level of the system.\textsuperscript{117} This means that there are several network effects in play at the same time: vertically between the different levels as well as horizontally between different sides of the same level. The vertical interdependence was not deemed an obstacle to define separate product markets at each level.\textsuperscript{118}

MasterCard argued that demand of cardholders and merchants is joint and claimed that the Commission should have carried out a SSNIP test on the sum of charges to cardholders and merchants. The Commission rejected this, and argued that such an application of the SSNIP test would imply that the distinct demand of cardholders for payment cards and the distinct demand of merchants for acquiring services are integrated into one single demand.\textsuperscript{119} Furthermore, this method of applying the SSNIP test was deemed inadequate “for the purpose of assessing the potential effects of a MIF on competition \textit{within} one of these schemes and in particular between acquiring banks as it ignores the different levels of interaction and supply and demand within such a scheme.”\textsuperscript{120} This view was present in the Commission’s overall argumentation as well, that if the platform was defined as a joint product, the different levels of interaction between the platform, the bank intermediaries and the banks’ respective customers would be ignored.\textsuperscript{121}

\begin{flushright}
\textsuperscript{115} Inter alia the \textit{VISA International MIF} Decision.
\textsuperscript{116} \textit{MasterCard} Decision, paras. 278-279.
\textsuperscript{117} \textit{MasterCard} Decision, para. 263.
\textsuperscript{118} \textit{MasterCard} Decision, para. 263.
\textsuperscript{119} \textit{MasterCard} Decision, para. 262-264.
\textsuperscript{120} \textit{MasterCard} Decision, para. 265.
\textsuperscript{121} \textit{MasterCard} Decision, para. 261.
\end{flushright}
MasterCard argued that a definition of separate issuing and acquiring markets would be artificial. It claimed that there are fundamental differences between, for example, a newspaper’s multi-sidedness and the payment cards industry’s multi-sidedness. Newspapers serve two different kinds of demand, advertisement space to advertisers and articles to readers, leading to what MasterCard called “simple complementarity”. On the other hand, in the payment cards industry, a payment made by cardholders correspond to a payment received by merchants, leading to a “joint” or “strict complementarity”. Therefore, MasterCard argued, only one market should have been defined.\(^\text{122}\) If translated to the terminology used above, MasterCard argued that newspapers constitute a multi-sided non-transaction market, whilst MasterCard’s payment system constitutes a multi-sided transaction market. The Commission rejected this argument on several grounds. First, issuing banks provide cardholders with a wide range of services, many of which satisfy a one-sided demand as they are not necessarily connected to a payment transaction and could also be provided to consumers outside the context of a card payment.\(^\text{123}\) Second, although the respective sides’ demands are inter-related, the demand behavior of the two customer groups is significantly different as they, for example, respond in a significantly different way to final prices for the services on the two sides.\(^\text{124}\) Therefore, the conclusion was that two separate markets needed to be defined: the acquiring market and the issuing market.

5.3.2 The Acquiring Market
First, supply and demand substitution were examined on the acquiring market. Supply substitution was deemed limited because of differences in product characteristics between acquiring services and services that suppliers provide to merchants in respect of, for example, cash and cheque. “Cash collectors, for example, can hardly switch to acquiring merchants for card acceptance and vice-versa.”\(^\text{125}\)

\(^{122}\) MasterCard Decision, para. 268-270.
\(^{123}\) MasterCard Decision, para. 273.
\(^{124}\) MasterCard Decision, para. 274.
\(^{125}\) MasterCard Decision, para. 285.
Regarding demand side substitution, the Commission rejected the application of a SSNIP test both on the sum of prices charged on both sides, as well as on the single price charged by acquirers to merchants. This was due to the significant risk of a cellophane fallacy, as the price may not have been at the market level. “Thus, a survey with merchants in these markets asking whether they would cancel a card if the fees were raised by a small but sustainable [amount] can be expected to lead to exaggerated results. Therefore, in assessing the MIF, the Commission attributes higher value to evidence derived from product characteristics and past switching behaviour than the results of a SSNIP test.”\footnote{126} The evidence from product characteristics suggested that there are significant differences between cards on the one hand, and cheques and giro transfers on the other.\footnote{127} The collected evidence led the Commission to the conclusion that card acquiring services are neither sufficiently substitutable with cash and cheque related services, nor with bank giro nor direct debit services. The relevant product market was therefore deemed as the market for acquiring payment card transactions.

\subsection*{5.3.3 The Issuing Market}
Supply side substitution between the issuing of cash and issuing of cards was deemed limited due to obvious reasons: the issuing of cash is a legal privilege of a state’s central bank.\footnote{128} Demand side substitution was deemed limited too, mainly due to the characteristics of payment cards differing strongly from those of other payment means. For example, contrary to payment card usage, consumers perceive cash usage as free of charge. Furthermore, payment cards are more suitable for making large payments. As for cheques, substitutability was limited, inter alia, because payment cards cannot be used between private individuals.\footnote{129} Lastly, substitutability between giro transfers and payment cards was deemed limited as well, as the two means of payment are designed for different situations.\footnote{130}

Thus, for the purpose of the case, the relevant product market was defined as the market for acquiring cards.\footnote{131}
5.4 The Relevant Product Market in Google Shopping

5.4.1 Introduction
In June 2017 the Commission adopted its decision on Google Shopping. In Microsoft/Yahoo! Search Business, the Commission concluded that a (general) search service is a multi-sided platform.\textsuperscript{132} The business model of Google’s general search service (Google Search) is to offer the ability to search the internet to users, and advertisement slots targeted at these users to advertisers. It is safe to assume that the attractiveness of these advertisement slots depend on the amount of users the search service has, meaning at least one indirect network effect is present. Furthermore, the search service is offered for free to the users, while advertisers pay for the advertisement slots. This means that Google Search applies a non-neutral price structure. Following from the requirements for a market to be classified as multi-sided given above, Google Search should indeed be classified as such. Furthermore, the interaction between the advertiser and the user does not consist of a transaction, which means that it constitutes a multi-sided non-transaction market. As is apparent from the Commission’s examination of comparison shopping services, these fall under the same category.\textsuperscript{133}

Because of the character of the alleged abusive conduct, the Commission set out to define two relevant product markets. Google’s conduct was deemed to constitute a leveraging abuse, which is when an undertaking uses its dominant position in one market to distort competition on another, separate, market. Therefore, both of these markets needed to be defined. First, the competitive constraints faced by Google Search were examined.

5.4.2 The Relevant Product Market for General Search Services
The Commission started by investigating the demand side substitutability between general search services, such as Google Search, and other online services. Deemed to fall under “other online services” were content sites, specialized search services and social networking sites. The demand side substitutability between general search services and these services was then assessed.

\textsuperscript{132} COMP/M.5727 – Microsoft/Yahoo! Search Business, para. 100.
\textsuperscript{133} See section 5.3.3.
The purpose of a general search service was described as guiding users to other sites, while the primary purpose of content sites is to offer directly the information, products or services users are looking for.\textsuperscript{134} Regarding special search services, the Commission stated that the nature of these services is the focus on providing specific information or purchasing options in their respective fields of specialization. This is in contrast to general search services, which search the entire internet and return different, more wide-ranging results. By contrast, they are not limited to a specific content category.\textsuperscript{135} Another difference pointed out is that of the two services’ technical features, for example how they rely on different sources of data.\textsuperscript{136} Furthermore, it was stated that the two types of search services act as complements rather than substitutes. This was motivated, again, by the difference in span of the results and the special search services’ extra functionalities.\textsuperscript{137} Lastly, social networking sites and general search services were deemed to perform different functions. Contrary to general search services, social networks “lead users to content they might be interested in by offering a means for users to connect and interact with people who, for instance, share interests or activities”.\textsuperscript{138} All of the above lead the Commission to the conclusion that the demand side substitutability between general search services and other online services was limited.

The Commission briefly stated that significant investments in terms of time and resources would be needed for providers of other online services to offer general search services. Therefore, supply side substitutability was also deemed limited.\textsuperscript{139}

Lastly, the Commission concluded that general search services offered on static devices and mobile devices belong to the same relevant product market.\textsuperscript{140} This was motivated by the underlying technology being the same, the services on mobile and static devices being offered by the same undertakings, and Google not contesting this conclusion.\textsuperscript{141}

\textsuperscript{134} Google Shopping Decision, para. 164.
\textsuperscript{135} Google Shopping Decision, para. 167.
\textsuperscript{136} Google Shopping Decision, para. 168.
\textsuperscript{137} Google Shopping Decision, para. 174-176.
\textsuperscript{138} Google Shopping Decision, para. 179.
\textsuperscript{139} Google Shopping Decision, para. 185.
\textsuperscript{140} Google Shopping Decision, para. 186.
\textsuperscript{141} Google Shopping Decision, paras. 187-189.
Therefore, one of the two relevant product markets for the purposes of the case was defined as the market for general search services.

5.4.3 The Relevant Product Market for Comparison Shopping Services
Comparison shopping services was defined as specialized search services that (1) allow users to search for products and compare their prices and characteristics across the offers of several different online retailers and merchant platforms, and (2) provide links that lead to the websites of such online retailers or merchant platforms. In the decision, the substitutability between comparison shopping services and other specialized search services, online search advertising platforms, online retailers, merchant platforms and offline comparison shopping tools was examined.

First, the Commission measured substitutability between comparison shopping services and other specialized search services. From the demand side perspective, it was stated that each type of service focuses on providing specific information from different sources in its respective field of specialization. Therefore, comparison shopping services provide the user that is looking for information on a product with a selection of existing offers for that product. From the perspective of that user, such a service is not substitutable with that offered by search services specialized in certain matters, for example flights. From the supply side the Commission concluded that it would entail significant investments for other specialized search services to start providing comparison shopping services. Therefore, the conclusion was that there is limited substitutability between comparison shopping services and other specialized search services.

Second, the Commission measured substitutability between comparison shopping services and online search advertising platforms. On the demand side, the Commission considered the users’ as well as the advertisers’ (such as online retailers) perspective. The users were

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142 Google Shopping Decision, para. 191.
143 Google Shopping Decision, para. 194.
144 Google Shopping Decision, para. 195.
145 Google Shopping Decision, para. 197: “From the demand side perspective, while online retailers generally promote their offers through both comparison shopping services and online search advertising platforms, the latter do not provide services that are interchangeable from the perspectives of users and online retailers (and other advertisers).”
deemed to perceive comparison shopping services as a service, in contrast to online search advertising which “is not a service users seek, but rather a compensation for the free service offered by general search engines”. From the advertisers’ perspective, comparison shopping services and online search advertising platforms were deemed complementary and not substitutable. This was motivated by, inter alia, only specific types of advertisers being able to bid to be listed in comparison shopping services which is not the case for online search advertising results, advertisers bidding on products and not on keywords, in contrast to online search advertising results, and the differences in functionalities and infrastructures required for the provision of the two services.

Third, the Commission examined substitutability between comparison shopping services and online retailers. From the demand side perspective, the two were deemed to serve different purposes. This was motivated by the two being business partners rather than competitors, since comparison shopping services refer users to the online retailers where they can buy the sought product, and the fact that online retailers do not seek to refer users to other websites than the retailer’s. Lack of supply side substitutability was again motivated by the different functionalities and infrastructures required. However, it can be derived from the Commission’s writing that Google, in its response to the Commissions Statement of Objections, claimed that at least some substitutability is present. Google claimed, inter alia, that many users bypass comparison shopping services by navigating directly to the websites of online retailers to find products. The Commission countered this with the argument that the behavior pointed out by Google indicates that the service offered by online retailers is complementary to comparison shopping services, and not substitutable. It was argued that users bypass the comparison shopping service when they are not particularly interested in comparing different offers, which they use comparison shopping services for. Thus it was concluded that substitutability between the two is limited.

146 Google Shopping Decision, para. 198.
147 Google Shopping Decision, paras. 199-206.
149 Google Shopping Decision, para. 211.
150 Google Shopping Decision, para. 212.
Fourth, the Commission examined substitutability between comparison shopping services and merchant platforms. This examination was the most extensive, partly due to Google’s several claims of substitutability between the two. In order to avoid long-windedness and unnecessary repetition, not all arguments will be reproduced here.\textsuperscript{152} The core of the Commission’s reasoning regarding demand side substitutability was that merchant platforms and comparison shopping services serve a different purpose for users and for online retailers.\textsuperscript{153} This statement implies a consideration of the services’ multi-sidedness, with users on the one side and online retailers on the other. The main differences pointed out, from the users’ perspective, was that comparison shopping services do not offer the possibility to purchase a product on their websites, do not offer after-sale support and typically list offers only from professional sellers for new products.\textsuperscript{154} This is in contrast to merchant platforms, which act as a place where retailers and customers can conclude sales, are perceived by users as a “final destination”, offer after-sale support and list offers for second-hand products from non-professional sellers.\textsuperscript{155} From the perspective of online retailers, being listed on comparison shopping services was said to allow the retailers both to increase brand awareness and to attract user traffic to their own websites, while retaining control over their retail activities. Therefore, these services tend to attract larger retailers that do not want to cede these activities to merchant platforms, which they are said to view as competitors.\textsuperscript{156} In contrast, merchant platforms are described as particularly suitable for smaller retailers that want to concentrate on sourcing and logistics only.\textsuperscript{157} Therefore, substitutability was deemed limited on both demand sides.

Google’s claims of substitutability consisted of four arguments:

\begin{itemize}
  \item a) The two services’ product search and comparison functions are substitutable;
  \item b) The fact that merchant platforms are customers of comparison shopping services does not necessarily mean that they are not competitors;
\end{itemize}

\textsuperscript{152} The full examination can be found in \textit{Google Shopping Decision,} paras. 217-246.
\textsuperscript{153} \textit{Google Shopping Decision,} para. 217.
\textsuperscript{154} \textit{Google Shopping Decision,} para. 218.
\textsuperscript{155} \textit{Google Shopping Decision,} para. 219.
\textsuperscript{156} \textit{Google Shopping Decision,} para. 221.
\textsuperscript{157} \textit{Google Shopping Decision,} para. 222.
c) The possibility for users to purchase products directly on their websites constitutes an added value that makes merchant platforms a greater competitive force for comparison shopping services; and

d) The Commission should have carried out a SSNIP test.158

The Commission sought to rebut the first argument with several counter arguments, inter alia the fact that substitutability does not exist, from the users’ perspective, because only a limited number of the largest retailers present on comparison shopping services have chosen also to appear on merchant platforms.159 It seems like the Commission argued that the fact that the services displayed results from different retailers meant that they did not compete with each other, although the retailers may have offered similar products. This argument presupposes that (some) users are looking for a product from a specific retailer and therefore do not choose between the different services. It was also stated, again, that the range of results differed between the two, partly because offers from merchant platforms generally were included in the results from comparison shopping services.160

Regarding the second argument, the Commission stressed that the two services are not part of the same relevant product market since requests for information sent to merchant platforms and comparison shopping services showed that a majority of the service providers do not consider themselves as competitors, but as business partners.161 The Commission also cited earlier merger decisions of the Commission, inter alia Axa/Permire/Opodo/Go Voyages/eDreams.162 In this case, the Commission found that online travel agents (OTAs), which can be compared to merchant platforms, and airline websites, which can be compared to online retailers, compete in a possible market for online distribution of flight tickets they both sell to end users. This was found to be consistent with the finding that merchant platforms compete with online retailers, not with comparison shopping services.163

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158 Google Shopping Decision, para. 227.
159 Google Shopping Decision, para. 228.
160 Google Shopping Decision, para. 228.
161 Google Shopping Decision, para. 235.
162 Case COMP/M.6163, Axa/Permira/Opodo/Go Voyages/eDreams.
163 Google Shopping Decision, para. 237.
However, in *Axa/Permira/Opodo/Go Voyages/eDreams*, the Commission found that only 39% of the consumers who use OTAs to compare travel products stay on that OTA website to make their booking. 20% of consumers go to other websites, for example airline websites. Thus it seems like a portion of consumers do not use OTAs as their final destination, and yet the services were found to compete with each other. An interesting comparison can therefore be made to *Google Shopping*, where this fact was regarded as evidence for merchant platforms and comparison shopping services not competing with each other. The reasoning in *Axa/Permira/Opodo/Go Voyages/eDreams* can be interpreted in two ways. Either, it did not matter that not all customers used OTAs as their final destination. Or, the group of customers that used it as such was sufficiently large. The question is therefore: if a group of customers large enough used comparison shopping services as the final destination, had the conclusion been another? This question is answered in the Commission’s reasoning regarding Google’s third argument.

Concerning the third argument, the Commission argued, inter alia, that the introduction of a direct purchase functionality can change the business model and nature of the service provided by comparison shopping services to such an extent that the service may no longer be considered to constitute a comparison shopping service, “especially if the direct purchase functionality [is] introduced systematically for all (or the majority of) merchants and offers.” Put together with the argument concerning final destinations, the reasoning is as follows: (1) users do not use comparison shopping services as a final destination because they do not offer the possibility to conclude sales directly, (2) merchant platforms offer the possibility to conclude sales directly and are therefore final destinations, (3) if comparison shopping services were to offer the possibility to conclude sales directly, to a certain extent, they would no longer be comparison shopping services. Thus, it seems like it is irrelevant whether users use comparison shopping services as their final destination, since comparison shopping services cannot, by the Commission’s definition, be a final destination at the same time (if the direct purchase functionality is available for at least the majority of merchants and offers).

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164 *Case COMP/M.6163, Axa/Permira/Opodo/Go Voyages/eDreams*, para. 27.
165 *Google Shopping Decision*, para. 240.
In the following recital, the Commission stated that only a limited number of comparison shopping services have introduced a direct purchase functionality, although for a limited number of merchants and offers. As an example of this, the next largest comparison shopping service in Germany, Idealo, (Google Shopping being the largest) had managed to convince less than 20% of its online retailers to introduce a direct purchase functionality.\textsuperscript{166}

This statement confirms that the assessment of whether a service is a comparison shopping service is not binary, but rather a scale where it depends on how many merchants and offers the direct purchase functionality is available for, where less than 20% is little enough.

As for the fourth argument, the Commission stated quite briefly that the SSNIP test is not the only method available for the Commission, that it is required to make an overall assessment and that there exists no hierarchy between different methods. Moreover, the SSNIP test would not have been appropriate in the present case because Google provides its search services for free to users\textsuperscript{167}. For all the reasons above, demand side substitutability between comparison shopping services and merchant platforms was deemed limited.

Lastly, the Commission concluded that supply side substitutability between the two services was limited as well. This was motivated by the different functionalities required.\textsuperscript{168}

Demand substitutability between comparison shopping services and offline comparison shopping tools, such as print catalogues and shopping TV channels, was considered limited due to the vast difference in the amount of information provided by the two services and the different actions needed if the customer wanted to proceed and make a purchase.\textsuperscript{169} Supply substitution was deemed limited too, due to the significant and time consuming investments needed for such tools to provide online comparison shopping services.

\textsuperscript{166} \textit{Google Shopping} Decision, para. 241.

\textsuperscript{167} \textit{Google Shopping} Decision, paras. 243-245. The Commission made reference to \textit{Topps Europe Ltd}, see section 3.2.4.

\textsuperscript{168} \textit{Google Shopping} Decision, paras. 224-26.

\textsuperscript{169} \textit{Google Shopping} Decision, paras. 247-248.
Therefore, the second of the two relevant product markets for the purposes of the case was defined as the market for comparison shopping services. A summarizing chart of this examination can be found in Appendix 1.\textsuperscript{170}

\textsuperscript{170} See p. 56.
6 Analysis

6.1 A road-map of Chapter 6
In this Chapter, the conclusions from Chapter 5 will be discussed in order to answer the study’s two research questions. The first research question pertains to the process of defining the relevant product market when examining multi-sided markets. This process is divided into two steps, as shown by the cases described in Sections 5.2-5.4. The first step consists of deciding whether one or several markets should be defined. When this is decided, the examination moves on to the second step, which consists of measuring substitutability on the market(s). The first step is analyzed in Section 6.2 and the second step in Section 6.3. Both steps have ramifications for the question of dominance in the application of Article 102 TFEU. The purpose of the second research question is to examine these consequences, and this is done throughout the analysis in both Sections.

Section 6.2 concludes that the deciding factor for how many markets should be defined seems to be differences in competitive constraints between the different sides. One single market should be defined when the competitive constraints are the same. Conversely, two (or more) markets should be defined when the competitive constraints differ between the different sides to a certain degree. This follows from MasterCard and Google Shopping. In MasterCard, crossing network effects were not assigned the same importance as in Visa International MIF, which points to a shift in the method used to assess multi-sided markets. This is unfortunate as crossing network effects can and should serve as an indicator of the competitive constraints being similar and the intermediary’s indispensability.

Section 6.3 discusses the difficulties associated with applying quantitative measures on multi-sided markets. It explains why the use of quantitative measures might lead to exaggerated results with regards to substitutability. One method of mitigating the potentially exaggerated results of applying the SSNIP test is presented. Such methods, tailored for multi-sided markets, are yet to be applied in practice. Instead, the tool of choice is qualitative measures.
6.2 One or Two Markets?

The three cases described above at Sections 5.2-5.4 show an apparent disparity regarding defining one single market encompassing both sides or defining separate, inter-related markets. In *Visa International MIF*, which concerned a multi-sided transaction market, a single market including both sides was defined. In *MasterCard MIF*, also concerning a multi-sided transaction market, two separate but inter-related markets were defined. In *Google Shopping*, which concerned two separate multi-sided non-transaction markets, both solutions were applied. What is to be made of this incoherence?

According to the definitions given above of a multi-sided transaction market, the payment card market should be defined as such, as the payment card system facilitates a transaction between cardholders and merchants. In *Visa International MIF*, the Commission apparently recognized crossing network effects by stating that “the usage of different payment systems […] is determined by the inter-related decisions of consumers and merchants”.\(^{(171)}\) It is safe to assume that a payment instrument’s attractiveness for consumers is dependent on the amount of merchants accepting that instrument, and conversely that merchants’ willingness to accept a certain instrument depends on the amount of consumers using it. The Commission’s finding of network effects being exerted by both sides is therefore not controversial. Because of these crossing network effects, the Commission defined a single market encompassing the two sides: the issuing side and the acquiring side. The consequence of this was that the presence of possible substitutes on only one side was not relevant. Instead, the conclusion was that for cheques, for example, to be included in the relevant product market, it had to exert a competitive constraint on the system as a whole. In other words, the product must be a substitutes on both sides. The interim conclusion therefore seems to be that on a multi-sided transaction market with crossing network effects, only one single market encompassing both sides should be defined. However, this conclusion becomes less clear when the market definition in *MasterCard MIF* is analyzed.

As described above, the presence of crossing network effects was recognized in *MasterCard MIF*. Following the reasoning in *Visa International MIF*, only one market should therefore have been defined. But this was not the case. The Commission defined two separate markets

\(^{(171)}\) *Visa International MIF* Decision, para. 46.
as “[t]wo-sided demand does not imply the existence of one single ‘joint product’ supplied by a ‘joint venture’.”\textsuperscript{172} Besides from the risk of ignoring the relationship between the upstream market and the downstream market, the main reason for defining two separate markets seems to have been that different services were offered on the two sides of the downstream market. Accordingly, the downstream market did not solely consist of MasterCard facilitating transactions between the two sides. One-sided services were offered in addition to the possibility to make transactions. This meant that the two sides were offered a bundle of services, two-sided as well as one-sided, one of which was the possibility to make transactions. This can be interpreted as the Commission recognizing the additional services, which differed between the two sides, as leading to different competitive constraints on the different sides. Therefore, it was deemed appropriate to not define a single market encompassing both sides. This is undeniably an aspect that did not influence the decision in \textit{Visa International MIF}. When analyzing the issuing side of the market in \textit{Visa International MIF}, the Commission stated that the Visa card normally is not a bundled product, but that it is usually linked to a bank account.\textsuperscript{173} This seems to mean that a bank account does not have to come with a Visa card, but a Visa card usually comes with a bank account. A bank account is not a two-sided service.

The reason for the different methods applied in \textit{Visa International MIF} and later in \textit{MasterCard MIF} is therefore not clear. Accordingly, MasterCard argued that the Commission’s method of defining two separate markets was inconsistent with decisional practice. The Commission rejected this, and made reference to earlier decisional practice regarding newspapers, in which two separate markets were defined.\textsuperscript{174} As noted above, newspapers are regarded in economic literature as multi-sided non-transaction markets. The differences between transaction markets and non-transaction markets was not explicitly recognized and therefore, in itself, seems to be of lesser importance. Though the question arises whether the additional, different, services offered to the two sides were so significant as to “tilt” MasterCard’s downstream market from an absolute transaction market, rendering the competitive constraints on the two sides sufficiently distinctive to define separate markets? If fewer additional services had been offered, had only a single market been defined? Probably so.

\textsuperscript{172} \textit{MasterCard Decision}, para. 257.
\textsuperscript{173} \textit{Visa International MIF} Decision, para 45.
\textsuperscript{174} \textit{MasterCard Decision}, para. 266-267.
Thus, the relevant product market was assessed in a way that is by some proposed for multi-sided non-transaction markets. This implies that the line between the two in practice is not as strict as is suggested by scholars. Rather, as differences between the services offered on the different sides were one of the main reasons for two separate markets being defined, disparities between competitive constraints faced on the two sides seem to have had an important part in the assessment. This produces the image of yet another scale, with absolute transaction markets on one side and absolute non-transaction markets on the other. In the middle lies several markets where the products in varying degrees consist of both a transaction and other products. Somewhere on that scale there exists a tipping point, where the transaction is too small a part of the product to warrant the definition of a single market. The different methods can therefore be interpreted as a change in the approach to multi-sided markets, where crossing network effects do not play the same role and greater attention is given to additional services.

Lastly, the Commission’s argument in MasterCard MIF that the difference between the two sides’ price sensitivities warranted the definition of two separate markets must be scrutinized. The Commission was incorrect in letting this fact affect the question of how many markets should be defined. The non-neutral price structure applied by multi-sided market is a necessary property of these markets, and the purpose of these price structures has been explained above. These price structures are applied because of differences in price sensitivities. Without these differences, the intermediary would not be necessary. Therefore, as these differences are ubiquitous on multi-sided markets, two markets should always be defined if this reasoning is to be applied. This is an incorrect conclusion. Instead, the differences in price sensitivities should be accounted for when measuring substitutability, which will be discussed in section 6.2.

In Google Shopping, the terms multi- or two-sided markets are sparsely mentioned. There are only a few instances where the services’ multi-sidedness is explicitly taken into consideration. The first step of the decision’s product market definition consists of the Commission stating that the provision of general search services constitutes an economic activity.175 This is motivated with three arguments, one of which being the price structure applied by Google.

175 Google Shopping Decision, paras. 157-160.
where the users are offered the service free of charge. This is described as an advantageous commercial strategy due to the network effects, and the conclusion is that “[g]eneral search services and online search advertising constitute the two sides of a general search engine platform.” However, this is considered in this context only to argue for the provision of general search services constituting an economic activity, and not because it affects the scope of the relevant product market.

Nevertheless, if the different sides of Google Search were to be defined as separate markets, these would be defined as the market for general search services and the market for online search advertising platforms. The example given above of substitutability between TV and newspapers ought to be applicable on general search services and, for instance, social networks too. From the users’ perspective, the two are not substitutable by the reasons pointed out in the decision. But from the advertisers’ perspective, there may be demand substitution between, for instance, Facebook and Google Search. As previously mentioned, a solution that has been proposed in economic literature is that, when the assessment concerns a multi-sided non-transaction market, two interrelated but separate markets should be defined.

In Google Shopping, the Commission explicitly recognized that general search engine platforms are multi-sided and that they connect distinct but interdependent demands. The abusive behavior was concluded to have been conducted on the market for general search services. Because of this, the advertisement side of Google Search was put aside as the Commission seems to have deemed it, although inexplicitly, irrelevant for the purposes of the case. Therefore, what at first glance looks like Google Search’s multi-sidedness being overlooked, is the result of both sides already being separated as distinct markets. This is clear when examining the Commission’s description of the parameters that general search services compete on, such as the relevance of results and the speed with which results are provided. These are obviously parameters that are relevant on the users’ side, whereas different parameters, such as ability to display targeted advertisements, would be relevant on the

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176 Google Shopping Decision, para. 159.
177 There may be additional sides, but that is irrelevant as the important property of Google Search is that there is more than one side.
178 See section 4.5.
advertisers’ side. However, it was not discussed why the side constituted by general search services was defined as a distinct market, separate from the other side. Perhaps it can be assumed that the same reasoning as in *MasterCard* was applied, and that it therefore was implied that general search engine platforms face different competitive constraints on the different sides.

The conclusion seems to be the following. In Article 102 TFEU cases concerning multi-sided non-transaction markets, the side on which the abuse has been conducted is defined as the relevant product market if the competitive constraints are the same on both sides. This approach is reasonable, since if only one single market was defined, encompassing both sides, possible substitutes could only have been other multi-sided markets which satisfy both sides’ demands, even though the competitive constraints were different on the two sides. In other words, the platform was not indispensable for the satisfaction of the two sides’ demands. Here it should be pointed out that the multi-sidedness of Google Search is indeed a trait of the product that makes it more attractive for the users too, but not because of network effects. Instead, the multi-sidedness allows Google to apply its non-neutral price structure. This means that the users benefit from the participation of advertisers, but it is not the participation in itself that makes Google Search attractive for the users. It is the consequence of the advertisers’ participation that makes it attractive. The consequence is that the users can be subsidized. This means that Google Search can be assumed to lack crossing network effects. The definition of two separate markets for Google Search is therefore also in line with *Visa International MIF*.

As for comparison shopping services, the multi-sidedness of such a platform was not explicitly recognized. Moreover, contrary to the method applied in *MasterCard* and regarding general search engine platforms, any discussion concerning defining two separate markets or a single market was not held before assessing substitutability. This is problematic in and of itself, as it obscures the method and reasoning applied. Then, the competitive constraints faced on both sides were considered for several of the potential substitutes. The Commission found that none of the examined products constituted substitutes on either side. Therefore, it was not discussed what the consequence would have been if a product was found to be a

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substitute on only one of the sides. It follows from Visa International MIF that when only one market is defined, a product has to exert a competitive pressure on the system as a whole for it to be included on the relevant market. It is not sufficient that only one of the sides considers a product to be a substitute. This is not only reasonable, but also necessary. A product cannot, in general, be regarded as a substitute on only one side and still be included on the same relevant product market. If it was to be included, the relevant product market would include a product that a possibly large proportion of the participants on that market does not regard as a substitute. It may therefore result in a false negative, due to the inclusion of false substitutes. Though there may exist exceptions to this. It could be possible that the side that does not regard a product as a substitute constitutes such a small part of the relevant market that when, for example, a SSNIP test is applied, their actions have such a small impact that the increase in price is unprofitable. The definition of a single market for comparison shopping services should therefore entail that merchant platforms, for example, would have had to constitute a substitute for both the users and online retailers for it to be included on the relevant product market. But as no substitute was found on either side, this issue was not addressed in the decision.

As differences in competitive constraints were not found, the conclusion stated above still holds, and can be adjusted to be relevant for the non-abuse side as well; concerning multi-sided non-transaction markets, one market should be defined if differences in competitive constraints are not found between the different sides. This would mean that the proposed solution for transaction/non-transaction markets does not necessarily render the same results as the platform indispensability test. The Commission concluded that the competitive constraints were the same on both sides of comparison shopping services. But, there are interesting differences between Google Search and Google Shopping. It can be assumed that for comparison shopping services, there are crossing network effects. For users, the service might be more attractive the more retailers are listed. For retailers, it surely is more attractive to be listed the more users the service has. Therefore, in contrast to Google Shopping, it is not only the price structure, made possible by the service’s multi-sidedness, that makes it attractive for users. It is the participation of the other side in itself. This would mean that the platform is indispensable, even though it is a non-transaction market. The consequence of this is that possible substitutes have to be multi-sided as well.
Nonetheless, the conclusion presented above still stands: when there are different competitive constraints faced on the different sides of a multi-sided market, two markets are to be defined. When the competitive constraints are the same on the different sides, only one market encompassing both sides should be defined. In neither situation does it matter whether the market in question is a transaction or a non-transaction market. Therefore, the method seems more aligned with the platform indispensability test rather than adhering to the division between transaction and non-transaction markets.

The question of separation of the sides into distinct markets is highly important in Article 102 TFEU cases. Take the case of a multi-sided market where the platform is not indispensable, meaning that the competitive constraints differ between the two sides. Assume that the undertaking is dominant on neither side of the market. But, if only one market is defined, and possible substitutes have to be multi-sided, the undertaking may erroneously be found to be dominant due to an overly narrow market definition. Another plausible scenario is that an undertaking may be dominant on only one side of the market, and that the conduct in question is exercised on the non-dominant side. If only one market is defined, that encompasses both the dominant and the non-dominant side, the risk of a false positive is present in this scenario as well. If the conduct takes place on the dominant side, the finding that the undertaking is dominant may not be erroneous in itself. However, the definition of a single market may lead to a much higher degree of dominance. Yet again, this would be because of an overly narrow market definition. But in this scenario, the dominance would be erroneously inflated, rather than incorrectly found. As seen in Tetra Pak II and Compagnie Maritime Belge, exceptionally high degrees of dominance can have a decisive function in the abuse assessment. A possible consequence is therefore that a conduct found to be abusive would have been assessed differently if the degree of dominance would have been correctly assessed. This too constitutes over-enforcement, which means that the risk of false positives is present in this case as well. These scenarios show that the definition of a single market entails the risk of false positives.

However, the division of the multi-sided market into two (or more) markets can be associated with errors too. Assume that the competitive constraints are the same on both sides. This would mean that the intermediary is indispensable and that possible substitutes have to be multi-sided. In this situation, it is incorrect to say that the undertaking is dominant
on one side but not the other, as the multi-sidedness of the market is a necessary trait of the product for both sides. If two separate markets are defined in such a situation, false substitutes that are not multi-sided may be included on the relevant product market. The inclusion of false substitutes renders an overly broad market definition, which entails the risk of false negatives. The dominance may be diluted into non-dominance, and the conduct would therefore not be found abusive.

What is the correct method, then? The strict line proposed between transaction and non-transaction markets by some scholars does not seem to be upheld by neither the Commission nor the Courts. Rather, the decisive factor is differences in competitive constraints faced on the different sides. This is more in line with the platform indispensability test. This conclusion has support from both *MasterCard* and the definition of two markets in *Google Shopping* concerning search services (and comparison shopping services, though not as clearly as this was not addressed).

Here, it is appropriate to reiterate what the purpose of defining the relevant product market is. The purpose is to assess the competitive constraints faced by an undertaking. If these constraints are the same on both sides, and the market’s multi-sidedness is a necessary trait for both sides, then it is artificial to define the different sides as distinct markets. Likewise, it seems as artificial to define a single market encompassing both sides when the competitive constraints faced on the different sides are not the same and the market’s multi-sidedness is not a necessary trait for both sides. Therefore, it is a more nuanced and satisfactory method to assess whether the difference in competitive constraints are sufficiently large to warrant a definition of two separate markets, which would mean that the intermediary is sufficiently dispensable. Crossing network effects should be interpreted as an indicator of the intermediary’s indispensability, since this shows that the product’s multi-sidedness is a necessary trait for both sides. The question then arises whether the significance of the differences in competitive constraints between the two sides was exaggerated in *MasterCard*. The question that should have been posed is whether the additional services were so significant as to render the differences in competitive constraints sufficiently large to warrant the definition of two separate markets. An affirmative answer to that question means that the interaction with the other side was a sufficiently unnecessary trait of the product for one of the sides. This conclusion leads to the possible inclusion of one-sided substitutes on the
relevant product market. When *MasterCard* is considered from this perspective, it is apparent that greater importance should have been assigned to the crossing network effects as they indicated that MasterCard’s multi-sidedness in fact was a necessary trait for both sides. The platform was probably not indispensable. Rather, the additional services offered on both sides should have been deemed just that – additional. They were offered as an added value to the main product, which was the ability to interact with the other side of the platform. Therefore, only one market encompassing both sides should have been defined.

### 6.3 Measuring Substitutability

Common for the three cases described is the sole use of qualitative measures. The products’ characteristics, intended use, purpose, functionalities, users’ perceptions of the product, etc. were examined in depth. In *Google Shopping*, the Commission pointed out that there is no hierarchy between the types of evidence and methods that it can rely upon. As seen both in the Market Definition Notice and case law, the Commission does not, nor is bound to, follow a rigid hierarchy of different sources of evidence. However, the overall assessment that the Commission is required to make may very well, or preferably, include both qualitative and quantitative methods. As noted above, it is recognized in the Market Definition Notice that that customers may not value different characteristics enough for them to substitute the products with another.\(^{180}\) Due to this, it is of course preferable to combine qualitative and quantitative measures in order to obtain as much evidence as possible.

The SSNIP test, a quantitative measure, was not applied in any of the cases. Both in *MasterCard MIF* and *Google Shopping* the undertakings argued for the application of a SSNIP test, but the test was described as unsuitable and therefore rejected. In both cases the cellophane fallacy was referred to as a reason not to apply the test. As seen in the Market Definition Notice, the Commission recognizes that the possibility of the cellophane fallacy calls for caution when applying the SSNIP test in Article 102 TFEU cases. However, in *Google Shopping*, it was not Google’s possible dominant position that was deemed to constitute a risk for the fallacy to occur. Rather, it was the fact that one side was not charged for the service that was stated to constitute the risk. Thus the reason for the SSNIP test not being applied was the risk of a false conclusion due to the service being provided for free to its users, as a

\(^{180}\) Market Definition Notice, para. 36.
consequence of the non-neutral price structure applied. It was not because of the risk of increasing a price already at the monopoly level. Yet, the false conclusion would still be the cellophane fallacy and not the reverse cellophane fallacy, even though the service is offered for free to its users. The service being offered for free to its users is not because of regulatory fiat or predatory pricing, which would, as noted above, make it uneconomically low. It is because of the non-neutral price structure applied, where the users are subsidized by the advertisers, making it economically low. If users were charged for online searches, searches made would most likely drop dramatically, which would decrease the platform’s attractiveness for advertisers, rendering the increase in price unprofitable. Due to the difficulties associated with applying the SSNIP test on these types of markets, the Commission omitted to apply it.

As noted above, the SSNIP test builds on the assumption that substitutable products compete on price. This is likely an additional reason for the Commission not applying the test. In the decision, the Commission stated that “even though general search services do not compete on price, there are other parameters of competition between general search services.” Examples of the other parameters of competition were, inter alia, the relevance of results and the speed with which results are provided. This highlights a problem with applying the SSNIP test on multi-sided markets where one side is not charged; 0 raised by 5 – 10% is still 0. And if a certain amount was to be applied instead, how should that amount be determined? Such technical questions, although interesting, miss the underlying problem. The Commission rightly pointed out that services such as general search services do not compete on price, but on other properties. An application of a SSNIP test in its traditional form would therefore be inappropriate and surely lead to the inclusion of false substitutes, resulting in an overly broad market definition.

In MasterCard the SSNIP test was disregarded as inappropriate due to (1) the presence of different, separate, demands, and (2) the presence of vertical network effects between the different levels. The application of a SSNIP test on the acquiring market was disregarded too, because of a perceived risk of a cellophane fallacy.

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181 Google Shopping Decision, para. 160.
182 Google Shopping Decision, para. 160.
The SSNIP test was rejected for two possible applications. First, MasterCard claimed that the test should have been applied on the sum of charges to cardholders and merchants, but this was rejected since it would imply that the distinct demand of cardholders for payment cards and the distinct demand of merchants for acquiring services are integrated into one single demand. The Commission also pointed out that the two sides react differently to changes in price levels.\textsuperscript{183} It is appropriate to recognize these differences at this step in the assessment, not when assessing whether one or several markets should be defined, as the Commission also did. Differences in price sensitivities highlight yet another issue with applying the SSNIP test on multi-sided markets. Since a multi-sided market by definition applies a non-neutral price structure, how should the increase in price be distributed between the two sides? And, how should the different price sensitivities be accounted for? An increase of 5 – 10\% might be valued differently on the different sides. This is crucial to include in the application, since a decrease in demand on one side results in decreased demand on the other side, due to the network effects present.\textsuperscript{184} An exaggerated result on one side, because of a failure to recognize differences in price sensitivities, therefore leads to an exaggerated result on the other side as well. However, MasterCard’s proposed method of applying the SSNIP test on multi-sided transaction markets has some support in economic literature. One proposed method is to increase the total sum paid by both sides while allowing for the undertaking in question to adjust the increase in accordance with its price structure.\textsuperscript{185} For example, if the price is increased by 10\%, by increasing the price by 1\% on one side and 9\% on the other. Thereby, differences in price sensitivities and network effects would be accounted for.

In the Market Definition Notice and the Discussion Paper, it is a stated goal that a variety of methods should be applied when checking the robustness of possible alternative market definitions and that the Commission’s approach is aimed at making an effective use of all available information.\textsuperscript{186} Though as concluded in this Section, there are several issues relating

\textsuperscript{183} MasterCard MIF Decision, para. 264.

\textsuperscript{184} This is the case when crossing network effects are present, because then it is irrelevant on which side the decrease in demand takes place (presuming that the network effects are equally strong). When network effects in only one direction is present, this chain reaction should only occur if the demand of the subsidized side decreases.

\textsuperscript{185} Filistrucchi and others, Market definition in two-sided markets: theory and practice, p. 331.

\textsuperscript{186} Market Definition Notice, para. 25; Discussion Paper, para. 13.
to applying quantitative methods to multi-sided markets. Instead, qualitative measures are used. Even though versions of the SSNIP test tailored for multi-sided markets have been proposed, they have not yet made their way into decisional practice and case law. Yet it is apparent that the respective market’s multi-sidedness influenced the assessment in that, for example, the SSNIP test was not applied due to the presence of interdependent but separate demands.

One of the more interesting questions regarding the appealed *Google Shopping* decision is whether the Commission’s assessment of substitutability between comparison shopping services and merchant platforms in *Google Shopping* will be upheld by the Court. The Commission argued that the direct purchase functionality set the two services apart both from the users’ and the retailers’ perspective, as described above. But in some cases, as with Idealo, there exists an overlap due to the direct purchase functionality. The Commission recognized that Idealo competes with Google Shopping, though it is not clear whether Idealo and Google Shopping were deemed to fully compete or if competition only exists for the retailers without direct purchase functionalities. Furthermore, it was not discussed whether comparison shopping services such as Idealo also compete with merchant platforms, and if so, only for the retailers that agree on offering direct purchase functionalities. As it seems like the assessment is indeed not binary but based on a scale, and that overlaps therefore can exist, the argument that comparison shopping services do not compete with merchant platforms due to the lack of direct purchase functionalities is not fully convincing without a clarification of this uncertainty. This uncertainty is present regarding substitutability on both sides, as the lack of direct purchase functionalities was used as an argument for lack of demand substitutability on from the users’ as well as the retailers’ perspective. Fortunately, the applicant has claimed in its appeal that the Commission erred in its analysis of the competitive constraints exerted by merchant platforms, which means that the Commission’s reasoning and conclusion will be scrutinized by the Court.187

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7 Summary

The examination above has shown that multi-sided markets pose difficulties when the relevant product market is to be defined. These difficulties pertain to two questions. The first question is whether one or several markets should be defined. In this regard, it is not easy to extract a coherent method from the cases examined. Instead, the methods applied give the impression of ad hoc-solutions, where similar circumstances result in dissimilar outcomes. Indeed, it is hard to reconcile the different market definitions in Visa International MIF and MasterCard MIF. The uncertainties are not limited to these two cases, as the methods applied in Google Shopping too give rise to ambiguities. Why was the market for general search engine platforms separated into two distinct product markets, but the market for comparison shopping services encompassed both sides? Unfortunately, this discussion was not present in the decision. This only serves to reinforce the impression that these questions are solved on an ad hoc-basis. A clear method of approaching multi-sided markets is desirable, not least because the enforcement of competition rules must be characterized by consistency and foreseeability. Hopefully, the judgement in Google Shopping will bring further clarity to this.

Nonetheless, the conclusion is that one market should be defined when differences between competitive constraints on the two sides are absent. E contrario, this means that two markets should be defined when such differences are present. This is true regardless of the market in question being a transaction or a non-transaction market. This method seems preferable to strictly adhering to the division of multi-sided markets into transaction or non-transaction markets. If the Commission’s analysis is correct in that there are no differences in competitive constraints on the two sides of comparison shopping services, in combination with crossing network effects, the platform’s multi-sidedness is a necessary trait for both sides. This means that a substitute has to be multi-sided in order for it to be included on the relevant product market, which minimizes the risk for false negatives. Vice versa, the definition of two markets allows for one-sided products to be included on the relevant product market, which minimizes the risk for false positives. This is important not only for the binary finding of dominance or non-dominance, but also the degree of dominance. As concluded above, incorrectly defining one market may artificially inflate the degree of dominance into false super-dominance, and incorrectly defining several markets may artificially dilute the degree of dominance.
The second question is how substitutability should be measured. It is obvious from the cases examined that qualitative measures are used and not quantitative measures. The products’ characteristics, intended use, purpose, functionalities, users’ perceptions of the product, etc. were given much attention. The SSNIP test was not applied in any of the cases. The first conclusion to be drawn from the examination above is therefore that the difficulties regarding measuring substitutability on multi-sided markets mainly concern quantitative measures. The arguments against applying a SSNIP test related to the cellophane fallacy (in two different forms, one of which was deceivingly similar to the reverse cellophane fallacy) and differences in price sensitivities between the two sides. Network effects present an additional difficulty, which may lead to exaggerated results when measuring substitutability.

The second conclusion to be drawn is that there exists a reluctance to apply a SSNIP test in a way that is tailored for multi-sided markets. One method that has been proposed is to apply the test on the total sum paid by both sides, while allowing the intermediary to adjust the increase in price in accordance with its price structure. The categorical dismissal of applying the test in this way suggests that adapted versions have some time to wait before being introduced into case law and decisional practice. If they, as their proponents argue, are a robust way of broadening the evidence of possible substitutability, this is unfortunate. The risk of defining the market overly narrow or overly broad is of course present in this regard as well. A broader spectrum of evidence therefore minimizes the risk of incorrectly finding both dominance and non-dominance.
Appendix 1

A summarizing chart of the Commission’s arguments against substitutability between comparison shopping services and other examined products.

<table>
<thead>
<tr>
<th>Examined Substitutes to Comparison Shopping Services (CSSs)</th>
<th>Demand-Side Substitutability?</th>
<th>Supply-Side Substitutability?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertisers and Retailers</td>
<td>Users</td>
<td></td>
</tr>
<tr>
<td>Other Specialized Search Services (OSSs)</td>
<td>Not discussed.</td>
<td>No, significant investments needed for OSSs to provide CSSs.</td>
</tr>
<tr>
<td>Online Search Advertising Platforms (OSAPs)</td>
<td>No, CSSs and OSAPs are complementary.</td>
<td>No, differences in functionalities and infrastructures required.</td>
</tr>
<tr>
<td>Online Retailers (ORs)</td>
<td>No, ORs and CSSs are business partners rather than competitors.</td>
<td>No, differences in functionalities and infrastructures required.</td>
</tr>
<tr>
<td>Merchant Platforms (MPs)</td>
<td>No, - MPs are for retailers who want to cede control over their retail activities and CSSs are not; - MPs and CSSs are business partners, not competitors.</td>
<td>No, - MPs and CSSs serve different purposes (i.a., CSSs are not final destinations); - Different retailers are listed on CSSs and MPs - Differences in range of results.</td>
</tr>
<tr>
<td>Offline Comparison Shopping Tools (OCSTs)</td>
<td>Not discussed.</td>
<td>No, significant and time consuming investments needed for OCSTs to provide CSSs.</td>
</tr>
</tbody>
</table>
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