

Assessing Dominance on Online Platforms

An analysis of how dominance and market power are assessed
regarding online platforms under EU competition law

William Fagervall

Master's Thesis in European and International Trade Law

HARN63

Spring 2021

Supervisor: Jörgen Hettne



SCHOOL OF
ECONOMICS AND
MANAGEMENT

Table of Contents

Abbreviations	6
1. Introduction	7
1.1 Background.....	7
1.2 Aim and Research Questions	8
1.3 Scope and Constraints.....	9
1.4 Method and Materials.....	10
1.5 Structure	12
2. The Dominance Assessment.....	13
2.1 Introduction.....	13
2.2 The Concept of Dominance.....	13
2.3 Market Definition and Market Shares.....	15
2.3.1 Introduction.....	15
2.3.2 Market Definition	15
2.3.3 The Relevant Product Market	17
2.3.4 The Relevant Geographic Market.....	18
2.3.5 Market shares	19
2.3.6 Summary.....	20
2.4 Other Factors.....	20
2.4.1 Introduction.....	20
2.4.2 Potential Competition	21
2.4.3 Countervailing Buyer Power.....	22
2.4.4 Hoffmann-La Roche v Commission	23
2.4.5 Summary.....	24
3. Dominance on Online Platforms	27
3.1 Introduction.....	27
3.2 The Emergence of New Terms	27
3.2.1 Introduction.....	27
3.2.2 Data and Big Data.....	27
3.2.3 Online Platforms and Two-sided Markets	28
3.3 Market Definition and Market Shares.....	29
3.3.1 Introduction.....	29

3.3.2	Challenges and Solutions.....	29
3.3.3	Summary.....	33
3.4	Other Factors.....	34
3.4.1	Introduction.....	34
3.4.2	Network Effects	34
3.4.3	Multi-homing.....	38
3.4.4	Data as an ‘Other Factor’ - In Theory	40
3.4.5	Data as an ‘Other Factor’ - In Practice	44
3.4.6	Potential ‘Other Factors’	46
3.4.7	Summary.....	47
4.	Summary and Conclusions	49
	Bibliography	55
	Cases.....	61

Abstract

Strong online platforms, such as Facebook, Amazon and Google, pose new obstacles in the field of EU competition law. For example, the process of assessing dominance is generally divided into two steps: (i) defining the market and estimating the undertakings' market shares and (ii) analysis of 'other factors' that are indicative of market power. However, since online platforms differ considerably in nature from most other markets, the application process and applicability of these two steps may vary. Therefore, this thesis aims to describe and analyse how dominance is assessed on online platforms with emphasis on when online platforms, because of their unique nature, must be approached differently.

In conclusion, a large market share may not be indicative of market power on online platforms. As a result, competition authorities must adapt by paying attention to new 'other factors' that have emerged in relation to online platforms. For example, network effects seem to be the root of many substantial barriers to entry and expansion. On the other hand, multi-homing can generally be assumed to be an 'other factor' capable of reducing market power. Moreover, the mere possession of large amounts of quality data, and the ability to efficiently collect, process and utilise data, can facilitate increased market power under certain circumstances. Network effects, multi-homing and data as 'other factors' should advisably be considered together when assessing dominance since they are closely related. However, new competition law instruments and tools, such as the DMA, may be essential to efficiently confront the new challenges that arise as a consequence of online platforms' unique characteristics.

Abbreviations

CJEU	Court of Justice of the European Union
CMA	The Competition & Markets Authority
DMA	Digital Markets Act
DSA	Digital Services Act
EEA	European Economic Area
EDPS	The European Data Protection Supervisor
EU	European Union
HHI	Herfindahl-Hirschman Index
ISO	International Organization for Standardization
SSNIP	Small but Significant and Non-transitory Increase in Price
TFEU	Treaty on the Functioning of the European Union

1. Introduction

1.1 Background

Digitalisation is a widely discussed subject since an increasing number of sectors are influenced by this ongoing process. Digitalisation has made it possible to efficiently collect data from millions of users on an everyday basis. As a result, certain undertakings enjoy enormous benefits from the gathering and utilisation of data.¹ Online platforms, such as Facebook, Amazon and Google, pose new challenges for the competition law enforcement that competition authorities have dedicated exceptional attention to. The massive flows of data on online platforms may have become a threat to the competitive process that competition authorities, and today's legislation, are unprepared to oppose efficiently. Margrethe Vestager² held in her speech at the European Internet Forum that:

The giants of the Internet have worked out how to turn those huge flows of data in their favour. And as the Internet has become a central part of our lives, their power to control the flow of information has become power over the way our economies and societies work. Today, the privacy of millions of people is at stake, if a big digital platform lets someone harvest our data without our consent – the way Cambridge Analytica harvested data through Facebook. Today, the decisions that big platforms make, about how to rank different sellers in search results, or how to use the data they collect about their users, have a huge influence on the fate of the millions of businesses which rely on those platforms to connect with their customers. And today, the decisions that digital platforms make, about which voices to ban – or not to ban – from their platforms, can have a huge effect on our democratic choices. They can determine who gets to be heard in the debate. They can even – as we saw at the US Capitol in January – affect the success or the failure of movements that try to violently overthrow democracy.³

It is, therefore, of utmost importance to examine how competition law enforcement can adapt to take control over this situation. Thus, a central question is how Article

¹ B. Lasserre and A. Mundt, 'Competition Law and Big Data: The Enforcers' View' [2017] p. 87 <https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Fachartikel/Competition_Law_and_Big_Data_The_enforcers_view.pdf?__blob=publicationFile&v=2>.

² Executive Vice President of the European Commission for A Europe Fit for the Digital Age and European Commissioner for Competition.

³ Speech by Margrethe Vestager at the European Internet Forum, 17 March 2021 <https://ec.europa.eu/commission/commissioners/2019-2024/vestager/announcements/competition-digital-age_en> accessed 13 May 2021.

102 TFEU, which regulates unilateral conduct, applies to online platforms. When proceeding with an Article 102 investigation, “The Commission’s first step [...] is to assess whether the undertaking concerned is dominant on any given market or not.”⁴ The dominance assessment is an essential part of applying Article 102 since it is inapplicable if dominance cannot be established.⁵ Therefore, if dominance is inefficiently or incorrectly assessed due to the unique nature of online platforms, these undertakings may be able to escape the scope of a major part of competition law. Naturally, the crucial question that emerges is how dominance is, or advisably should be, assessed regarding online platforms.

The process of assessing dominance is generally divided into two steps. The Commission usually starts by estimating the undertaking’s market share. This estimation is essential for assessing dominance because it serves as evidence for how much power the company wields on the relevant market. The second step encompasses the Commission’s analysis of ‘other factors’⁶ that are indicative of market power.⁷ However, since online platforms differ considerably in nature from most other markets, do the application process and applicability of these two steps also differ? Can the economic instruments used by the Commission to define the relevant market still be efficiently applied? Can data give rise to competitive advantages and be indicative of market power?

1.2 Aim and Research Questions

This thesis aims to describe and analyse how dominance is assessed on online platforms with emphasis on when online platforms, because of their unique nature,

⁴ The European Commission, ‘Procedures in Article 102 Investigations’ <https://ec.europa.eu/competition-policy/antitrust/procedures/article-102-investigations_en> accessed 13 May 2021; “The assessment of whether an undertaking is in a dominant position and of the degree of market power it holds is a first step in the application of Article [102].” Communication from the Commission - Guidance on the Commission’s enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, *OJ C 45, 24.2.2009, p. 7–20*, p. 9.

⁵ Another crucial part of an Article 102 investigation is determining abuse. However, the abuse assessment is not analysed in this thesis because of reasons mentioned under section 1.3 *Scope and Constraints*.

⁶ In this thesis the concept ‘other factor(s)’ encompasses all factors of relevance when assessing dominance except the allegedly dominant undertaking’s market shares on the relevant market.

⁷ The European Commission, ‘Procedures in Article 102 Investigations’ <https://ec.europa.eu/competition-policy/antitrust/procedures/article-102-investigations_en> accessed 13 May 2021.

must be approached differently. This aim is achieved through answering the following questions:

How is dominance assessed regarding online platforms under EU competition law?

- i. How is dominance assessed regarding online platforms based on market definition and market shares?
- ii. How is dominance assessed regarding online platforms based on ‘other factors’?

1.3 Scope and Constraints

The scope of this thesis is narrowed down to only the dominance assessment, therefore, excluding another major part of Article 102 TFEU regarding abuse. Since many scholars have dedicated considerable time and effort to analysing new categories and examples of abuse that have emerged regarding online platforms, this field of study has already been examined in depth.⁸ Moreover, to achieve the appropriate depth of analysis required for this study, all resources available to this project should be dedicated to this complex field of law. Otherwise, the conclusions drawn would merely be on a general level. Therefore, this study does not include an analysis of how abuse is assessed regarding online platforms, even though a greater understanding of the abuse assessment is equally important to promote proper and efficient enforcement of Article 102 TFEU.

Furthermore, it is not relevant to provide an in-depth analysis of how dominance is assessed on a general basis in this study. Many aspects of a general dominance assessment are equally applicable to undertakings on all different markets, notwithstanding the differing nature of the markets. Therefore, this study does not cover these areas unless necessary or preferable to strengthen or support a conclusion.

⁸ See for example: M.P.L. Rato and N. Petit, ‘Abuse of Dominance in Technology-Enabled Markets: Established Standards Reconsidered?’ [2014] <<https://ssrn.com/abstract=2387357>>; D. Mandrescu, ‘Applying EU Competition Law to Online Platforms: The Road Ahead’ [2017] <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3117840>; R.A.C. Pfeiffer, ‘Digital Economy, Big Data and Competition Law’ [2019] <<https://ssrn.com/abstract=3440296>>.

1.4 Method and Materials

The EU is an international organisation that has its origins in the *jus gentium*⁹. EU law was declared to be a separate legal order within international law in the case of *Van Gend en Loos*¹⁰. The EU legal method was developed as a more systematic approach to interpret sources of EU law correctly. There are differing views on whether EU law should be considered part of international law or national law, and one can argue that it should be interpreted as a mix of both.¹¹

EU law contains different legal instruments that are arranged in a hierarchical order. The primary law is superior to all EU law and consists of treaties. The acts drafted through the treaties are designated secondary law level and may be binding or non-binding.¹² Binding sources of law include primary law, binding secondary law,¹³ international agreements, general principles of EU law and the case law of the Court of Justice of the European Union (CJEU).¹⁴ Guiding and thus non-binding secondary law are, for example, preparatory work, the Advocate Generals' opinions, judicial doctrine and economic theories.¹⁵

The field of law governing the topic of this thesis is EU Competition law. Therefore, the different legal instruments drafted, proposed or adopted by the EU is of utmost importance when answering the research questions. Accordingly, the EU legal method, developed by the CJEU, is used throughout this thesis to approach the material produced by the EU, as well as scholars' interpretations of EU law. The method is based on teleological interpretation, meaning that the provisions must be

⁹ International law.

¹⁰ Case 26/62, *Van Gend en Loos* [1963].

¹¹ J. Reichel - M. Nääv and M. Zamboni (red.), *Juridisk Metodlära* [2018] p. 109f.

¹² J. Hettne and I. Otken Eriksson, *EU-rättslig metod – Teori och genomslag i svensk rättstillämpning* [2011] p. 40ff.

¹³ For example: regulations, directives and decisions.

¹⁴ J. Hettne and I. Otken Eriksson, *EU-rättslig metod – Teori och genomslag i svensk rättstillämpning* [2011] p. 40; "The CJEU is divided into 2 courts: Court of Justice – deals with requests for preliminary rulings from national courts, certain actions for annulment and appeals. General Court – rules on actions for annulment brought by individuals, companies and, in some cases, EU governments. In practice, this means that this court deals mainly with competition law, State aid, trade, agriculture, trade marks." The European Union, 'Court of Justice of the European Union (CJEU)' <https://europa.eu/european-union/about-eu/institutions-bodies/court-justice_en> accessed 19 May 2021.

¹⁵ J. Hettne and I. Otken Eriksson, *EU-rättslig metod – Teori och genomslag i svensk rättstillämpning* [2011] p. 40.

interpreted in the light of their purpose instead of isolated from their context.¹⁶ The teleological method mainly serves three purposes in EU law. The first purpose is to promote the aims pursued by means of certain provisions. Thus, the task of the CJEU is to interpret in the way that best corresponds to the purpose of a particular provision. The second purpose is to make sure that irrational consequences do not arise due to literal interpretations. The third purpose concerns filling gaps in EU law. Gap filling is a substantial part of developing the EU legal system since it ensures that the legislation and interpretations are up to date, as well as promoting legal certainty.¹⁷

The sources used are chosen in accordance with the method description given above. However, an insufficient number of judgements clarify how dominance is assessed regarding online platforms to draw conclusions solely based on case law. Therefore, the study is focused on judicial literature and articles that both provide relevant perspectives of this perplexing field of law and exemplifies the current state of research.¹⁸ In addition, the Commission has provided guidance related to the dominance assessment. For example, the *Commission Notice on the definition of relevant market for the purposes of Community competition law*¹⁹ sheds light on how the Commission defines the relevant product market and the relevant geographic market.²⁰ However, what should be accentuated is that, even if the Commission has a certain guiding role concerning competition law, this notice does not govern how the CJEU interprets the concept ‘relevant market’.²¹ The Commission’s notices or communications are not legislative.²² However, the CJEU has given recognition and confirmation to this particular notice in several judgements, strengthening its legitimacy as a source in this study.²³ An additional example is the *Communication from the Commission on Guidance on the*

¹⁶ J. Hettne and I. Otken Eriksson, *EU-rättslig metod – Teori och genomslag i svensk rättstillämpning* [2011] p. 34ff.

¹⁷ J. Hettne and I. Otken Eriksson, *EU-rättslig metod – Teori och genomslag i svensk rättstillämpning* [2011] p. 168f

¹⁸ See *Bibliography* for a detailed list of judicial literature and articles.

¹⁹ Commission Notice on the definition of relevant market for the purposes of Community competition law, *OJ C 372, 9.12.1997, p. 5–13*.

²⁰ *ibid*, para. 1.

²¹ *ibid*, para. 6.

²² R. Whish and D. Bailey, *Competition Law* [2018] p. 35.

²³ *Ibid*, p. 29, 35.

*Commission's enforcement priorities in applying Article [102]*²⁴. This communication, intuitively, sets out a general framework of how dominance is assessed.²⁵ Since this communication is mainly based upon judgements from the CJEU, it also provides insight into the CJEU's enforcement priorities, which in turn strengthens its legitimacy.²⁶

1.5 Structure

In Chapter 2, the dominance assessment is clarified from a general perspective to introduce this complex discussion to the reader. Firstly, light is shed over the concept of dominance, its relation to market power and the criterion of 'acting independent' is discussed. Secondly, the processes of market definition and estimating market shares are explained. Thirdly, the relevance of 'other factors' is introduced.

In Chapter 3, the topics discussed in the previous chapter are elaborated upon by incorporating the perspective of online platforms. The complexity of defining the relevant market is discussed, and the significance of market shares for the dominance assessment is scrutinised. Then, potential new 'other factors' are identified and analysed.

In Chapter 4, conclusions are drawn and summarised based on the findings from previous chapters.

²⁴ Communication from the Commission - Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, *OJ C 45*, 24.2.2009, p. 7–20.

²⁵ *ibid*, para. 2.

²⁶ Communication from the Commission - Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, *OJ C 45*, 24.2.2009, p. 7–20.

2. The Dominance Assessment

2.1 Introduction

The CJEU held in *United Brands*²⁷ that: “In general a dominant position derives from a combination of several factors which, taken separately, are not necessarily determinative.”²⁸ The ‘several factors’ referred to encompass anything evidential of the existence or absence of market power. In this thesis, these ‘several factors’ are divided into two general categories: market shares and ‘other factors’. However, before these categories are further explained, the concept of dominance should be clarified.

2.2 The Concept of Dominance

The legal term ‘dominance’ derives from Article 102 TFEU.²⁹ It is defined in *United Brands*³⁰ as “[...] a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers.”³¹ Geradin *et al.* approached the academic debate of whether this definition consists of two elements or if the elements should be interpreted as the same. The elements debated are (i) the power to behave independently of competitors, customers and consumers; and (ii) the ability to prevent effective competition from being maintained on the

²⁷ Case 27/76, *United Brands v. Commission* [1978].

²⁸ Case 27/76, *United Brands v. Commission* [1978] para. 66.

²⁹ “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.” [Added emphasis] Article 102, Treaty on the Functioning of the European Union (TFEU).

³⁰ Case 27/76, *United Brands v. Commission* [1978].

³¹ Case 27/76, *United Brands v. Commission* [1978] para. 65; Case 85/76 *Hoffmann La Roche v. Commission* [1979] para. 38. The definition has been frequently used by the Commission and the CJEU ever since, e.g., Case T-65/98, *Van den Bergh Foods v. Commission* [2003] para. 154; Case C-396/96 *Compagnie Maritime Belge Transports v. Commission* [2000] para. 34; Case 322/81 *Michelin v Commission* [1983] para. 30.

relevant market. Geradin *et al.* share the perspective that it is one single element since the CJEU has never distinguished between the elements.³²

Furthermore, Geradin *et al.* held that the concept of ‘acting independently’ within the definition of dominance is not satisfactory since an undertaking can never act independently. An undertaking is always limited by the demand curve of the goods and services offered on the market. In other words, the customers always have market power on any given market because they can alter the demand curve. The demand curve is also affected by the competitors on the market to some extent, even if the undertaking in question is dominant. For example, when a competitor offers an interchangeable product on the market, it might reduce demand for the product that the dominant undertaking offers.³³

Although it is true that an undertaking can never act completely independently, I disagree with the view of Geradin *et al.* regarding their understanding of this concept’s inapplicability. An undertaking does not have to be able to act completely independently to be considered dominant. The undertaking’s ability to ‘act to an appreciable extent independently’ suffices. This points to the fact that the concept of ‘acting independently’ is not supposed to be interpreted as binary the way Geradin *et al.* suggest. Instead, ‘acting independently’ is a scale where certain degrees of independence can be held or obtained.³⁴ Therefore, the question to be asked when assessing dominance is: to what extent does the undertaking act independently? If the undertaking is dominant, the answer is that ‘the undertaking act independently to an appreciable extent’. The Commission partly confirms this view by holding that: “This notion of independence is related to the degree of competitive constraint exerted on the undertaking in question.”³⁵ Moreover, the importance of proving independence closely relates to market power.³⁶ If an

³² D. Geradin, P. Hofer, F. Louis, N. Petit and M. Walker, ‘The Concept of Dominance in EC Competition Law’ [2005] p. 3. <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=770144>.

³³ *ibid.*

³⁴ See e.g., Case 85/76 *Hoffmann-La Roche v Commission*, para. 78. The CJEU refers to a “[...] degree of independence enjoyed by Roche”.

³⁵ Communication from the Commission - Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, *OJ C 45, 24.2.2009*, p. 7–20, para. 10.

³⁶ R.A.C. Pfeiffer, ‘Digital Economy, Big Data and Competition Law’ [2019] p. 66. <<https://ssrn.com/abstract=3440296>> Pfeiffer held that: “[M]arket power is not an absolute term, but a matter

undertaking wields sufficient market power on the relevant market, it can act independently to an appreciable extent, in other words, enjoying a dominant position.

To summarise, there is a correlation between market power and the ability to act independently, and they should both be seen as scales. In essence, all undertakings have some market power and can act independently to some degree. The undertakings' degree of market power determines if it can act independently to an appreciable extent and, therefore, it determines whether the undertaking is dominant or not on the relevant market.

2.3 Market Definition and Market Shares

2.3.1 Introduction

Market definition refers to the process of defining the relevant market, which comprises both the relevant product market and the relevant geographic market. It is an instrument to establish and determine the boundaries of competition between undertakings.³⁷ Estimating market shares is one of two substantial elements of assessing dominance. However, this cannot be done before the relevant market is defined since market shares have to be estimated within the boundaries of the relevant market to provide insight into the competitive environment of the market.³⁸

2.3.2 Market Definition

The purpose of defining the relevant market is to identify the areas in which the concerned undertakings compete. Once the relevant market is defined, competition law can be applied correctly and efficiently.³⁹ In general, the relevant product market is defined first, followed by the definition of the relevant geographic market

of degree that will depend on the circumstances of each case.” The circumstances referred to are the previously mentioned ‘other factors’ in addition to market shares on the relevant market.

³⁷ Case 27/76, *United Brands v. Commission* [1978] para. 10; Commission Notice on the definition of relevant market for the purposes of Community competition law, *OJ C 372, 9.12.1997, p. 5–13*, para. 2.

³⁸ Commission Notice on the definition of relevant market for the purposes of Community competition law, *OJ C 372, 9.12.1997, p. 5–13*, para. 2.

³⁹ *ibid*, para. 2.

since the geographic market is defined partly based on where the relevant product is provided.⁴⁰

How the relevant market is defined, based on both the relevant product market and the relevant geographic market, is decisive for the outcome of competition law disputes.⁴¹ Commonly, the Commission faces a choice of several potential relevant markets, and the choice determines whether the undertaking is considered dominant.⁴² For example, if one or more products are included in the relevant product market, thereby including more undertakings in the assessment, it may lead to the conclusion that the undertaking is not dominant since the undertakings' relative market power has now decreased.⁴³ The same rule applies to the relevant geographic market when it is defined as, for example, one Member State compared to the entire EEA.⁴⁴ When the relevant market is widely defined, thus including more undertakings in the assessment, the undertaking's relative market power and market share are reduced.

It should also be noted that it is rarely possible to precisely define the relevant market since the relevant market's boundaries are seldom precise. The products considered being within the relevant market are rarely perfect substitutes. Moreover, the products considered not being part of the relevant market can, despite this, subject the product in question to certain competitive pressure. Therefore, they should not be entirely excluded from the overall assessment. Undertakings may encounter competitive pressure from products whether they are outside or within the relevant market, thus, resulting in legal uncertainties within this field.⁴⁵ In Geradin's *et al.* words: "There are serious problems with market definition in Article [102] cases."⁴⁶

⁴⁰ Commission Notice on the definition of relevant market for the purposes of Community competition law, *OJ C 372, 9.12.1997, p. 5–13*, para. 8.

⁴¹ *ibid*, paras. 2, 4.

⁴² *ibid*, para. 26.

⁴³ *ibid* para. 26.

⁴⁴ European Commission, Decision of 14 March 2000, Case M.1672, Volvo/Scania.

⁴⁵ R. Whish and D. Bailey, *Competition Law* [2018] p. 26.

⁴⁶ D. Geradin, P. Hofer, F. Louis, N. Petit and M. Walker, 'The Concept of Dominance in EC Competition Law' [2005] p. 8 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=770144>.

2.3.3 The Relevant Product Market

The Commission held in the *Market Notice*⁴⁷ that the relevant product market is defined as follows: “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.”⁴⁸ This definition is based on several guiding judgements within this field. For example, in *Continental Can*⁴⁹, the CJEU held that the degree of competition in the market must be assessed based on the product’s characteristics and ability to satisfy customer needs.⁵⁰ If these characteristics are sufficiently extraordinary, it probably limits the extent of interchangeability, thus, confirming that effective competition cannot be assumed to prevail in the market. Moreover, this judgment clarifies that the products’ ability to satisfy the consumers’ needs and the consumers’ perspective on what products are interchangeable is vital in market definition. Since the relevant product market is determined by the keywords ‘substitutability’ and ‘interchangeability’, the relevant product market is seldom widely defined.⁵¹

There are quantitative economic instruments that can be used to verify interchangeability between products. The SSNIP⁵² test is an example of such an instrument as it can be used quantitatively, using historical data, and as a speculative experiment that can be substantiated with other argumentation.⁵³ In practice, it rarely exists enough historical data to apply the SSNIP test quantitatively. Despite this, the test is applicable in most cases when applied based on the answers from ‘market surveys’^{54, 55}

⁴⁷ Commission Notice on the definition of relevant market for the purposes of Community competition law, *OJ C 372, 9.12.1997, p. 5–13*.

⁴⁸ *ibid*, para. 7.

⁴⁹ Case 6/72, *Europemballage Corporation and Continental Can v. Commission* [1973].

⁵⁰ Case 6/72, *Europemballage Corporation and Continental Can v. Commission* [1973] para. 32.

⁵¹ R. Whish and D. Bailey, *Competition Law* [2018] p. 30; Commission Notice on the definition of relevant market for the purposes of Community competition law, *OJ C 372, 9.12.1997, p. 5–13*, para. 13.

⁵² SSNIP is short for: Small but Significant and Non-transitory Increase in Price

⁵³ Commission Notice on the definition of relevant market for the purposes of Community competition law, *OJ C 372, 9.12.1997, p. 5–13*, para. 15.

⁵⁴ The collection and analysis of information that is evidential of interchangeability or substitutability from the demand-side perspective.

⁵⁵ International Competition Network, ‘Recommended Practices for Merger Analysis’ [2018] p. 5f. <https://www.internationalcompetitionnetwork.org/wp-content/uploads/2018/05/MWG_RPsforMergerAnalysis.pdf>

The SSNIP test is based on the economic theory of cross-price elasticity. Cross-price elasticity measures how the demand for a product changes when the price of a compared product increases or decreases. This proves very useful in market definition since it provides information on whether the compared products are substitutes and to what extent they are substituted in response to a change in price. In other words, if the demand for a product increases in response to a price increase of another product, these products are interchangeable in the eyes of the customers. For example, when the price of apples increases, the demand for pears should increase if the customers regard these products as sufficiently similar.⁵⁶ In general, the hypothetical price increase employed is 5–10%. If this increase causes customers to choose a substitute, the undertaking in question does not profit from raising the price due to lost sales. Furthermore, the product that the customers switched to should then be included in the relevant product market. On the contrary, if it would have been profitable for the undertaking to raise the price 5–10% since an insufficient number of customers chose substitutes, the relevant product market would not include these products.⁵⁷ In essence, the test's result estimates how customers react to a hypothetical price change of the product in question.⁵⁸

2.3.4 The Relevant Geographic Market

The scope of the relevant geographic market is defined by the Commission in the *Market Notice* as follows: “The relevant geographic market comprises the area in which the undertakings concerned are involved in the supply and demand of products or services, in which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different in those areas.”⁵⁹ Naturally, some products can easily be distributed throughout the EU or worldwide, while other products can only be distributed over a small geographic area for technical, legal or practical reasons.⁶⁰ Moreover, the Commission analyses whether additional information on interchangeability on the demand-side should be considered when

⁵⁶ R. Whish and D. Bailey, *Competition Law* [2018] p. 34

⁵⁷ Commission Notice on the definition of relevant market for the purposes of Community competition law *OJ C 372, 9.12.1997, p. 5–13*, para. 17.

⁵⁸ *ibid*, para. 15.

⁵⁹ *ibid*, para. 8.

⁶⁰ R. Whish and D. Bailey, *Competition Law* [2018] p. 38.

defining the market. For example, if customers have preferences regarding whether: (i) the product is locally or nationally produced, (ii) if any patterns concerning demand are discovered from the analysis of the demand-side purchase history, and (iii) whether there is differentiation among the products on the market.⁶¹

In summation, the relevant geographic market is strongly linked to the product market regarding substitutability through the customers' ability to reach other suppliers. The conditions on the market must be sufficiently similar for the undertakings if they are to be included in the relevant market with particular emphasis on price (e.g., transportation costs) and the distribution potential of the product.

2.3.5 Market shares

When the relevant market is defined, the Commission estimates how large market shares the concerned undertakings have.⁶² How the market shares are estimated or calculated is decided on a case-by-case basis.⁶³ Generally, the market share of an undertaking is estimated through consideration of the undertaking's revenue, sales data (by both value and volume) and relative size.⁶⁴ The degree of effective competition in the market is then assessed by evaluating the distribution of market shares between the competitors. This is commonly done through the application of the Herfindahl-Hirschman Index (HHI).⁶⁵ However, concerning new entrants, the Commission held that: "It may be possible to take the historical growth pattern of

⁶¹ R. Whish and D. Bailey, *Competition Law* [2018] p. 39.

⁶² Commission Notice on the definition of relevant market for the purposes of Community competition law, *OJ C 372, 9.12.1997, p. 5–13*, para. 2.

⁶³ Office of Fair Trading (nowadays replaced by the Competition & Market Authority), 'Assessment of market power - Understanding competition law' [2004] p. 3, para. 4.7.
<https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/284400/oft415.pdf>

⁶⁴ M. Iacovides and J. Jeanrond, 'Overcoming Methodological Challenges in the Application of Competition Law to Digital Platforms – a Swedish perspective' [2018] p. 453.
<<https://academic.oup.com/antitrust/article/6/3/437/4990330?login=true>>; Office of Fair Trading (nowadays replaced by the Competition & Market Authority), 'Assessment of market power - Understanding competition law' [2004] p. 3, para. 4.7.

⁶⁵ D. Evans, 'The Antitrust Economics of Multi-Sided Platform Markets' [2003] p. 356f.
<<https://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=1144&context=yjreg>>; See e.g., European Commission, Decision of 4 March 1999, Case M.1365, FCC/Vivendi, para. 40; European Commission, Decision of 3 July 2001, Case JV 55, Hutchison/RCPM/ECT, para. 50; For more information of how the HHI is applied see: Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings, *OJ C 031, 5.2.2004, p. 5–18*, para. 16.

new entrants in the same or in similar markets as an indication of a realistic market share of a new entrant.”⁶⁶

In general, the timeframe under which a significant market share is held (absence of fluctuation in the market) is also indicative of market power.⁶⁷ Moreover, if an undertaking has a market share below 40%, it is generally assumed not to have a dominant position.⁶⁸ Large market shares are also indicative that there exists ‘other factors’ (e.g., the existence of barriers to entry or expansion) that contribute to market power; thus, these indicative factors are closely related.⁶⁹

2.3.6 Summary

Given the above, the demand-side’s preferences can be seen as the key to identify correct substitutes, whether it is on the relevant product market or geographic market. This, in turn, lays the foundation for correctly defining the market. Market shares provide indicative information on the competitive situation in the analysed market. However, market shares do not provide information on, for example, potential competition or barriers to entry and expansion in the market, which may be decisive in assessing whether a company has market power. Nor do they give information about the ‘countervailing buyer power’, which can also influence the conclusion on whether an undertaking has market power or not, as is discussed in the following section.⁷⁰

2.4 Other Factors⁷¹

2.4.1 Introduction

What do ‘other factors’ refer to in relation to the assessment of dominance? According to the Commission, the dominance assessment should consider ‘the

⁶⁶ Communication from the Commission - Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, *OJ C 45, 24.2.2009*, p. 7–20, para. 42.

⁶⁷ *ibid*, para. 15.

⁶⁸ *ibid*, para. 14.

⁶⁹ *ibid*, para. 17.

⁷⁰ R. Whish and D. Bailey, *Competition Law* [2018] p. 42f.

⁷¹ This section is originally from: W. Fagervall, ‘Other Factors - An analysis of what constitutes “other factors” when assessing whether an undertaking is in a dominant position under Article 102 TFEU’ [2021].

competitive structure of the market'.⁷² This is a common denominator of all 'other factors'. Essentially, if 'other factors' are relevant to consider when assessing dominance, they affect 'the competitive structure of the market'. However, anything that affects 'the competitive structure of the market' is not necessarily an 'other factor'.

The Commission provides examples of 'other factors' of particular significance: First, "constraints imposed by the credible threat of future expansion by actual competitors or entry by potential competitors (expansion and entry),"⁷³ This 'other factor' is further analysed under *2.4.2 Potential Competition*. Second, "constraints imposed by the bargaining strength of the undertaking's customers (countervailing buyer power)."⁷⁴ This 'other factor' is further analysed under *2.4.3 Countervailing Buyer Power*. Third, "constraints imposed by the existing supplies from, and the position on the market of, actual competitors (the market position of the dominant undertaking and its competitors),"⁷⁵ This 'other factor' refers to actual competition from competitors that already hold market shares on the relevant market and is mentioned under *2.4.4 Hoffmann-La Roche v Commission*.

2.4.2 Potential Competition

The possibility of entry by potential competitors and expansion by actual competitors are 'other factors' that the Commission considers when assessing if an undertaking is in a dominant position. When assessing these factors, the Commission typically examines the degree of potential competitive pressure this poses against the undertaking under assessment. If expansion or entry is 'likely', 'timely' and 'sufficient', it is possible that an undertaking, which initially appeared dominant, is not. This is a result of proving the existence of potential competition.⁷⁶ First, the Commission considers entry or expansion to be 'likely' if it is sufficiently profitable for the entrant or competitor to do so. Under such evaluation, it is relevant

⁷² Communication from the Commission - Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, *OJ C 45, 24.2.2009*, p. 7–20, para. 12.

⁷³ *ibid.*

⁷⁴ *ibid.*

⁷⁵ *ibid.*

⁷⁶ *ibid.*, para. 16.

to consider; (i) potential barriers to entry and expansion, (ii) the potential reaction of the undertaking under assessment, and (iii) the calculated costs and risks of a failure to enter or expand.⁷⁷ Second, the Commission considers entry and expansion to be ‘timely’ if it is sufficiently swift in defeating or deterring the market power wielded by the allegedly dominant undertaking.⁷⁸ Third, the Commission considers entry and expansion to be ‘sufficient’ if it is not small-scale. For potential competition to be considered indicative of reduced market power, it must be to such a degree that the allegedly dominant undertaking cannot wield market power over its consumers through, for example, raising prices.⁷⁹ Naturally, barriers to expansion are frequently assessed when discussing the absence or existence of potential competition as an ‘other factor’.⁸⁰ The Commission’s view is the following:

Barriers to expansion or entry can take various forms. They may be legal barriers, such as tariffs or quotas, or they may take the form of advantages specifically enjoyed by the dominant undertaking, such as economies of scale and scope, privileged access to essential inputs or natural resources, important technologies or an established distribution and sales network. They may also include costs and other impediments, for instance resulting from network effects, faced by customers in switching to a new supplier. The dominant undertaking’s own conduct may also create barriers to entry, for example where it has made significant investments which entrants or competitors would have to match, or where it has concluded long-term contracts with its customers that have appreciable foreclosing effects.⁸¹

However, the barriers to expansion or entry mentioned above are likely not exclusionary. New barriers may be discovered as markets are constantly changing, new markets emerge, and the technological and digital markets continue to develop at a fast pace.

2.4.3 Countervailing Buyer Power

The Commission claim that: “Even an undertaking with a high market share may not be able to act to an appreciable extent independently of customers with

⁷⁷ Communication from the Commission - Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, *OJ C 45, 24.2.2009*, p. 7–20, para. 16.

⁷⁸ *ibid.*

⁷⁹ *ibid.*

⁸⁰ Case T-30/89 *Hilti v Commission*, para. 19; Case 85/76 *Hoffmann-La Roche v Commission*, para. 48; Case 27/76 *United Brands v Commission*, para. 91.

⁸¹ Communication from the Commission - Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, *OJ C 45, 24.2.2009*, p. 7–20, para. 17.

sufficient bargaining strength.”⁸² Thus, the existence of countervailing buyer power in a given market can reduce the undertakings’ market power. Moreover, countervailing buyer power partly relates to potential competition, as the Commission describes; “[...] countervailing buying power may result from the customers’ size or their commercial significance for the dominant undertaking, and their ability to switch quickly to competing suppliers, to promote new entry or to vertically integrate, and to credibly threaten to do so.”⁸³ If countervailing buying power exists to a sufficient degree, it can tear down barriers to entry and expansion, thus reducing the power wielded by the undertakings on the market by stimulating potential competition. Moreover, it can sufficiently deter the existence of a dominant undertaking or hinder undertakings from becoming dominant in the first place. However, if the countervailing buyer power only protects specific segments of customers from market power wielded by the undertakings, it is not considered an ‘other factor’ by the Commission.⁸⁴

2.4.4 Hoffmann-La Roche v Commission

*Hoffmann-La Roche*⁸⁵ provides an example of how the Commission and the CJEU assess ‘other factors’ in practice. In the contested decision preceding *Hoffmann-La Roche*⁸⁶, the Commission emphasised that the following ‘other factors’ (denoted a-f), together with Roche’s market shares on the relevant markets, prove that it held a dominant position: “(a) Roche’s market shares are not only large but there is also a big disparity between its shares and those of its next largest competitors;”⁸⁷ This argument relates to the absence of actual competition.

The following two arguments are more general and are possibly intended to prove Roche’s significant market power and the absence of actual competition: “(b) Roche produces a far wider range of vitamins than its competitors; (c) Roche is the world’s largest vitamin manufacturer whose turnover exceeds that of all the other

⁸² Communication from the Commission - Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, *OJ C 45*, 24.2.2009, p. 7–20, para.18.

⁸³ *ibid.*

⁸⁴ *ibid.*

⁸⁵ Case C-85/76, *Hoffmann-La Roche v. Commission* [1979].

⁸⁶ Case C-85/76, *Hoffmann-La Roche v. Commission* [1979].

⁸⁷ Case C-85/76, *Hoffmann-La Roche v. Commission* [1979] para. 42.

producers and is at the head of a multinational group which in terms of sales is the world's leading pharmaceuticals producer;"⁸⁸ The following three arguments primarily relate to barriers of entry and expansion as well as the absence of potential competition: "(d) Although Roche's patents for the manufacture of vitamins have expired Roche, since it has played a leading role in this field, still enjoys technological advantages over its competitors of which the highly developed customer information and assistance service which it has is evidence; (e) Roche has a very extensive and highly specialized sales network; (f) There is no potential competition."⁸⁹ In comparison, the CJEU emphasised in its judgement that the following 'other factors' are of relevance when assessing whether an undertaking is in a dominant position:

[i] the relationship between the market shares of the undertaking concerned and of its competitors, especially those of the next largest, [ii] the technological lead of an undertaking over its competitors, [iii] the existence of a highly developed sales network and [iv] the absence of potential competition, the first because it enables the competitive strength of the undertaking in question to be assessed, the second and third because they represent in themselves technical and commercial advantages and the fourth because it is the consequence of the existence of obstacles preventing new competitors from having access to the market.⁹⁰

What the Commission and the CJEU consider to be relevant 'other factors' for the dominance assessment is not perfectly overlapping. Nevertheless, there are apparent similarities in the supporting argumentation of their perspectives, meaning that both refer to the absence of potential competition or substantial imbalances concerning actual competition.

2.4.5 Summary

If the Commission considers an 'other factor' when assessing dominance, but the 'other factor' can be defended as being a result of effective competitive behaviour by the undertaking, the CJEU may reject it. Moreover, it is presumably more likely that 'other factors' are considered relevant by the CJEU if they distinctly relate to:

- i. potential competition (for example, by proving the existence or absence of barriers to entry and expansion);

⁸⁸ Case C-85/76, *Hoffmann-La Roche v. Commission* [1979] para. 42.

⁸⁹ Case C-85/76, *Hoffmann-La Roche v. Commission* [1979] para. 42.

⁹⁰ Case C-85/76, *Hoffmann-La Roche v. Commission* [1979] para. 48 [Added numbers, i–iv].

- ii. countervailing buyer power; or
- iii. actual competition (for example, by proving a significant difference between the allegedly dominant undertaking's major market share in comparison to its competitors' market shares).

However, when considering potential competition, an assessment should be made regarding whether the expansion or entry fulfil the criteria of being 'likely', 'timely' and 'sufficient'. If these criteria are not fulfilled, there is no or minimal potential competition. For example, the CJEU held in *Hoffmann-La Roche v Commission*⁹¹ that both an undertaking's technological lead over its competitors and the existence of a highly developed sales network are relevant information when assessing dominance. It is not difficult to see how these remarks can make entry and expansion 'unlikely' by posing substantial barriers to entry and expansion in most cases. Furthermore, if countervailing buyer power exists to a significant degree, it can reduce the power wielded by the undertakings on the market. To lower degrees, it can also increase potential competition and does, therefore, pose a competitive threat against the undertaking under assessment in some cases.

⁹¹ Case C-85/76, *Hoffmann-La Roche v. Commission* [1979].

3. Dominance on Online Platforms

3.1 Introduction

In this chapter, the more general observations from the previous chapter are used as a basis to analyse and clarify how dominance is assessed regarding online platforms by answering the research questions. However, firstly, some key terms are described and defined since the definition of these are not always universal and may differ between various studies. Naturally, it is crucial for the understanding of the observations and conclusions to have a mutual understanding of these terms. Secondly, challenges with market definition and the estimation of market shares are identified, and solutions are presented. Thirdly, ‘other factors’ that emerge as a result of the unique nature of online platforms are identified, and their relevance is assessed in relation to the dominance assessment.

3.2 The Emergence of New Terms

3.2.1 Introduction

Since the significance of digital markets has immensely increased during the last two decades, several new terms have been developed in this regard. However, these terms are not easily defined, which has led to numerous differing definitions. Four of these terms that are relevant for the understanding of this thesis are ‘data’, ‘big data’, ‘online platforms’ and ‘two-sided markets’. In this section, these four terms are described, and applicable definitions are presented.

3.2.2 Data and Big Data

Regarding the definition of ‘data’, the Commission adopt the definition from the International Organization for Standardization (ISO), holding that: “According to ISO/IEC 2382-1, data is ‘a reinterpretable representation of information in a formalized manner, suitable for communication, interpretation or processing’. Data can either be created/authored by people or generated by machines/sensors, often as a ‘by-product’. Examples: geospatial information, statistics, weather data,

research data, etc.”⁹² Since this definition is comprehensive, it also covers all types of personal data collected from users or customers by big data companies regarding, for example, consumption or usage patterns.

The Commission defined the term ‘big data’ as follows: “The term ‘big data’ refers to large amounts of different types of data produced with high velocity from a high number of various types of sources. Handling today’s highly variable and real-time datasets requires new tools and methods, such as powerful processors, software and algorithms.”⁹³ This definition is adopted in this thesis when discussing big data and big data companies.

3.2.3 Online Platforms and Two-sided Markets

Neither the Commission nor the CJEU has officially defined the term ‘online platform’. However, the Commission did describe the term in the following way:

Online platforms can be described as software-based facilities offering two-or even multi-sided markets where providers and users of content, goods and services can meet. As such, the term can cover a wide range of different types of platform, whose functions and characteristics can differ considerably. Examples of types of platforms include: communications and social media platforms; operating systems and app stores; audiovisual and music platforms; e-commerce platforms; content platforms, which may include content aggregators as well as software/hardware solutions; and search engines. Besides the taxonomy outlined above there are other types of platforms, such as payment systems or those related to the sharing economy.⁹⁴

It is challenging to adequately define online platforms to sufficiently capture all aspects of their unique nature. However, this description suffices since it is not required to capture all its different characteristics to fulfil the aim of this thesis.

Most services provided in regard to big data and online platforms are offered on two-sided or multi-sided markets.⁹⁵ Tirole defined two-sided markets as “[...] a

⁹² European Commission, ‘Towards a Thriving Data-Driven Economy’ [2014] 442, July 2, 2014, 2 <<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52014DC0442>>.

⁹³ European Commission, ‘Towards a Thriving Data-Driven Economy’ [2014] COM 442, July 2, 2014, 2, <<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52014DC0442>>; Compare with Boutin’s and Clemens’ definition: “The ability to collect and analyze a large volume of data which contains a variety of information in a timely manner.” X. Boutin and G. Clemens, ‘Defining ‘Big Data’ in Antitrust’ [2017] Competition Policy International: Antitrust Chronicle 2017, Summer 2017, Volume 1, Number 2, p. 4 <<https://ssrn.com/abstract=2938397>>.

⁹⁴ European Commission, ‘A Digital Single Market Strategy for Europe - Analysis and Evidence’ [2015] COM 192, p 52. <<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52015SC0100>>

⁹⁵ R.A.C. Pfeiffer, ‘Digital Economy, Big Data and Competition Law’ [2019] p. 57 <<https://ssrn.com/abstract=3440296>>.

market in which an intermediary (Visa, Sony, Alphabet, Facebook, and the real estate agency) enables sellers and buyers to interact. These ‘platforms’ bring together different communities of users seeking to interact with each other – for example, players and developers of games in the case of the videogame industry, the users of operating systems (Windows, Android, Linux or OSX on your Mac or iOS in your iPhone) and application developers; users and advertisers in the case of search engines and media; or holders of bank cards and merchants in the case of card transactions. These platforms bring both groups together and also provide a technological interface allowing them to interact”⁹⁶ In essence, a social media platform, such as Facebook, provides social networking services without a monetary fee on one side, on the other side of the platform, it provides online advertising services to be displayed on its website for a monetary fee.⁹⁷ Naturally, there are countless other examples of two and multi-sided platforms. Nevertheless, this definition is used for the term ‘two-sided market’, and when there is at least one additional side of the market, a total of three or more sides, the term ‘multi-sided market’ is used instead.

3.3 Market Definition and Market Shares

3.3.1 Introduction

The challenges that arise regarding market definition, as a result of online platforms’ unique characteristics, revolutionise the view of how indicative market shares are of market power. These challenges are identified and analysed in this section.

3.3.2 Challenges and Solutions

The first challenge in assessing dominance on online platforms is to define the relevant market. As is discussed in the previous chapter, the standard procedure of defining the market includes assessing economic factors using economic instruments, e.g., the SSNIP test. However, these tests are generally dependent on

⁹⁶ J. Tirole, *Economics for the Common Goods* [2017] p. 379. This definition was also accredited and adopted by R.A.C. Pfeiffer, ‘Digital Economy, Big Data and Competition Law’ [2019] p. 57 <<https://ssrn.com/abstract=3440296>>.

⁹⁷ I. Graef, ‘Market Definition and Market Power in Data: The Case of Online Platforms’ [2015] p. 476f <<https://ssrn.com/abstract=2657732>>.

a price to be applicable, and online platforms usually offer their services for free. This is because the absence of a price prevents adequate application both as a quantitative tool and as a speculative experiment since a price increase, in relative terms, cannot be applied to a product without a price. In other words, the commonly used quantitative methods for market definition are rarely applicable to digital platforms since a comparable element is non-existent.⁹⁸ If the test were to be applied as usual, the result would be misleading. For example, if the supply-side of the platform would raise their prices, it would most likely lead to a loss of users on the demand-side. Since the users create a substantial part of the value of the online platform, such a test would always suggest that the undertaking does not enjoy a dominant position. Moreover, the undertaking concerned would enjoy none or marginal profit from the applied price increase.⁹⁹ Evans rightfully held that: “[...] the analyst must consider these crossover effects to determine the overall effect of a price change on profits.”¹⁰⁰

However, this is not necessarily true. This instrument may be applicable on online platforms even though these markets are zero-priced if the test is slightly modified. For example, the test may be employed on the online platforms pricing structure.¹⁰¹ Mandrescu concluded that, in order for the SSNIP test to be an adequate tool for market definition for this type of platform (often online platforms), it is necessary to overcome most material and practical problems.¹⁰² Two-sided and multi-sided platforms challenge the applicability of the SSNIP test in that the market definition

⁹⁸ R. Podszun and S. Kreifels, ‘Digital Platforms and Competition Law’ [2016] p. 35. <<https://kluwerlawonline.com/journalarticle/Journal+of+European+Consumer+and+Market+Law/5.1/EuCM L2016008>>; O. Batura, N. van Gorp, P. Larouche, ‘Online Platforms and the EU Digital Single Market’ [2015] p. 10 <https://ec.europa.eu/information_society/newsroom/image/document/2016-7/nikolai_van_gorp_-_response_e-economics_to_the_uk_house_of_lords_call_for_evidence_14020.pdf>; D. Mandrescu, ‘The SSNIP Test and Zero-Pricing Strategies: Considerations for Online Platforms’ [2018] p. 257 <<https://ssrn.com/abstract=3337765>>.

⁹⁹ D. Auer and N. Petit, ‘Two-Sided Markets and the Challenge of Turning Economic Theory into Antitrust Policy’ [2015] p. 25f <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2552337>.

¹⁰⁰ D. Evans, ‘The Antitrust Economics of Multi-Sided Platform Markets’ [2003] p. 328f <<https://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=1144&context=yjreg>>.

¹⁰¹ L. Filistrucchi, D. Geradin, E. van Damme and P. Affeldt, ‘Market Definition in Two-Sided Markets: Theory and Practice’ [2014] pp. 34–38 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2240850>; D.S. Evans and R. Schmalensee, ‘The Antitrust Analysis of Multi-Sided Platform Businesses’ [2014] pp. 21–23 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2185373>.

¹⁰² D. Mandrescu, ‘The SSNIP Test and Zero-Pricing Strategies: Considerations for Online Platforms’ [2018] p. 257 <<https://ssrn.com/abstract=3337765>>.

often results in more than one market.¹⁰³ In that case, the application of the test must take into account two factors in assessing the profitability of a theoretical price increase. First, consideration must be given to the ‘indirect network effects’¹⁰⁴ between markets. Then, the demand side’s interdependence, on the one hand, and the online platform, on the other hand, must be considered. However, Mandrescu claims that in cases where the market definition refers to a product provided without a monetary fee, it is impossible to use the SSNIP test in its current state. To overcome the problem, the SSNIP test, according to Mandrescu, should be changed to a ‘non-price centric test’.¹⁰⁵

Another question that arises derives from the fact that online platforms differ in nature compared to most other markets since they usually are two or multi-sided markets.¹⁰⁶ When defining the market on online platforms, the question is whether the market definition should include all sides of the platform collectively, separately or only focus on the side that is considered relevant.¹⁰⁷ Hence, for the SSNIP test to be applicable, it is advised to first investigate what side of the market the potential conduct is taking place before defining the market. Evans held that economic instruments, such as the SSNIP test, do not consider the different sides separately but, instead, collectively as one large market.¹⁰⁸

Even if these instruments cannot be employed, the market is not undefinable.¹⁰⁹ The Commission has employed qualitative methods instead of quantitative in some cases where this procedure was considered more indicative. For example, more attention has been given to ‘other factors’ instead of the market definition and

¹⁰³ R. Podszun and S. Kreifels, ‘Digital Platforms and Competition Law’ [2016] p. 35. <<https://kluwerlawonline.com/journalarticle/Journal+of+European+Consumer+and+Market+Law/5.1/EuCM L2016008>>; D. Mandrescu, ‘The SSNIP Test and Zero-Pricing Strategies: Considerations for Online Platforms’ [2018] p. 257 <<https://ssrn.com/abstract=3337765>>.

¹⁰⁴ This phenomenon is further explained under 3.4.2 *Network Effects*.

¹⁰⁵ D. Mandrescu, ‘The SSNIP Test and Zero-Pricing Strategies: Considerations for Online Platforms’ [2018] p. 257 <<https://ssrn.com/abstract=3337765>>.

¹⁰⁶ D. Evans, ‘The Antitrust Economics of Multi-Sided Platform Markets’ [2003] p. 340 <<https://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=1144&context=yjreg>>.

¹⁰⁷ L. Filistrucchi, D. Geradin, E. van Damme and P. Affeldt, ‘Market Definition in Two-Sided Markets: Theory and Practice’ [2014] p. 9 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2240850>.

¹⁰⁸ D. Evans, ‘The Antitrust Economics of Multi-Sided Platform Markets’ [2003] p. 340 <<https://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=1144&context=yjreg>>.

¹⁰⁹ See e.g., Case T-79/12 *Cisco Systems and Messagenet v. Commission* [2013] paras. 67–74; Case T-201/04 *Microsoft v. Commission* [2007] paras. 966–970.

market shares.¹¹⁰ This provides insight into how dominance can be assessed on online platforms through the adaptivity of competition law.

Since several uncertainties regarding the applicability of the SSNIP test are now established, this and other similar instruments should preferably be replaced by qualitative methods in most cases. Provided this is successfully executed, the next problem that arises is how market shares should be estimated regarding online platforms.

Generally, the market shares of an undertaking are estimated through consideration of the undertaking's revenue and relative size.¹¹¹ Then, 'other factors' are considered together with the estimated market share of the undertaking to determine its market power. Market shares are difficult to estimate in regard to online platforms when using revenue as the indicative factor.¹¹² This supports the view that market shares are not indicative of market power on online platforms to the same extent as in other markets. The decreased relevance of market shares leads to the increased attention given to 'other factors'.¹¹³ Batura *et al.* also confirm this by holding that: "Static indicators are less reliable for an adequate measurement of market power of online platforms [...]"¹¹⁴ They further claim that more dynamic indicators, such as entry barriers as an 'other factor', should be given more attention.¹¹⁵

The general method of defining a market, partly based on demand-side substitution analysis, remains relevant concerning online platforms since interchangeability sometimes can be determined. During the process of identifying interchangeability, consideration should be taken regarding whether it should include offline

¹¹⁰ See e.g., Case 85/76 *Hoffmann-La Roche v. Commission* [1979] para. 28; Case T-340/03 *France Télécom v. Commission* [2007] paras. 79–82.

¹¹¹ M. Iacovides and J. Jeanrond, 'Overcoming Methodological Challenges in the Application of Competition Law to Digital Platforms – a Swedish perspective' [2018] p. 453
<<https://academic.oup.com/antitrust/article/6/3/437/4990330?login=true>>.

¹¹² R. Podszun and S. Kreifels, 'Digital Platforms and Competition Law' [2016] p. 35
<<https://kluwerlawonline.com/journalarticle/Journal+of+European+Consumer+and+Market+Law/5.1/EuCM L2016008>>.

¹¹³ Organisation for Economic Co-Operation and Development, Directorate for Financial and Enterprise Affairs, Competition Committee, 'Barriers to Entry', (DAF/COMP(2005)42) 6 March 2006, p. 9.

¹¹⁴ O. Batura, N. van Gorp, P. Larouche, 'Online Platforms and the EU Digital Single Market' [2015] p. 10f
<https://ec.europa.eu/information_society/newsroom/image/document/2016-7/nikolai_van_gorp_-_response_e-economics_to_the_uk_house_of_lords_call_for_evidence_14020.pdf>.

¹¹⁵ *ibid.*

alternatives such as traditional businesses that offer products or services to their customers in an office or store.¹¹⁶ However, Schepp and Wambach claim that there can never exist a single-product market in regard to data since different datasets are never interchangeable.¹¹⁷ Since online and offline platforms differ considerably in nature, these markets should be separated from each other during market definition if not an exceptional situation calls for it.

Online platforms may be volatile. Podszun and Kreifels suggest that a large market share is not indicative of market power since the power on the market may instantaneously be redistributed as a result of ‘one simple disruptive innovation’.¹¹⁸ In *Microsoft/Skype*¹¹⁹, the Commission held that: “Market shares only provide a limited indication of competitive strength in the consumer communications services markets. [...], consumer communications services are a nascent and dynamic sector and market shares can change quickly within a short period of time.”¹²⁰

3.3.3 Summary

In summation, the increasing relevance of ‘other factors’ and the emergence of new ‘other factors’ is an adaption for assessing dominance on online platforms. This consequence derives from difficulties in defining the relevant market, estimating market shares and applying economic instruments such as the SSNIP test. These difficulties result from the unique characteristics of online platforms such as zero-pricing business models, two/multi-sided markets and the complexity of estimating the value of data.

¹¹⁶ D. Mandrescu, ‘Applying EU Competition Law to Online Platforms: The Road Ahead’ [2017] p. 21 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3117840>.

¹¹⁷ N. Schepp and A. Wambach, ‘On Big Data and Its Relevance for Market Power Assessment [2016] *Journal of European Competition Law & Practice*’ [2016] p. 121 <<https://doi.org/10.1093/jeclap/lpv091>>.

¹¹⁸ R. Podszun and S. Kreifels, ‘Digital Platforms and Competition Law’ [2016] p. 36 <<https://kluwerlawonline.com/journalarticle/Journal+of+European+Consumer+and+Market+Law/5.1/EuCM L2016008>>.

¹¹⁹ European Commission, Decision of 7 October 2011, Case M.6281, *Microsoft/Skype*.

¹²⁰ European Commission, Decision of 7 October 2011, Case M.6281, *Microsoft/Skype*, para. 78.

3.4 Other Factors

3.4.1 Introduction

As was concluded in the previous section, the relevance of ‘other factors’ increases when the relevance of market definition and market shares decreases. In this section, three ‘other factors’ that have emerged in relation to online platforms increased significance are discussed and analysed.

3.4.2 Network Effects

In regard to digital markets, two-sided and multi-sided platforms are often discussed since they differ in nature from typical markets, such as the markets for raw material, because the platform users are commonly on both the demand and supply side of the transactions.¹²¹ These markets also differ in how the services that the two-sided and multi-sided platforms provide are often zero-priced. Moreover, the profit does not seldom derive from selling marketing services to companies that are not part of the transactions between the users.¹²² Lasserre and Mundt observed that: “[...] these multi-sided markets are characterized by direct and/or indirect network effects, i.e., the use of a good or service by a user directly or indirectly impacts the value of that product or service to other users. These network effects may favour market concentration, by their self-strengthening nature and the corresponding raise in entry barriers.”¹²³ In essence, network effects emerge when the users value an online service more due to a large or increasing number of users.¹²⁴

¹²¹ B. Lasserre and A. Mundt, ‘Competition Law and Big Data: The Enforcers’ View’ [2017] p. 95 <https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Fachartikel/Competition_Law_and_Big_Data_The_enforcers_view.pdf?__blob=publicationFile&v=2>.

¹²² D. Sokol and R. Comerford, ‘Antitrust and Regulating Big Data’ [2016] p. 1148 <<https://scholarship.law.ufl.edu/cgi/viewcontent.cgi?article=1817&context=facultypub>>; B. Lasserre and A. Mundt, ‘Competition Law and Big Data: The Enforcers’ View’ [2017] p. 95 <https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Fachartikel/Competition_Law_and_Big_Data_The_enforcers_view.pdf?__blob=publicationFile&v=2>.

¹²³ B. Lasserre and A. Mundt, *Competition Law and Big Data: The Enforcers’ View* [2017] p. 95. <https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Fachartikel/Competition_Law_and_Big_Data_The_enforcers_view.pdf?__blob=publicationFile&v=2>; See also D. Mandrescu, ‘Applying EU Competition Law to Online Platforms: The Road Ahead’ [2017] p. 19 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3117840>.

¹²⁴ D. Sokol and R. Comerford, ‘Antitrust and Regulating Big Data’ [2016] p. 1148; Competition & Markets Authority, ‘Online platforms and digital advertising - Market study final report’ [2020] p. 11, para. 23.

Network effects can be divided into two categories: ‘direct network effects’ and ‘indirect network effects’.¹²⁵ Direct network effects refer to when an online service increases in value to an individual user because the network increases in size, such as on social media platforms. Similarly, indirect network effects refer to the phenomenon where an online service is improved by how many users the online platform has, although excluding the value created by interactions between users. For example, search engines utilise data from users to improve search results with no user interaction.¹²⁶ Naturally, these two categories often coexist, but it is sometimes essential to differentiate between them during the dominance assessment.

Typical online platforms, such as social media platforms, are permeated by network effects since the incentives of using such a platform directly correlates to how many active users are on the platform. A large online platform also attracts more advertisers and content creators since they seek exposure to a large user base.¹²⁷ Moreover, this closely relates to economies of scale, meaning that when the scale of an online platform increase, the average costs decrease. Economies of scale are quite common in many industries and do not necessarily constitute a barrier to entry. What indeed matters is to what extent this phenomenon exists.¹²⁸

Sokol and Comerford argue that two main approaches lead to economies of scale in regard to big data and online platforms, and both are parts of the concept ‘feedback loop’. First, the theory of ‘user feedback loops’ refers to how an online

¹²⁵ Compare the definitions with: “Direct network effects arise when the value of a good increases with the number of people using that good. For example, a word processing package is more valuable to people if more people use it to the extent that standardization makes it easier to exchange documents. However, direct network effects often can be interpreted as indirect network effects. For example, the network effects for word processing packages arise mainly because people who use the package to ‘write’ value it more if more people can use the package to ‘read’. To take another example, economists often use telecommunications networks as examples of direct network effects: Each user of a telecommunications network benefits when more people also use that network because that user can connect to more people. There are, however, two distinct groups of consumers: senders and receivers. The distinction is material because operators of communications networks can and do establish separate prices for making versus receiving a call.” D. Evans, ‘The Antitrust Economics of Multi-Sided Platform Markets’ [2003] p. 332, *supra* note 17. <<https://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=1144&context=yjreg>>

¹²⁶ D. Sokol and R. Comerford, ‘Antitrust and Regulating Big Data’ [2016] p. 1148 <<https://scholarship.law.ufl.edu/cgi/viewcontent.cgi?article=1817&context=facultypub>>.

¹²⁷ R. Podszun and S. Kreifels, ‘Digital Platforms and Competition Law’ [2016] p. 35 <<https://kluwerlawonline.com/journalarticle/Journal+of+European+Consumer+and+Market+Law/5.1/EuCM L2016008>>; Competition & Markets Authority, ‘Online platforms and digital advertising - Market study final report’ [2020] p. 12, para. 28.

¹²⁸ N. Schepp and A. Wambach, ‘On Big Data and Its Relevance for Market Power Assessment’ [2016] p. 121 <<https://doi.org/10.1093/jelap/lpv091>>.

platform can gather more data the more users they acquire. In turn, the data can be used to improve its online services, which attract even more users. Second, the ‘monetisation feedback loop’ theory suggests that an online platform can gather more data the more users they acquire, thereby utilising the data to improve its online advertising services to increase profits, which can be invested in improving its online services to attract more users.¹²⁹ It is common in most markets to use theoretically similar methods for the purpose of economic growth. However, since online platforms differ in nature from other markets, this process may be quicker and may easily blow out of proportion.

The Competition & Markets Authority (CMA) noticed that once an online platform is sufficiently large, substantial barriers to entry and expansion in the market most likely exist.¹³⁰ Moreover, when network effects exist on two or more sides, the market cannot be defined as only one side. Instead, the market definition should take all sides of the market affected by the network effects into consideration.¹³¹

The CMA analysed Facebook’s position as an online platform in the social media market and concluded that:

Overall, rival social media platforms do not act as a material threat to Facebook’s competitive position. Although new entry is possible, new platforms must overcome network effects and other barriers by offering a differentiated proposition that induces users to switch. No current platform offers a range of services comparable to Facebook’s and none can provide access to a similarly extensive user base. Even where platforms are successful in developing a user base, to be viable in the long-term, they must successfully monetise their services, and in the last ten years we note that rival platforms have struggled to do this.¹³²

Conversely, Lasserre and Mundt noticed that there might be positive outcomes from network effects, for example, lowering barriers to entry and expansion for certain undertakings. Lasserre and Mundt discovered two parameters that affect whether the network effects are favourable or harmful for competition: the level of fixed

¹²⁹ D. Sokol and R. Comerford, ‘Antitrust and Regulating Big Data’ [2016] p. 1147
<<https://scholarship.law.ufl.edu/cgi/viewcontent.cgi?article=1817&context=facultypub>>.

¹³⁰ Competition & Markets Authority, ‘Online platforms and digital advertising - Market study final report’ [2020] p. 11f, paras. 23, 29.

¹³¹ R. Podszun and S. Kreifels, ‘Digital Platforms and Competition Law’ [2016] p. 35
<<https://kluwerlawonline.com/journalarticle/Journal+of+European+Consumer+and+Market+Law/5.1/EuCM L2016008>>.

¹³² Competition & Markets Authority, ‘Online platforms and digital advertising - Market study final report’ [2020] p. 12f, para. 30.

costs required to attract a large enough user base to achieve positive network effects and the difference in market shares between the competing undertakings.¹³³ Both of these parameters are examples of commonly used ‘other factors’. The first relates to how high levels of fixed costs can pose a financial barrier to entry and expansion.¹³⁴ The second relates to market shares and especially differences in market shares between competing undertakings.¹³⁵ Both parameters are discussed as ‘other factors’ of relevance when assessing dominance.¹³⁶

Even if network effects and economies of scale can be indicative of market power, it does not exclude the existence of competitive pressure, especially in regard to two or multi-sided markets.¹³⁷ Podszun and Kreifels suggest that barriers to entry and expansion are not indicative of market power since these can vary at large from one day to another.¹³⁸ Moreover, Sokol and Comerford held both that: “[...] the strength of the feedback loop may be grossly overstated.”¹³⁹ and that: “An innovative product is enough to cause users to switch, notwithstanding any network effect enjoyed by the incumbent.”¹⁴⁰ They claim that there is no clear evidence supporting why small and large competitors cannot efficiently compete due to an imbalance in the amount of data acquired. Thus, there is insufficient evidence supporting that network effects can lead to market power.¹⁴¹ However, Evans concluded that the reason why few undertakings are competing in regard to online platforms is partly because of indirect network effects, hence, implicitly accepting its relevance as an ‘other factor’ indicative of market power.¹⁴² Similarly, the

¹³³ B. Lasserre and A. Mundt, ‘Competition Law and Big Data: The Enforcers’ View’ [2017] p. 95 <https://www.bundeskartellamt.de/SharedDocs/Publication/EN/Fachartikel/Competition_Law_and_Big_Data_The_enforcers_view.pdf?__blob=publicationFile&v=2>.

¹³⁴ Communication from the Commission - Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, *OJ C 45, 24.2.2009*, p. 7–20, para. 17.

¹³⁵ Compare with Case C-85/76, *Hoffmann-La Roche v. Commission* [1979] para. 48.

¹³⁶ Compare with Case C-85/76, *Hoffmann-La Roche v. Commission* [1979] para. 48.

¹³⁷ N. Schepp and A. Wambach, ‘On Big Data and Its Relevance for Market Power Assessment’ [2016] p. 122 <<https://doi.org/10.1093/jeclap/lpv091>>.

¹³⁸ R. Podszun and S. Kreifels, ‘Digital Platforms and Competition Law’ [2016] p. 36 <<https://kluwerlawonline.com/journalarticle/Journal+of+European+Consumer+and+Market+Law/5.1/EuCM L2016008>>.

¹³⁹ D. Sokol and R. Comerford, ‘Antitrust and Regulating Big Data’ [2016] p. 1148 <<https://scholarship.law.ufl.edu/cgi/viewcontent.cgi?article=1817&context=facultypub>>.

¹⁴⁰ *ibid*, p. 1149.

¹⁴¹ *ibid*, p. 1148f.

¹⁴² D.S. Evans, ‘The Antitrust Economics of Multi-Sided Platform Markets’ [2003] p. 354 <<https://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=1144&context=yjreg>>.

Commission's view on network effects is that: "The existence of network effects as such does not *a priori* indicate a competition problem in the market affected by a merger. Such effects may however raise competition concerns in particular if they allow the merged entity to foreclose competitors and make more difficult for competing providers to expand their customer base. Network effects have to be assessed on a case-by-case basis."¹⁴³

In conclusion, network effects are the root of many substantial barriers to entry and expansion on online platforms. Network effects often share the trait of the snowball effect and can quickly grow out of proportion. This phenomenon can provide an online platform with enormous market power within a small timeframe, and once this position is claimed in the market, it can effortlessly be held or strengthened since the absence of potential competition allows it. However, there may be positive outcomes of network effects if the level of fixed costs needed to attract a large enough user base is sufficiently low, and the difference in market shares between the competing undertakings is unsubstantial. In other words, there cannot be significant differences in market power between competitors, and there cannot exist substantial hindrance to competition and market entry.

3.4.3 Multi-homing

'Horizontal differentiation'¹⁴⁴ create incentives for users to join multiple platforms. This phenomenon has come to be called 'multi-homing'. For example, providers of payment cards horizontally differentiate. On one side of the market, most retailers accept a wide range of various payment cards, and on the other side, users usually have payment cards from different providers. The result is the existence of multi-homing on both sides of this two-sided platform.¹⁴⁵ Multi-homing on at least one side of the platform is common since horizontal product differentiation is lucrative

¹⁴³ European Commission, Decision of 3 October 2014, Case M.7217, Facebook/WhatsApp, para. 130.

¹⁴⁴ "Platforms can differentiate themselves from each other by choosing particular levels of quality (what is known as 'vertical differentiation') with consumers choosing the higher or lower quality of platform depending on the income and relative demand for quality. There are, for example, upscale and downscale malls. Platforms can also differentiate themselves from each other by choosing particular features and prices that appeal to particular groups of customers (what is known as 'horizontal differentiation')." R. Schmalensee and D.S. Evans, 'Industrial Organization of Markets with Two-Sided Platforms' [2007] p. 166 <<https://ssrn.com/abstract=987341>>.

¹⁴⁵ R. Schmalensee and D.S. Evans, 'Industrial Organization of Markets with Two-Sided Platforms' [2007] p. 166 <<https://ssrn.com/abstract=987341>>.

and thus the norm.¹⁴⁶ However, proving the existence of multi-homing is limited in its evidentiality for the dominance assessment. Thus, during an assessment, accountability should be taken to the fact that there may still exist various degrees of multi-homing (similarly to how market power should be understood).

The level of multi-homing in the market is crucial to consider when the costs of switching between providers are low since the most valuable and large amounts of data for the undertakings are gathered from regular usage of the service provided. When users are irregular in their usage of the service, the data gathered may be inaccurate or insufficient. However, since frequently switching between different providers can be expensive and time-consuming, it is unlikely for ‘perfect multi-homing’ to exist in a market. In markets where the services are zero-priced, as is usually the case on online platforms, one can assume that the users base their choice on the quality of the product. This consumer behaviour may limit potential competition since new entrants are unlikely to provide services of equal quality to the established undertakings in the market.¹⁴⁷ However, Podszun and Kreifels support the relevance of multi-homing by claiming that: “To keep markets open and to challenge the market power of dominant firms, it is crucial that customers can do multihoming [...]”¹⁴⁸ In essence, multi-homing can generally be assumed to reduce market power.¹⁴⁹

In conclusion, multi-homing is somewhat comparable to ‘countervailing buyer power’¹⁵⁰. It is a way that users can decrease or redistribute the market power of the

¹⁴⁶ R. Schmalensee and D.S. Evans, ‘Industrial Organization of Markets with Two-Sided Platforms’ [2007] p. 167 <<https://ssrn.com/abstract=987341>>; D. Sokol and R. Comerford, ‘Antitrust and Regulating Big Data’ [2016] p. 1137 <<https://scholarship.law.ufl.edu/cgi/viewcontent.cgi?article=1817&context=facultypub>>.

¹⁴⁷ B. Lasserre and A. Mundt, ‘Competition Law and Big Data: The Enforcers’ View’ [2017] p. 95f <https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Fachartikel/Competition_Law_and_Big_Data_The_enforcers_view.pdf?__blob=publicationFile&v=2>.

¹⁴⁸ R. Podszun and S. Kreifels, ‘Digital Platforms and Competition Law’ [2016] p. 36. <<https://kluwerlawonline.com/journalarticle/Journal+of+European+Consumer+and+Market+Law/5.1/EuCM L2016008>>.

¹⁴⁹ D. Sokol and R. Comerford, ‘Antitrust and Regulating Big Data’ [2016] p. 1137 <<https://scholarship.law.ufl.edu/cgi/viewcontent.cgi?article=1817&context=facultypub>>; M. Armstrong, ‘Competition in Two-Sided Markets’ [2006] pp. 667-670 <<http://www.jstor.org/stable/25046266>>; B. Lasserre and A. Mundt, ‘Competition Law and Big Data: The Enforcers’ View’ [2017] p. 95 <https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Fachartikel/Competition_Law_and_Big_Data_The_enforcers_view.pdf?__blob=publicationFile&v=2>; See also, M. Armstrong, ‘Competition in Two-Sided Markets’ [2006] pp. 668-691 <<http://www.jstor.org/stable/25046266>>; R. Schmalensee and D.S. Evans, ‘Industrial Organization of Markets with Two-Sided Platforms’ [2007] pp. 151–179 <<https://ssrn.com/abstract=987341>>.

¹⁵⁰ See 2.4.3 *Countervailing Buyer Power*.

actors on a given market. Therefore, the level of multi-homing on the market may be guiding when estimating an undertaking's market power to determine whether it is dominant or not. Moreover, if there are low levels of multi-homing in the market, it may be an indication that there exist considerable barriers to entry and expansion and *vice versa*.

3.4.4 Data as an 'Other Factor' - In Theory

Data as a product is relatively new when considering the extreme extent it is gathered today on online platforms.¹⁵¹ It is unique in nature since the collection of data poses no hindrance for other undertakings from gathering the same data. In comparison, if an undertaking sells someone a banana it is difficult for a competing undertaking to, within a short timeframe, sell a banana to that same person.¹⁵² Both acquiring users and selling a product, such as a banana, creates value for the undertaking.

The Commission concluded that: "The number of ways in which digital data is generated, collected, processed and used is increasing quickly. For example, manufacturers collect and process data to optimise the flow of materials and goods while new goods and services increasingly rely on embedded data analytics (e.g. collision-avoidance systems)."¹⁵³ However, the significance of data was established before the digitalisation era, and data has consistently been a significant factor for undertakings in numerous conventional business sectors. Although, the technological progression incited by digitalisation have altogether improved the prospects to gather, analyse and financially use data in essentially all business sectors since it generally increases economic efficiency.¹⁵⁴ However, the question

¹⁵¹ R.A.C. Pfeiffer, 'Digital Economy, Big Data and Competition Law' [2019] pp. 53–55 <<https://ssrn.com/abstract=3440296>>.

¹⁵² D. Sokol and R. Comerford, 'Antitrust and Regulating Big Data' [2016] p. 1137 <<https://scholarship.law.ufl.edu/cgi/viewcontent.cgi?article=1817&context=facultypub>>; N. Schepp and A. Wambach, 'On Big Data and Its Relevance for Market Power Assessment' [2016] p. 121 <<https://doi.org/10.1093/jeclap/lpv091>>.

¹⁵³ European Commission, 'Towards a Thriving Data-Driven Economy' [2014] COM 442, July 2, 2014, 2 <<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52014DC0442>>.

¹⁵⁴ B. Lasserre and A. Mundt, *Competition Law and Big Data: The Enforcers' View* [2017] p. 90 <https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Fachartikel/Competition_Law_and_Big_Data_The_enforcers_view.pdf?__blob=publicationFile&v=2>.

is whether data can be an ‘other factor’ that increase undertakings’ market power.

Lasserre and Mundt claim that:

[S]everal competition issues associated with data concern the question of market power being supported by the collection and use of data. If this question is not new for competition enforcers - i.e. data is important for undertakings whether they are operating on an online or offline market -, it has however taken a whole new dimension in the digital markets with the recent advent of Big Data. The massive collection and use of data which are allowed by technological progress requires a renewal in our analysis of the possible contribution of data to market power, taking into account typical key specificities of online services.¹⁵⁵

The huge and ingrained online platforms, for instance, online shops, search engines and social media, can gather tremendous volumes of data produced through interaction with their users or transactions with customers.¹⁵⁶ The European Data Protection Supervisor (EDPS) held that: “The collection and control of massive amounts of personal data are a source of market power for the biggest players in the global market for internet services,”¹⁵⁷ However, Lasserre and Mundt share the view that: “[...] holding a large amount of data is not a problem in itself. But smaller companies or new entrants might in the specific case not be able to collect data to the same extent as the incumbents as they usually have less or even no users or transactions.”¹⁵⁸ In theory, these smaller undertakings can utilise third-party data, but in practice, there is probably limited accessibility of such resources in the market. Moreover, data gathered by a third party may be worth more to an undertaking that gathered the data than to an undertaking willing to buy it since they likely have a different customer base and require different information. Likewise, an undertaking enjoying the benefits of the data may be unwilling to sell or share it with its competitors.¹⁵⁹

Moreover, on markets where the gathering and utilisation of data is an essential part of the business, for example, search engines and social networking platforms, the

¹⁵⁵ B. Lasserre and A. Mundt, ‘Competition Law and Big Data: The Enforcers’ View’ [2017] p. 94-95 <https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Fachartikel/Competition_Law_and_Big_Data_The_enforcers_view.pdf?__blob=publicationFile&v=2>.

¹⁵⁶ *ibid*, p. 91.

¹⁵⁷ European Data Protection Supervisor Press Release EDPS/2014/06, ‘Privacy and Competitiveness in the Age of Big Data’ [2014] <https://ec.europa.eu/commission/presscorner/detail/en/EDPS_14_6>.

¹⁵⁸ B. Lasserre and A. Mundt, ‘Competition Law and Big Data: The Enforcers’ View’ [2017] p. 91 <https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Fachartikel/Competition_Law_and_Big_Data_The_enforcers_view.pdf?__blob=publicationFile&v=2>.

¹⁵⁹ *ibid*.

advancement of data gathering may increase the leading undertakings' market power.¹⁶⁰ The availability of more data may lead to the previously explained network effects that benefit the leading undertakings and create substantial barriers to entry and expansion.¹⁶¹ In turn, this leads to some undertakings having massive market shares and market power. At last, increased profit make it possible to invest in developing new algorithms for data collection, new services and promoting further expansion in general that may lead to the attraction of more users and thereby more data. This vicious circle leads to economies of scale, and it may harm the competitive process and even lead to monopolisation, as is probably the case with Google as a web browser search engine.¹⁶²

Schepp and Wambach observed that the exclusive control over data might especially serve as an 'other factor' when undertakings have advanced their data gathering to a level that is incontestable by its competitors.¹⁶³ Furthermore, an undertaking that enjoys large amounts of data, but cannot efficiently process or utilise it, is significantly limited in regard to market power. This effect can occur as a consequence of data's timeliness. In essence, for target advertising services to be accurate, the data cannot pass the due date. It is instead preferable to have smaller datasets that are up to date since trends quickly change. Naturally, this effect can also derive from datasets that incorporate large amounts of irrelevant data.¹⁶⁴ In other words, not only the quantity of data is essential when considering if possession of data affects an undertaking's market power, the undertaking's efficiency in processing and utilising it, as well as the data's quality, are equally important.

On the contrary, data can also make the competition on the market more effective if it increases market transparency. For example, if quality and price can easily be

¹⁶⁰ B. Lasserre and A. Mundt, 'Competition Law and Big Data: The Enforcers' View' [2017] p. 91 <https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Fachartikel/Competition_Law_and_Big_Data_The_enforcers_view.pdf?__blob=publicationFile&v=2>.

¹⁶¹ N. Schepp and A. Wambach, 'On Big Data and Its Relevance for Market Power Assessment' [2016] p. 124 <<https://doi.org/10.1093/jeclap/lpv091>>.

¹⁶² B. Lasserre and A. Mundt, 'Competition Law and Big Data: The Enforcers' View' [2017] p. 91 <https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Fachartikel/Competition_Law_and_Big_Data_The_enforcers_view.pdf?__blob=publicationFile&v=2>.

¹⁶³ N. Schepp and A. Wambach, 'On Big Data and Its Relevance for Market Power Assessment' [2016] p. 121 <<https://doi.org/10.1093/jeclap/lpv091>>.

¹⁶⁴ *ibid.*, p. 122.

compared using online platforms, such as Amazon and eBay, competition can get more intensive. In other words, the data of the products and services offered on the market are easily accessible for the users of the online platform. As long as the undertaking governing the online platform is not a competitor (i.e., not offering interchangeable goods or services on the online platform), it should only be a benefit to ease access to the market for new competitors and thereby lowering barriers to expansion and entry.¹⁶⁵ Conversely, if an undertaking provides an online platform for retailers and customers to interact, and the undertaking also provides interchangeable goods, thereby competing with the supply-side of its users, the undertaking governing the platform has more market power and a competitive advantage in that specific product market.

However, some scholars claim that data collection is not an ‘other factor’ indicative of market power. Pfeiffer observed that this perspective derives from the view that: “[...] data is ubiquitous, inexpensive, non-exclusive and non-rivalrous.”¹⁶⁶ Moreover, as Pfeiffer observed, an undertaking that efficiently collects and utilises large amounts of data compared to its competitors may effortlessly and quickly become dominant in many data-driven markets.¹⁶⁷ This observation may, however, only become of relevance concerning merger control.

In conclusion, there seems to prevail consensus between most scholars and the Commission regarding the phenomenon that access to data may pose barriers to expansion and entry. Data should, however, be considered together with network effects and multi-homing since these factors can be guiding in such an assessment. Lasserre and Mundt rightfully observed that:

Data can be a factor contributing to market power. If – and this is a crucial precondition – the access to data is important to compete on the markets, the possession of or the access to data can constitute a barrier for market entry if new entrants are unable to either collect similar

¹⁶⁵ B. Lasserre and A. Mundt, ‘Competition Law and Big Data: The Enforcers’ View’ [2017] p. 91 <https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Fachartikel/Competition_Law_and_Big_Data_The_enforcers_view.pdf?__blob=publicationFile&v=2>.

¹⁶⁶ R.A.C. Pfeiffer, ‘Digital Economy, Big Data and Competition Law’ [2019] p. 66 <<https://ssrn.com/abstract=3440296>>; Compare with Catherine Tucker, ‘The Implications of Improved Attribution and Measurability for Antitrust and Privacy in Online Advertising Markets’ [2013] pp. 1025–1034. <<https://www.semanticscholar.org/paper/The-Implications-of-Improved-Attribution-and-for-in-Tucker/63b92c912ea1b20b2c008d0576e09ae99ac1a03b>>.

¹⁶⁷ R.A.C. Pfeiffer, ‘Digital Economy, Big Data and Competition Law’ [2019] p. 67 <<https://ssrn.com/abstract=3440296>>.

data or to buy access to sources of such data as the incumbents. Of course this has to be assessed on a case-by-case basis.¹⁶⁸

The question that remains is whether the Commission and the CJEU confirm this view, but, as Sokol and Comerford observed, there are no cases from the CJEU that sufficiently clarify the role of data in competition law.¹⁶⁹ However, the Commission has addressed this question in three of its merger decisions: *Google/DoubleClick*, *Facebook/WhatsApp*, and *Microsoft/LinkedIn*.

3.4.5 Data as an ‘Other Factor’ - In Practice

Mergers may raise competition law concerns since it is an efficient way to quickly obtain large amounts of data. In the following three decisions the Commission has examined the relevance of data as an ‘other factor’.

The Commission held in its decision in *Google/DoubleClick*¹⁷⁰ that accumulating data through a merger may enable more efficient production and marketing of the services provided. The concerns mainly revolved around how the combination of the two undertakings’ databases could enhance the tracking of users’ behaviour online and how this would impact targeting possibilities. However, the Commission decided that the new accumulated data did not infringe competition law since it was sufficiently unlikely that the combination of databases would be harmful to competition. This conclusion concerned both the market for online advertising and the market for ad serving technology.¹⁷¹ However, what is clear from this decision is that the Commission considered the possibility that data can contribute to market power.

In the Commission’s decision in *Facebook/WhatsApp*¹⁷², the effects that the merger may have, resulting from increased access to data, was considered since the usage of such data may affect the commercialisation of the market. The Commission examined both the fact that WhatsApp has not gathered any user data and the

¹⁶⁸ B. Lasserre and A. Mundt, ‘Competition Law and Big Data: The Enforcers’ View’ [2017] p. 90 <https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Fachartikel/Competition_Law_and_Big_Data_The_enforcers_view.pdf?__blob=publicationFile&v=2>.

¹⁶⁹ D. Sokol and R. Comerford, ‘Antitrust and Regulating Big Data’ [2016] p. 1151 <<https://scholarship.law.ufl.edu/cgi/viewcontent.cgi?article=1817&context=facultypub>>.

¹⁷⁰ European Commission, Decision of 11 March 2008, Case M.4731, *Google/DoubleClick*.

¹⁷¹ European Commission, Decision of 11 March 2008, Case M.4731, *Google/DoubleClick*.

¹⁷² European Commission, Decision of 3 October 2014, Case M.7217, *Facebook/WhatsApp*.

hypothetical scenario where WhatsApp was to start gathering user data. The relevant markets identified were social networking services, online advertising services and consumer communication services.¹⁷³ The Commission concluded that the merger and potential collective control of relevant data would not infringe competition law on any relevant market since numerous other undertakings likewise gather extensive data. The merger was, therefore, approved by the Commission.¹⁷⁴ Even though this specific merger was not infringing competition law, it is evident that data plays an essential role in the field of competition law today.

In *Microsoft/LinkedIn*¹⁷⁵, the Commission confirmed that data can be indicative of market power in certain data-driven markets. It held that the merger might limit the availability of choice on the market and even subject barriers to entry and expansion against competitors that gather less amount of data to protect their user's privacy.¹⁷⁶ The Commission decided not to oppose the merger since the undertakings did not offer access to the data to third parties for the purpose of online advertising. Moreover, the merging of the databases could not be sufficiently confirmed to pose barriers to entry or expansion in the relevant market.¹⁷⁷

The CMA investigated whether Google and Facebook enjoy significant market power deriving from the undertakings' voluminous access to user data. It concluded that this was the case since the undertakings' extensive datasets create a significant competitive advantage within the online target advertising market.¹⁷⁸ For example, Google can offer accurately categorised targeting solutions for advertising, and Facebook specialises in target advertising on the basis of its users' interests,

¹⁷³ European Commission, Decision of 3 October 2014, Case M.7217, Facebook/WhatsApp.

¹⁷⁴ European Commission, Decision of 3 October 2014, Case M.7217, Facebook/WhatsApp, paras. 164 ff.

¹⁷⁵ European Commission, Decision of 6 December 2016, Case M.8124, Microsoft/LinkedIn.

¹⁷⁶ European Commission, Decision of 6 December 2016, Case M.8124, Microsoft/LinkedIn; “[T]he post-merger combination of the datasets of the merging parties may increase their power in the market for the supply of the data or frustrate the market entry of operators that require the data to provide their services. In order to effectively compete post-merger with the entity resulting from the merger, competitors may need to collect a larger dataset than that necessary in a counterfactual scenario where the merger was absent.” M. Giannino, ‘Microsoft/LinkedIn: What the European Commission Said on the Competition Review of Digital Market Mergers’ [2017] p. 3f <<https://ssrn.com/abstract=3005299>>.

¹⁷⁷ European Commission, Decision of 6 December 2016, Case M.8124, Microsoft/LinkedIn.

¹⁷⁸ Competition & Markets Authority, ‘Online platforms and digital advertising - Market study final report’ [2020] p. 15, para. 41.

demographics and geographic area.¹⁷⁹ The CMA claim that: “The inability of smaller platforms and publishers to access user data creates a significant barrier to entry.”¹⁸⁰

In conclusion, the Commission recognises the merge of datasets as an ‘other factor’ worth examining since it has observed that the access and utilisation of data may increase market power. Moreover, the Commission and the CMA have also noticed the potential problem that data may be a contributing factor to the emergence of barriers to entry and expansion. Therefore, data is an ‘other factor’ that should be considered in regard to certain data-driven online platforms. When assessing whether data contribute to market power, the following elements should be considered: (i) the degree of scarcity or excess of data in the market, (ii) the possibility and extent equivalent data can be gathered or reproduced, and (iii) the impact that the data collection process has on competition in the relevant market.¹⁸¹

3.4.6 Potential ‘Other Factors’

Additional ‘other factors’ are debated by scholars but have not been sufficiently supported as indicative of market power. Examples of these ‘other factors’ are (i) the number of users within a timeframe,¹⁸² (ii) the number of referrals to sellers on the online platform,¹⁸³ (iii) the degree of innovation and trends,¹⁸⁴ and (iv) the possibility for users to change between offline and online platforms.¹⁸⁵ However,

¹⁷⁹ Competition & Markets Authority, ‘Online platforms and digital advertising - Market study final report’ [2020] p. 15, para. 43.

¹⁸⁰ *ibid.*

¹⁸¹ Compare with: “[T]he Commission considered that possible post-merger combinations of data did not raise any competition concerns to the extent that there would still be, after the operation, a large amount of internet user data to draw from. These precedents help to delineate two relevant factors when considering whether data can contribute to market power: the scarcity of data (or ease to replicability) and the impact of the scale and scope of data collection on competitive performance.” B. Lasserre and A. Mundt, ‘Competition Law and Big Data: The Enforcers’ View’ [2017] p. 97

<https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Fachartikel/Competition_Law_and_Big_Data_The_enforcers_view.pdf?__blob=publicationFile&v=2>.

¹⁸² Organisation for Economic Co-Operation and Development, Directorate for Financial and Enterprise Affairs, Competition Committee, ‘Barriers to Entry’ (DAF/COMP(2005)42) 6 March 2006, p. 9.

¹⁸³ *ibid.*

¹⁸⁴ O. Batura, N. van Gorp, P. Larouche, ‘Online Platforms and the EU Digital Single Market’ [2015] p. 10f <https://ec.europa.eu/information_society/newsroom/image/document/2016-7/nikolai_van_gorp_-_response_e-economics_to_the_uk_house_of_lords_call_for_evidence_14020.pdf>.

¹⁸⁵ D. Mandrescu, ‘Applying EU Competition Law to Online Platforms: The Road Ahead’ [2017] p. 19 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3117840>.

there are little to no information on how these ‘other factors’ should be assessed in practice, and they are yet merely suggestions.

3.4.7 Summary

The connection between network effects, multi-homing and data, is evident. These three ‘other factors’ are fairly recognised as affecting the competitive structure of the market under certain circumstances, thereby having an impact on the distribution of market power. Thus, these should be considered in the dominance assessment concerning online platforms.

4. Summary and Conclusions

First and foremost, it is challenging to define the market correctly and efficiently regarding online platforms due to their unique characteristics. In turn, this may reduce market shares' evidentiality of market power. This derives from the fact that the SSNIP test is not applicable to products or services offered without a monetary fee since the lack of a price prevents its application both quantitatively and qualitatively. However, market shares can still be indicative of market power regarding online platforms if the test is modified to be a nonprice centric test. Unfortunately, this has not yet proven successful. Moreover, a large market share may not be indicative of market power since the unique characteristics of online platforms facilitate the sudden redistribution of market power. As a result, competition authorities must adapt by paying attention to new 'other factors' that have emerged in relation to online platforms. As the relevance of market shares decreases, the importance of 'other factors' increases. In this study, three of these 'other factors' are identified and analysed, namely, (i) network effects, (ii) multi-homing, and (iii) data.

Network effects arise when the users value an online service more as a result of a large or increasing number of users. Network effects often share the trait of the snowball effect and can quickly grow out of proportion. This occurrence can also be boosted and sustained through 'economies of scale'. In turn, this can provide an online platform with enormous market power within a small timeframe that can effortlessly be held or strengthened since the absence of potential competition allows it. However, network effects may be favourable to competition if the differences in market power between competitors are unsubstantial, and no considerable hindrance to competition and market entry exists. Nevertheless, network effects seem to be the root of many substantial barriers to entry and expansion on online platforms and can, therefore, be an 'other factor' contributing to market power.

Multi-homing, on the other hand, can generally be assumed to be an ‘other factor’ capable of reducing market power. The concept is somewhat comparable to countervailing buyer power. However, merely proving the existence of multi-homing is limited in how evidential it is of market power. Hence, the existence of various degrees of multi-homing must be considered. Naturally, low levels of multi-homing indicate concentrated market power as well as barriers to entry and expansion.

Undertakings’ mere possession of large amounts of quality data, and the ability to efficiently collect, process and utilise data, can contribute to market power under certain circumstances. An example of such circumstances is when data is an essential part of the business strategy, and the leading undertakings have advanced their data gathering and processing abilities to a level that is incontestable by its competitors, resulting in exclusive control over data in the market. Moreover, access to more data can facilitate the previously mentioned network effects that benefit the leading undertakings and create substantial barriers to entry and expansion. Hence, when assessing whether data is an ‘other factor’, the following elements should advisably be considered: (i) the degree of accessible data in the market, (ii) the possibility and extent to which equivalent data can be gathered or reproduced, and (iii) the impact that the data collection process has on competition in the relevant market. What can be concluded is that data as an ‘other factor’ should be given attention when considering barriers to expansion and entry under certain circumstances. However, data should be considered together with network effects and multi-homing when assessing dominance since these factors are guiding for such assessments. Characteristically for competition law, each of these ‘other factors’ impact on the allocation of market power should be determined on a case-by-case basis.

As Margarethe Vestager emphasised, the leading online platforms have tremendous power over users, businesses, the economy and even democratic choices.¹⁸⁶ This raises concerns when, in practice, it is presumably challenging to assess dominance efficiently and consistently on online platforms. It is, therefore, of utmost

¹⁸⁶ Speech by Margrethe Vestager at the European Internet Forum, 17 March 2021. <https://ec.europa.eu/commission/commissioners/2019-2024/vestager/announcements/competition-digital-age_en> accessed 13 May 2021.

importance that competition authorities consider and adapt to the challenges that online platforms pose for the dominance assessment and competition law enforcement in general. Competition law and its enforcement must be adjustable to these challenges. Although, correct application and interpretation of the provisions must persist for the sake of legal certainty. However, the provisions regulating competition law, for example Article 102 TFEU, may be insufficient to deal with the problems we are now facing. For example, the Commission proposed two new legal instruments to deal with these problems, one of which is the Digital Markets Act (DMA). The DMA specifically targets large online platforms, the so-called ‘gatekeepers’¹⁸⁷. While the objective of Articles 101 and 102 is to protect undistorted competition on the market, the objective of the DMA “[...] is to ensure that markets, where gatekeepers are present, are and remain contestable and fair, independently from the actual, likely or presumed effects of the conduct of a given gatekeeper covered by this Regulation on competition on a given market.”¹⁸⁸ In the proposal of the DMA’s explanatory memorandum, it is stated as follows:

[T]he Commission considered that Article 102 TFEU is not sufficient to deal with all the problems associated with gatekeepers, given that a gatekeeper may not necessarily be a dominant player, and its practices may not be captured by Article 102 TFEU if there is no demonstrable effect on competition within clearly defined relevant markets. Moreover, Article 102 TFEU does not always allow intervening with the speed that is necessary to address these pressing practices in the most timely and thus most effective manner.¹⁸⁹

The Commission recognises the problems arising with online platforms regarding the difficulties of efficiently addressing anticompetitive conduct on a case-by-case basis.¹⁹⁰ Maybe, as the Commission suggests, new competition law instruments and

¹⁸⁷ “‘Gatekeeper’ means a provider of core platform services designated pursuant to Article 3; ‘Core platform service’ means any of the following: (a)online intermediation services; (b)online search engines; (c)online social networking services; (d)video-sharing platform services; (e)number-independent interpersonal communication services; (f)operating systems; (g)cloud computing services; (h)advertising services, including any advertising networks, advertising exchanges and any other advertising intermediation services, provided by a provider of any of the core platform services listed in points (a) to (g);” Proposal for a Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act), *COM/2020/842 final*, Article 2 <<https://eur-lex.europa.eu/legal-content/en/TXT/?qid=1608116887159&uri=COM%3A2020%3A842%3AFIN>>.

¹⁸⁸ Proposal for a Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act), *COM/2020/842 final*, Preamble, para. 10 <<https://eur-lex.europa.eu/legal-content/en/TXT/?qid=1608116887159&uri=COM%3A2020%3A842%3AFIN>>.

¹⁸⁹ Proposal for a Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act), *COM/2020/842 final*, Explanatory Memorandum <<https://eur-lex.europa.eu/legal-content/en/TXT/?qid=1608116887159&uri=COM%3A2020%3A842%3AFIN>>.

¹⁹⁰ “Whereas Articles 101 and 102 TFEU remain applicable to the conduct of gatekeepers, their scope is limited to certain instances of market power (e.g. dominance on specific markets) and of anti-competitive behaviour, while enforcement occurs ex post and requires an extensive investigation of often very complex

tools are called for to efficiently confront the challenges resulting from the unique characteristics of online platforms and data. However, this gives rise to new questions for future research: Will the interplay between Article 102 and the DMA work efficiently in practice? Will the potential adoption of the DMA lead to overregulating the market? Can the DMA be enforced in accordance with legal certainty?

facts on a case by case basis. Moreover, existing Union law does not address, or does not address effectively, the identified challenges to the well-functioning of the internal market posed by the conduct of gatekeepers,” Proposal for a Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act), *COM/2020/842 final*, Preamble, para. 5 <<https://eur-lex.europa.eu/legal-content/en/TXT/?qid=1608116887159&uri=COM%3A2020%3A842%3AFIN>>.

Bibliography

Official Publications

European Union

European Commission, ‘Communication from the Commission - Guidance on the Commission’s enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings’, OJ C 45, 24.2.2009, p. 7–20. Available at: <<https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52009XC0224%2801%29>>

European Commission, ‘Commission Notice on the definition of relevant market for the purposes of Community competition law’, OJ C 372, 9.12.1997, p. 5–13. Available at: <<https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex%3A31997Y1209%2801%29>>

European Commission, ‘Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings’, OJ C 031, 5.2.2004, p. 5–18. Available at: <<https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52004XC0205%2802%29>>

European Commission, ‘A Digital Single Market Strategy for Europe - Analysis and Evidence’, COM(2015) 192, p 52. Available at: <<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52015SC0100>>

European Commission, ‘Towards a Thriving Data-Driven Economy’, COM (2014) 442, July 2, 2014, 2. Available at: <<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52014DC0442>>.

ICN

International Competition Network, ‘Recommended Practices for Merger Analysis’ [2018]. Available at: <https://www.internationalcompetitionnetwork.org/wp-content/uploads/2018/05/MWG_RPsforMergerAnalysis.pdf>

OECD

Organisation for Economic Co-Operation and Development, Directorate for Financial and Enterprise Affairs, Competition Committee, ‘Barriers to Entry’ (DAF/COMP(2005)42) 6 March 2006. Available at: <<https://www.oecd.org/daf/competition/cartels/36344429.pdf>>

CMA

Office of Fair Trading (nowadays replaced by the Competition & Market Authority), ‘Assessment of market power - Understanding competition law’ [2004] Available at:
<https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/284400/oft415.pdf>

Competition & Markets Authority, ‘Online platforms and digital advertising - Market study final report’ [2020] Available at:
<https://assets.publishing.service.gov.uk/media/5efc57ed3a6f4023d242ed56/Final_report_1_July_2020_.pdf>

Doctrine

Literature

Jörgen Hettne and Ida Otken Eriksson, *EU-rättslig metod - Teori och genomslag i svensk rättslämning* [2011] 2nd Ed., Norstedts Juridik, Stockholm.

Maria Nääv and Mauro Zamboni, *Juridisk metodlära* [2018] 2nd Ed., Studentlitteratur AB, Lund.

Jean Tirole (translated by Steven Rendall), *Economics for the Common Goods* [2017] 1st Ed., Princeton University Press, Princeton.

Richard Whish and David Bailey, *Competition Law* [2019] 9th Ed., Oxford University Press, Butterworths.

Journals

Mark Armstrong, ‘Competition in Two-Sided Markets’ [2006] *The RAND Journal of Economics*, Vol. 37, Nr. 3, pp. 668–691. Available at:
<<http://www.jstor.org/stable/25046266>>

Dirk Auer and Nicolas Petit, ‘Two-Sided Markets and the Challenge of Turning Economic Theory into Antitrust Policy’ [2015] *The Antitrust Bulletin* Vol. 60(4), 426, p. 443. Available at:
<https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2552337>

Xavier Boutin and Georg Clemens, ‘Defining ‘Big Data’ in Antitrust’ [2017] *Competition Policy International: Antitrust Chronicle* 2017, Summer 2017, Volume 1, Number 2, pp. 22–28. Available at: <<https://ssrn.com/abstract=2938397>>

David S. Evans, ‘The Antitrust Economics of Multi-Sided Platform Markets’ [2003] *Yale Journal on Regulation* Vol. 20(2), 325, p. 340. Available at:
<<https://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=1144&context=yjreg>>

David S. Evans and Richard Schmalensee, 'The Antitrust Analysis of Multi-Sided Platform Businesses' [2014] *The Oxford Handbook of International Antitrust Economics* Vol.1, pp. 21–23. Available at:

<https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2185373>

David S. Evans and Richard Schmalensee, 'The Industrial Organisation of Markets with Two-Sided Platforms' [2007] *Competition Policy International*, pp. 151–179, Vol. 3, Nr. 1, 2007. Available at: <<https://ssrn.com/abstract=987341>>

Lapo Filistrucchi, Damien Geradin, Eric van Damme and Pauline Affeldt, 'Market Definition in Two-Sided Markets: Theory and Practice' [2014] *Journal of Competition Law & Economics* Vol. 10(2), p. 293. Available at:

<https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2240850>

Damien Geradin, Paul Hofer, Frédéric Louis, Nicolas Petit and Mike Walker, 'The Concept of Dominance in EC Competition Law' [2005] Available at:

<<https://ssrn.com/abstract=770144>>

Damien Geradin and Monika Kuschewsky, 'Competition law and personal data: preliminary thoughts on a complex issue' [2013] Available at:

<<http://papers.ssrn.com/sol3/papers.cfm?abstractid=2216088>>

Michele Giannino, 'Microsoft/LinkedIn: What the European Commission Said on the Competition Review of Digital Market Mergers' [2017] *Competition Policy International: Antitrust Chronicle* 2017, Summer 2017, Volume 1, Number 2, pp. 22–28. Available at: <<https://ssrn.com/abstract=3005299>>

Inge Graef, 'Market Definition and Market Power in Data: The Case of Online Platforms' [2015]. *World Competition: Law and Economics Review*, Vol. 38, No. 4, pp. 473–506. Available at: <<https://ssrn.com/abstract=2657732>>

Marios Iacovides and Jakob Jeanrond, 'Overcoming Methodological Challenges in the Application of Competition Law to Digital Platforms – a Swedish perspective' [2018] *Journal of Antitrust Enforcement* Vol. 6(3), 437, p. 453.

Available at:

<<https://academic.oup.com/antitrust/article/6/3/437/4990330?login=true>>

Bruno Lasserre and Andreas Mundt, 'Competition Law and Big Data: The Enforcers' View' [2017] *Italian Antitrust Review* Vol 4, No 1 (2017) pp. 87–103.

Available at: <<http://a-p-p-review.com/article/view/12607>>

Daniel Mandrescu, 'Applying EU Competition Law to Online Platforms: The Road Ahead' [2017] *European Competition Law Review* 38(8), 353. Available at:

<https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3117840>

Daniel Mandrescu, 'The SSNIP Test and Zero-Pricing Strategies: Considerations for Online Platforms' [2018]. *European Competition and Regulatory Law Review*, Volume 2 (2018), Issue 4, p. 244, Available at: <<https://ssrn.com/abstract=3337765>>

Roberto Augusto Castellanos Pfeiffer, Digital Economy, 'Big Data and Competition Law' [2019] *Market and Competition Law Review*, Volume III, n. 1, April 2019. Available at: <<https://ssrn.com/abstract=3440296>>

Rupprecht Podszun and Stephan Kreifels, 'Digital Platforms and Competition Law' [2016] Vol. 5(1), pp. 33–39. Available at: <<https://kluwerlawonline.com/journalarticle/Journal+of+European+Consumer+and+Market+Law/5.1/EuCML2016008>>

Miguel P.L. Rato and Nicolas Petit, 'Abuse of Dominance in Technology-Enabled Markets: Established Standards Reconsidered?' [2014] *European Competition Journal*, April 2013. Available at: <<https://ssrn.com/abstract=2387357>>

Nils-Peter Schepp and Achim Wambach, 'On Big Data and Its Relevance for Market Power Assessment' [2016] *Journal of European Competition Law & Practice*, Volume 7, Issue 2, February 2016, pp. 120–124. Available at: <<https://doi.org/10.1093/jeclap/lpv091>>

Richard Schmalensee and David S. Evans, 'Industrial Organization of Markets with Two-Sided Platforms' [2007] *Competition Policy International*, Vol. 3, No. 1, Spring 2007. Available at: <<https://ssrn.com/abstract=987341>>

Daniel Sokol and Roisin Comerford, 'Antitrust and Regulating Big Data' [2016] *George Mason Law Review* 23, no. 5, pp. 1129–1162. Available at: <<https://scholarship.law.ufl.edu/cgi/viewcontent.cgi?article=1817&context=faculty>>

Catherine Tucker, 'The Implications of Improved Attribution and Measurability for Antitrust and Privacy in Online Advertising Markets' [2013] *George Mason Law Review* 20 no. 4, pp. 1025–1034. Available at: <<https://www.semanticscholar.org/paper/The-Implications-of-Improved-Attribution-and-for-in-Tucker/63b92c912ea1b20b2c008d0576e09ae99ac1a03b>>

Online sources

Olga Batura, Nicolai van Gorp, Prof. Pierre Larouche, 'Online Platforms and the EU Digital Single Market' [2015] Available at: <https://ec.europa.eu/information_society/newsroom/image/document/2016-7/nikolai_van_gorp_-_response_economics_to_the_uk_house_of_lords_call_for_evidence_14020.pdf>

The European Commission, 'Procedures in Article 102 Investigations'. Available at: <https://ec.europa.eu/competition-policy/antitrust/procedures/article-102-investigations_en>

The European Union, 'Court of Justice of the European Union (CJEU)'. Available at: <https://europa.eu/european-union/about-eu/institutions-bodies/court-justice_en>

Speech by Margrethe Vestager at the European Internet Forum, 17 March 2021. Available at: <https://ec.europa.eu/commission/commissioners/2019-2024/vestager/announcements/competition-digital-age_en>

European Data Protection Supervisor Press Release EDPS/2014/06, Privacy and Competitiveness in the Age of Big Data [2014]. Available at: <https://ec.europa.eu/commission/presscorner/detail/en/EDPS_14_6>

Cases

European Union

Court of Justice of the European Union

Case 26/62, *Van Gend en Loos* [1963] ECLI:EU:C:1963:1

Case 6/72, *Europemballage Corporation and Continental Can Company Inc. v. Commission* [1973] ECLI:EU:C:1973:22

Case 27/76, *United Brands v. Commission* [1978] ECLI:EU:C:1978:22

Case 85/76, *Hoffmann La Roche v. Commission* [1979] ECLI:EU:C:1979:36

Case 322/81, *Michelin v. Commission* [1983] ECLI:EU:C:1983:313

Case C-396/96, *Compagnie Maritime Belge Transports v. Commission* [2000] ECLI:EU:C:2000:132

General Court

Case T-30/89 *Hilti AG v. Commission* [1991] ECLI:EU:T:1991:70

Case T-65/98, *Van den Bergh Foods v. Commission* [2003] ECLI:EU:T:2003:281

Case T-340/03 *France Télécom v. Commission* [2007] ECLI:EU:T:2007:22.

Case T-79/12 *Cisco Systems and Messagenet v. Commission* [2013] ECLI:EU:T:2013:635.

European Commission

European Commission, M.1365, FCC/Vivendi, 4th March 1999.

European Commission, M.1672, Volvo/Scania, 14th March 2000.

European Commission, JV 55, Hutchison/RCPM/ECT, 3rd July 2001.

European Commission, M.4731, Google/DoubleClick, 11th March 2008.

European Commission, M.4854, TomTom/Tele-Atlas, 14th May 2008.

European Commission, M.6281, Microsoft/Skype, 7th October 2011.

European Commission, M.7217, Facebook/WhatsApp, 3rd October 2014.

European Commission, M.8124, Microsoft/LinkedIn, 6th December 2016.