

A critical account of the EU
Competition Commission's approach
to investigations of free high
technology companies: towards a new
standard

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Law

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Declaration: I confirm that this is my own work and the use of all material from other sources has been properly and fully acknowledged.

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ABSTRACT

Large free high technology (FHT) companies such as search engines can bring immense benefit to consumers. Only the largest FHT company is likely to be able to maximize innovation. Beyond this, any further innovation can only be brought by completely new and disruptive technologies that replace the product of the incumbent.

However, whilst consumer welfare is purportedly the main objective of EU competition law, it presumes that more competition creates increased consumer benefit. This thesis explores this conflict by analysing how it manifests in a limited and uncertain approach on the part of the EU Commission. It then proposes a test that resolves the problems of the approach.

First, the thesis explores the tension between FHT economics and the presumptions of competition law.

Next, it evaluates the EU Commission's approach to analysing FHT markets against literature and its conflicting approach in other technology cases. We conclude that the EU Commission's proclamation that FHT markets are competitive is based on a limited approach that does not give due consideration to factors such as network effects.

Subsequently, based on the above evaluation, the thesis hypothesizes that the EU Commission's true belief is that dominant FHT companies are good for consumers even with reduced competition. However, the EU Commission can justify dominant company

expansion only by showing that there is enough competition in the market; this is required by the analytical framework of competition law investigations. The EU Commission therefore ends up stating rationale based on limited reasoning.

Finally, a test based on *Magill* and innovation markets, which focuses analysis on competing innovation projects in the market instead of the current relevant market, is proposed. This way the EU Commission bypasses arguments regarding network effects and simply focuses on making sure that there is a sufficient level of competition in the innovation market which ensures future innovation.

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CHAPTER 1- INTRODUCTION

The EU Commission has now investigated a number of free high technology cases involving search engines and social networks. However, the developing body of Commission decisions seemingly reflects an inconsistency in methods of justification and principles. A stand out example is where two high technology companies both with massive market shares and likely massive market power are approached in very different ways. We see this stark difference especially in the way the EU Commission dealt with the *Microsoft*¹ tying decisions where it declared that there was a significant reduction in competition which needed to be remedied; whilst in some of the latest technology cases such as *Facebook/Whatsapp*,² the EU Commission was not concerned with the level of competition in the market post-merger. All these companies are the largest players³ in their respective markets and hence, the difference in treatment is not clearly explicable at first. These cases will be expanded on and will heavily feature in Chapters 3 and 4.

In summary, this thesis evaluates the analysis of the EU Commission in investigations concerning free high technologies, explores the inconsistencies in analyses, hypothesizes about the reason behind the inconsistencies and particular type of analyses, and proposes a new appropriate competition law test suited to such investigations. The evaluation of analysis

¹ *Microsoft* (Case COMP/C-3/37.792)[2004] at http://ec.europa.eu/competition/antitrust/cases/dec_docs/37792/37792_4177_1.pdf accessed on 4th February 2015

² *Facebook/Whatsapp* (Case No COMP/M.7217) [2014] available at http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf accessed on 23rd July 2017

³ Also note other free high technology companies like Google which will especially be discussed in Chapter 4. Google has at least 90% market share in Europe. In some of the biggest European economies such as Spain and France, it appears to be 95%. See Matt Rosoff 'Here's exactly how dominant Google is in Europe in search, smartphones, and browsers' (*Business Insider UK*, 20 April 2016) <<http://uk.businessinsider.com/google-europe-market-share-search-smartphones-browsers-2016-4>> accessed on 26th May 2017

and discovery of inconsistencies displays the problem of both limited and inconsistent reasoning by the EU Commission.

1.1 Clarifying what we mean by free high technology

These are technology services/products delivered via the internet that have no monetary cost to the user of the technology. They are ‘zero-price services’⁴ and most are funded by advertising revenue. Prime examples are general search engines, social networks and many communication applications on phones and other devices. These are very advanced electronic technology services that are subject to regular innovations and are therefore ‘high’ technologies. Whilst it is common knowledge that search engines and social networks rely heavily on advertising revenue, zero-price communication applications do not always have the same source of funding.⁵

Of course, it is acknowledged that there is growing literature⁶ to state that such technologies are labelled free (due to the lack of monetary cost), but in reality they are not as consumers pay for the services in the form of data. Such technologies gather a large amount of information, a lot of which is personal to the user; only in exchange for this information are

⁴ G Colangelo & M Maggolino ‘Data Protection in Attention Markets: Protecting Privacy through Competition?’ (2017) 8(6) JECL&Pract 363

⁵ See for example Zaw Thiha Tun ‘How viber makes money’ (*Investopedia*, 12 June 2015) available at <http://www.investopedia.com/articles/investing/061215/how-viber-makes-money.asp> accessed on 27th July 2017- Viber does not make any money off advertising. Although it may have some revenue from selling ‘emoticons’ for example, it does not make money from advertising to its users.

⁶ See for example, Stucke M & A Grunes *Big Data and Competition Policy* (OUP Oxford 2016). Further literature will be discussed in Chapter 2.

the users able to use the services.⁷ The issue of data as a potential currency and cost will be discussed within the context of this thesis especially in Chapter 2.⁸ However, purely for definitional purposes we will still refer to these technologies as ‘free high technologies’.

Going back to ascertaining the definition of free high technologies, there is no monetary cost for the ultimate benefit the user seeks to derive from the technology. This is to distinguish, for instance, services such as online shopping sites from search engines being used simply to find information. On online shopping sites the user is ultimately there to look for a good on the site to purchase for a monetary price. This can be compared to, for example, a shopper walking into a supermarket for free and then comparing prices and quality for free, but ultimately with the intention of purchasing something. Hence, a site like Amazon would not be considered a free high technology for the purposes of this thesis.

It must be acknowledged however, that there could be a considerable portion of consumers who use sites like price comparison websites to carry out research but then directly purchase from the producer rather than via the comparison website.⁹ It could be argued that it is also a free high technology given that there is a significant portion of consumers using it as a free research tool. However, the problem with that logic is that it can be stretched to cover typical brick and mortar businesses that retail offline. For example, a shopper may walk into one store, look at a price and then go into the next store to do a comparison. Do we then consider that the open display of prices in each store is a free service with its own relevant market? It

⁷ See for example, Peter Hustinx ‘Preliminary Opinion of the European Data Protection Supervisor; Privacy and competitiveness in the age of big data: the interplay between data protection, competition law and consumer protection in the Digital Economy’ (March 2014) page 6 available at https://edps.europa.eu/sites/edp/files/publication/14-03-26_competition_law_big_data_en.pdf accessed on 27th July 2017

⁸ See section 2.2.5

⁹ UK Regulators Network ‘Price Comparison Websites’ (Final Report , 27th September 2016) page 16

may be, but that is not the main purpose of displaying the price. It is to hopefully attract the shopper and make a sale. Sites such as search engines and social networks operate differently. Therefore price comparison websites are not considered as free high technologies.

A user may visit a social networking site and seek to view social photos and videos of his/her connections for free. The user does not expect to pay for that benefit. Both the service and the ultimate benefit derived/expected are free of charge. Hence, a social network is a free high technology.

Finally, all free high technology services discussed in this thesis are known as two-sided markets.¹⁰ This means that they deal with at least two groups of different customers and aid transactions between the two groups. A simple example would be a search engine that links searchers more effectively with online content publishers. The literature on two-sided markets will be thoroughly discussed in Chapter 2.¹¹

1.2 Justifying and addressing our hypothesis

The formulation of our hypothesis entails two fundamental elements.

First, is an understanding of the foundations of competition law within the specific context of free high technologies. This in turn can be broken down into three further sub-elements all of which are explored in Chapter 2 in the following order;

- a) The economics of free high technology (see section 2.2 especially)- we conclude here that increasingly large dominant companies are likely to be good for consumer

¹⁰ See for example L Filistrucchi, D Geradin, E van Damme & P Affeld 'Market Definition in two-sided markets: theory and practice' (2014) 10(2) JCL & E 293

¹¹ See section 2.2

welfare for several reasons including a greater ability to match users with what they need and the motivation to attract a large number of users who are not financially tied to any dominant company's service as they do not pay.

- b) The objective(s) and assumption(s) of EU Competition law- we found from relevant doctrine that, whilst competition was a very important objective, consumer welfare is to take priority. We also found that there was a well-established assumption that more competition means higher consumer welfare.
- c) The objective to be pursued in free high technology cases-- we concluded that consumer welfare is to be pursued as the main objective .

Second, is an analysis of the inconsistencies and limitations in the EU Commission's approach to the relevant market and market power in free high technology investigations. This takes place in Chapters 3 and 4. We observe that there are clear limitations and inconsistencies in one of the main two free high technology cases (*Facebook/Whatsapp*) in terms of the ways the market is defined in Chapter 3. In Chapter 4 we not only observe limitations in the approach to two main aspects of market power in free high technologies (network effects and market share) but also clear inconsistencies in the approach to those factors in comparison to other cases, especially with reference to the *Microsoft* interoperability case. For example, in free high technology cases network effects are not considered strong and market share is considered temporary when there is evidence to the contrary.¹²

¹² See paraphrased Comment by Andreas Mundt, President of German Bundeskartellamt, at Conference entitled 'Online Markets and Offline Welfare Effects- The Internet, Competition, Society and Democracy' (22 May 2017, Pembroke College, Oxford)- the last time a large online dominant platform was taken over by a smaller one was in 2004 when Facebook took over from MySpace. It appears since then, high market shares for most large platforms have remained stable.

These inconsistencies mean that there is a problem of legal uncertainty¹³ that can lead to negative consequences such as companies not knowing whether a particular business practice is illegal and an under-deterrence of socially detrimental actions.¹⁴ For example, we will observe that the EU Commission has allowed large free high technology companies with massive market share to increase their market share even further and increase the likelihood of reducing competition in the market.¹⁵ However, this is anomalous as European Union (EU) competition law is there to protect society from the effects of abuses of market power and significant reductions in effective competition.¹⁶ Conventionally, it is known to be highly attuned to and suspicious of any potential increases in a company's market power. It is therefore quite a surprise that recently the EU Commission has been arguably lenient towards a number of high technology mergers between dominant companies and dominant high technology companies' unilateral actions that increase their market shares significantly.¹⁷ In terms of the problem of under-deterrence, it could mean that companies across all industries wrongly construe this as a sign that they can engage in otherwise anti-competitive conduct and can get away with it.¹⁸

¹³ A definition of legal uncertainty is as follows: 'the situation that obtains when the rule that is relevant to a given act or transaction is said by informed attorneys to have an expected official outcome at or near the 0.5 level of predictability.' (Anthony D'Amato 'Legal Uncertainty' (1983) 71 Cal. L. Rev. 1)

¹⁴ Matthias Lang 'Legal Uncertainty – an Effective Deterrent in Competition Law' (February 2012) available at <file:///C:/Users/Adnan/Downloads/paper-lang-2012.pdf> accessed on 18 November 2017

¹⁵ We will see this in cases such as *Facebook/Whatsapp* and *Microsoft Skype*. See *Facebook/Whatsapp* (Case No COMP/M.7217) [2014] available at http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf accessed on 23rd July 2017

& *Microsoft/ Skype* (Case No COMP/M.6281) [2011] at http://ec.europa.eu/competition/mergers/cases/decisions/m6281_924_2.pdf accessed on 5th February 2015

¹⁶ European Commission 'Competition: making markets work better' available at http://ec.europa.eu/competition/general/overview_en.html accessed on 10th September 2017

¹⁷ See for example M Bergman, M. Jakobsson & C. Razo 'An Econometric Analysis of the European Commission's Merger Decisions' (2003) 23(9-10) INT J IND ORGAN 717-738; the authors conclude from an evaluation of 96 cases that the likelihood a merger is blocked grows as market share grows.

¹⁸ For more about deterrence see P Buccirosi, L Ciari, T Duso, G Spagnolo & C Vital 'Deterrence in competition law' (Governance and the Efficiency of Economic Systems, Discussion paper No. 258, October 2009) available at <http://www.sfbtr15.de/uploads/media/285.pdf> accessed on 10th September 2017

Once we highlight the inconsistencies and limited approach, we consider them in conjunction with the information in Chapter 2; the economics of free high technologies and the assumption and objective of EU Competition law. We come up with the following hypothesis:

The EU Commission is, in actuality, of the opinion that a free high technology company having increased market power can be good for consumer welfare. Given that consumer welfare is the main objective of competition policy, the EU Commission is inclined to allow such consumer-welfare enhancing free high technology companies to continue with unilateral actions and mergers that would otherwise be anti-competitive. However, given the current analytical framework of competition law investigations, in order to allow these companies to engage in these practices, the EU Commission needs to show that there is no and will not be reduced competition in the market. The EU Commission shows this, but in doing so, it puts forward limited and inconsistent substantive arguments causing legal uncertainty. It presents the market to be very competitive when in reality it is unlikely to be.

In Chapter 5, we finally propose a test that remedies the legal uncertainty caused by the EU Commission's approach, which is highly likely to be simultaneously congruent with its actual opinion on free high technologies and consumer welfare. The test is formulated by combining the concept of 'innovation market' with the *Magill* test. It is a test specifically assigned for free high technology investigations and probes the level of competition in the innovation market as opposed to the current product market. This, as will be seen in Chapter 5, will allow the EU Commission to avoid addressing network effects and market share, which are mainly relevant to the current product market; thereby the EU Commission would no longer

have to present limited and inconsistent arguments on these issues. At the same time, the test allows a higher chance for large dominant free high technology companies to pass the test; this is because such innovation markets tend to be highly competitive due to low capital requirements and barriers to entry.

However, the current product market is also considered, but the test is satisfied so long as there is, in effect, at least one other competitor in the market. However, to satisfy the innovation market aspect of the test, there must be less than a significant reduction in competition. Therefore, the test remains in essence, a traditional competition law test in that the level of competition in the market plays a central role.

1.3 Background and gaps in the literature

We are now in an era of the new economy where digital platforms play a very important role in our lives. We search for necessary information on various internet platforms, share photos and videos with friends and at times with public audiences on social networks, purchase goods from massive online retailers and can use phone applications to order services. The list can go on. Prices for a lot of these valuable services are low and in some cases non-existent. Instead, consumers are more concerned with and desire better technological progress and more innovative products/services, which is something that these new economy companies have delivered. High technology companies such as Alphabet (owner of Google), Facebook, Amazon, Microsoft and Apple are amongst the top ten most valuable companies in the Fortune 500.¹⁹ At the least, this is some indication that these companies hold significant

¹⁹ Stephen Gandel 'These are the 10 most valuable companies in the Fortune 500' (*Fortune Finance* 4 February 2016) available at < <http://fortune.com/2016/02/04/most-valuable-companies-fortune-500-apple/>> accessed on 6th August 2017

market power in their respective main relevant markets whilst delivering high quality products and services for very low prices.

Although high concentration is not on its own illegal, it is definitely a concern for competition authorities like the EU Commission that prompts further investigation.²⁰ The EU Commission has paradoxically allowed some mergers (without imposing further conditions) and unilateral actions that have the strong potential to give free high technology companies even more market power. We will expand on this in Chapters 3 and 4 especially in the context of *Facebook/Whatsapp*²¹ and *Microsoft/Skype*.²² Of course, some of the literature²³ has disagreed with this approach of the EU Commission and one of the ways it has done this is by expressing its views on network effects²⁴ (which as we will observe are one of the main characteristics of free high technology platforms) as a factor that consolidates market power.

The literature that criticizes any increase in the size of high technologies emphasizes that network effects can prevent competitors from entering the market successfully.²⁵ Take a social network with a great number of users as an example. If an individual were to decide to

²⁰ G Williams, A Lindsay & E Lecchi 'Power and Reach in European Antitrust Cases' (2003) 12 ECLR 673- market share is an important determinant of EU Competition Commission cases

²¹ *Facebook/Whatsapp* (Case No COMP/M.7217) [2014] available at http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf accessed on 23rd July 2017

²² *Microsoft/ Skype* (Case No COMP/M.6281) [2011] at http://ec.europa.eu/competition/mergers/cases/decisions/m6281_924_2.pdf accessed on 5th February 2015

²³ See for example Melamed A & A. Douglas 'Network Industries and Antitrust' (1999) 23(1) Harv JL & Pub Pol'y 147. More literature will be discussed in Chapter 3.

²⁴ These are effects that are a result of a service becoming more valuable to a user the more users utilize it.

²⁵ See Maurice E Stucke & Ariel Ezrachi 'When Competition fails to optimize quality: A look at search engines' (2016) 18 Yale JL Tech 70, Pamela Jones Harbour & Tara Isa Koslov '*Section 2 in a Web 2.0 World: An Expanded Vision of Relevant Product Markets*' (2010) 76 Antitrust L.J. 769, 784, C Argenton, & J Pruffer 'Search Engine Competition with Network Externalities' (2012) 8(1) JECL & Pract 73, S Wismer, C Bongard & A Rasek 'Multi-Sided Market Economics in Competition Law Enforcement' (2017) 8(4) JECL & Pract 257

consider leaving a network, the fact that most of his/her friends and acquaintances are on the network would prevent him/her from leaving.²⁶ A search engine may benefit from network effects in a different manner. If a large search engine has many people using it, it becomes more valuable; it has more data from consumers to detect the range of information that both specific individuals and most people in general are looking for.²⁷ It is therefore able to provide better search results than competing search engines which do not have the same amount of data.²⁸ These factors enable free high technology digital platforms to raise barriers and prevent entry from competitors and therefore any merger or unilateral action is likely to reduce competition. In this sense the literature can be seen as critical of the EU Commission's decisions in allowing free high technology mergers and unilateral actions without sufficient consideration of network effects in its analyses.

Recently the literature however has turned to an even more specific characteristic of free high technology companies; that is the debate surrounding big data.²⁹ It is looked at from two different angles. One view is that it is considered as a precious resource that allows large free high technology companies to have a competitive advantage over smaller competitors. That data can provide the ability to provide a better quality and customised service.³⁰ In that sense again, the big data literature would likely disagree with the EU Commission's relaxed attitude towards free high technology companies in terms of its analysis of network effects.³¹

²⁶ Ibid See Stucke & Ezechia

²⁷ Ibid

²⁸ Ibid

²⁹For examples see N Schepp & A Wambach 'On Big Data and Its Relevance for Market Power Assessment' (2016) 7(2) JECL & Pract 120, D Sokol & R Comerford 'Antitrust and Regulating Big Data' (2016) 23 Geo Mason L Rev 1129, Tim Cowen 'Big Data as a competition issue: Should the EU Commission's approach be more careful?' (2016) ENLR 14

³⁰ See for example sections 2.2.2 and 2.2.3

³¹ The more people use a service, the more data collected which in turn allows the incumbent to provide a better service. In this sense big data leads to network effects.

The other view is that the collection of large amounts of data also poses privacy risks for consumers. When free high technology companies take unilateral actions or merge, they end up collecting more personal information on users and adversely affecting our sense of security regarding our private information.³² We will see that whilst the privacy issue is an important one, it is quite unclear as to how it is a competition law issue within the specific context of free high technologies. Equally important is the fact that the actual negative effect on consumers from collecting large amounts of data on them is not well defined and explained.³³

Hence, we see that the literature³⁴ has focused on network effects and big data issues in a way that could be seen as critical of the analysis of the EU Commission. This thesis does something similar. It does engage in a critical evaluation of the EU Commission's substantive analysis as well, but takes a few steps further. It considers a wide range of high technology cases including free high technology ones, compares them, discovers inconsistencies and puts forward a justified hypothesis on the EU Commission's actual agenda and intentions behind its limited approach. There is a gap in the literature about what can be read between the lines in the EU Commission's analyses. As will be explained, inferring from the limitations and inconsistencies in analysis, the EU Commission in actuality believes that free high technologies are good for consumers but carries out a limited analysis to justify mergers and unilateral actions that would reduce competition in the market.

³² See section 2.2.5

³³ Nir Kshetri 'Big data's impact on privacy, security and consumer welfare' (2014) 38 Telecommunications Policy 1134

³⁴ See for example, Zhang S 'How have network effects affected the European Commission's enforcement of competition law in technology enabled markets?' (2015) 36(2) ECLR 82

This is an important inference and can have broader implications. One of the main implications is our understanding of the objectives of competition law. There has been an ongoing debate about whether consumer welfare is in fact the main objective of competition law. This thesis' hypothesis reveals that the EU Commission is, in essence, willing to allow a reduction in competition as long as consumers are provided with high quality and low prices by the incumbent. Hence, the free high technology investigations appear to confirm that consumer welfare is in fact the main objective of competition policy in the EU.

Another implication is for future research. For those in the field who are anxious about free high technology companies becoming larger due to the EU Commission's limited focus on network effects and big data, the findings of this thesis will help redirect future research aimed at limiting the power of big data monopolies in the correct way. This thesis shows that the EU Commission is not in reality concerned with factors such as big data and network effects that are likely to reduce competition in the market. Hence, the current literature on network effects and big data as a factor providing a competitive advantage is unlikely to persuade the EU Commission to change its analysis. The EU Commission is instead a proponent of the notion that free high technologies are good for consumers because they are innovative,³⁵ but mainly because they are free. Hence, research must fundamentally be redirected towards questioning whether these technologies from large companies are in fact free. As discussed in terms of privacy issues and as we will see in Chapter 2, there is definitely literature that states that these services are not in reality free and do have a cost.

³⁵ Of course there are various other industries which are very innovative as well. But the zero-price of free high technologies is indubitably an additional contributor towards consumer welfare.

However, whilst the theory of invasion of privacy as a cost is clearly explained, there is very little solid evidence to support these claims in a competition law context. When a user of a search engine or social network gives up personal information in exchange for information, exactly how does he or she lose out? Yes, there is a fear of personal information getting into the wrong hands, but there are data protection laws that ensure companies keep the information confidential. How is it a competition law issue? If privacy is such a cost, why do users continue to give up their personal information?³⁶ Future research therefore needs to focus on answering these questions and explaining exactly how consumers are harmed when more information on them is collected by a single large entity. That would be one of the few effective ways in which to convince the EU Commission to change its analysis.

The final part of the thesis formulates a test suited to free high technologies. The literature³⁷ has attempted to suggest a more direct test or framework for competition cases where there is doubt whether competition can occasion consumer welfare. There have been suggestions to assess harm to consumers directly with more solid evidence and without making assumptions on market structure. Some have suggested scrapping market definition exercises all together and simply focus on elasticity of demand.³⁸ These suggestions have especially come through given the new economic approach of the EU Commission. However, there has been no significant change in the way the EU Commission analyses cases.

³⁶ For example, DuckDuckGo is popularly known to be a search engine that does not collect any data. However, Google search retains the lead in search queries by miles.

³⁷ See for example, Keith Waehrer 'Online Services and the Analysis of Competitive Merger effects in Privacy Protections and Other Quality Dimensions' Draft, 12 January 2016 <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.726.2142&rep=rep1&type=pdf> accessed on 27 March 2017

³⁸ See Louis Kaplow 'Market Definition: Impossible and Counterproductive' (2013) 79 Antitrust LJ 361

The framework for analysis remains the same in the sense that the market must be defined and the level of competition in the market must be considered. Whilst in the specific case of free high technologies there have been suggestions on adjusted methods of analysis (Inge Graef and former Commissioner Harbour of the FTC who suggested to see data as the new market),³⁹ there is no suggestion as to how to formulate a test that incorporates the notion that dominant free high technology companies with increasing market share are likely to be good for consumers while at the same time remaining in essence a competition law test. What is meant by this is that the test still largely possesses an element of analysing competition and therefore remains a competition law test in character. The test put forward in this thesis does exactly this.

As we will see in Chapter 5, based on the idea of innovation markets and the *Magill* consumer harm test, we can formulate a test that, simply by shifting the main market for analysis from the current product market to the innovation market, genuinely shows that free high technology markets are under competitive pressure when it comes to innovation. This, however, does not change the fact that they are dominant in current service/product markets. By considering the innovation market only in the special case of free high technologies, the EU Commission can convincingly show a competitive market without having to re-adjust its arguments to show a competitive one in the current market. At the same time the test also

³⁹ Graef I *EU Competition Law, Data Protection and Online Platforms: Data as Essential Facility* (Wolters Kluwer 2016), Harbour P & T Isa Koslov 'Section 2 in a Web 2.0 World : An expanded vision of relevant product markets' [2010] 76 Antitrust LJ 769

makes it conditional on ensuring that competition is not completely eliminated in the current product market.

The existence of such a test is good for legal certainty as it clarifies to those in the industry that it is only when it comes to free services and products that the competition authorities will be more lenient and consider the more likely wider market for innovation.

1.4 Methodology

The core research methodology applied in this thesis is doctrinal in that our core approach involves understanding various guiding legal objectives and principles, case law and EU Commission investigations; all this doctrine is then analysed holistically and evaluated in terms of consistency and possible limitations in application of principles and legal tests on the part of the EU Commission. Within this doctrinal research framework, positivist, descriptive, normative and critical methodologies are required and used depending on which aspect of the thesis is being considered. For example, in evaluating the EU Commission's approach in Chapter 4, the authority's rationale is benchmarked against both legal and economic literature. In this sense there is a critical methodological element.

It should be noted at this point however, that although the doctrinal approach is our core overarching methodology in that it is prevalent throughout, there is one instance where a guiding principle is criticised under an interdisciplinary approach. In Chapter 2 we use

economic literature⁴⁰ specifically on two-sided markets to critically evaluate a guiding principle in competition law that presumes competition is the instrument through which to achieve consumer welfare. We will discuss this further below when summarising our methodologies chapter by chapter.

The core legal doctrinal approach has been chosen as most appropriate. This is because the overarching fundamental law is not criticised from, for example a socio-economic perspective. In Chapter 2, through a descriptive and positivist discussion of the doctrine on the objectives of competition law, one of our findings is that consumer welfare is more than likely the main objective of competition law. This is accepted for the purposes of the rest of the thesis; our hypothesis in Chapter 4 is predicated on consumer welfare being the main objective from the perspective of the EU Commission and our proposed test is designed to ensure consumer welfare is maximised. Whether consumer welfare should be the objective, from for instance a macroeconomic perspective, is an issue outside the remit of the thesis.

Furthermore, in evaluating the Commission's approach in Chapter 4, use is made of economic and statistical literature on network effects for the purposes of critique. However, this does not require interdisciplinary research. The analysis of this literature still must be considered using a doctrinal approach as the law requires the EU Commission to carry out an evaluation of economic and statistical arguments on network effects. It therefore forms part of the legal assessment.

⁴⁰ See section 2.2

Finally, the network effects arguments that we argue should have been given due attention by the Commission in particular cases, are arguments that have been used by the Commission on other occasions; therefore what we fundamentally end up looking at is the consistency with which the Commission is applying its arguments across similar cases. That strongly indicates the requirement of a doctrinal approach to research.

With the exception of the use of some critical interdisciplinary research mentioned above with regards to Chapter 2, other methodologies such as a core socio-legal approach is considered incongruent with the aims of the thesis. Such approaches may, one can argue, be more suited to other areas of controversy in this area of law. For example, as will be seen in Chapter 2, there is a body of literature⁴¹ highly concerned with the privacy implications of mergers between free high technology companies. This thesis argues that this is an issue unlikely to be resolved by competition law; rather, other areas of law such as data protection may help. If a researcher were to attempt to find a way to get competition law to resolve privacy issues, he/she would have to look into changing the fundamental principles. For instance, it may be necessary for competition law to espouse a principle that reduction of competition should be achieved without regard to the effect on consumer welfare. In that way, any merger can be prevented where there is a significant reduction in competition and no one company can possess a huge amount of data. However, such research behind a revolutionising principle would mean that the researcher would have to use critical research to challenge the fundamental principle and overarching legal framework itself. As indicated, this is not the aim of the thesis.

⁴¹ See section 2.2.5

Below, we look at how the core methodology is applicable to different chapters of the thesis.

Chapter 2 looks at the relationship between competition and consumer welfare in the very specific context of free high technology in a critical manner using economic literature. This is the interdisciplinary research part of the thesis where we question the particular presumption in competition law that competition leads to consumer welfare. We then move on to a positivist and descriptive discussion of the current doctrine surrounding the objectives of competition law to conclude on how the objectives of competition law are currently considered in comparison to each other. Finally, having understood the status of the objectives of competition law, we engage in a normative discussion on what objective of competition law should be followed in the particular case of free high technology.

In Chapter 3 we begin with a descriptive discussion of the analytical framework used in competition investigations of free high technology cases by the Commission to then critically bring into light how it is incompatible with the economics of free high technology we considered in Chapter 2. We also critically analyse the way the Commission carries out its market definition to find certain limitations in its approach which contribute to our understanding of our hypothesis in Chapter 4.

In Chapter 4 we utilise a critical approach. We analyse discrepancies between different high technology cases and within the same cases in terms of approach that we conclude are unjustified. We then consider these discrepancies in a greater context widening it to our

knowledge about the economics of free high technologies from Chapter 2 to formulate our hypothesis on why the Commission applies an inconsistent approach. In doing so we reorganise the EU Commission investigations into distinct categories that are treated differently and expose potentially unstated beliefs of the Commission through a process of inductive deduction; deducing from the fact that the Commission clearly treats the free high technology category differently and in a particular way because of the fact that it is a free product.

In Chapter 5 finally, we apply a normative method of research in that we propose a new test that we conclude is more appropriate for free high technology investigations. The method remains embedded in a doctrinal methodology as we use currently available tools in the doctrine to deduce the new test. The current tests are adapted to suit free high technologies in the appropriate manner. .

1.5 Original Contribution

This thesis comprises of two original contributions;

1. It applies a unique analysis by comparing two different groups of EU Competition Commission technology investigations and their associated substantive arguments to find an inconsistent approach. It can be inferred from the inconsistent approach that the EU Commission believes free high technology companies are good for consumers because they are free and highly innovative, which is a unique conclusion in itself. This will be clearly explained in detail in Chapter 4.

2. It proposes a new specific test only for the category of free high technology that combines the *Magill*⁴² test and concept of innovation markets in order to prevent the EU Commission from putting forward limited substantive arguments and to prevent legal uncertainty.

1.6 Limitations

1.6.1 Not an evaluation/statement of the actual economic effects of free high technologies

This thesis does not intend to conclude as to whether free high technologies are good for consumers. It is important to point this out at the outset as Chapter 2 especially puts forward literature⁴³ that strongly supports the notion that large free online platforms are good for consumers. But there is a specific reason for this. We recall that part of our hypothesis is that the EU Commission believes that dominant free high technology companies with increasing market power are good for consumers and therefore it puts forward justifications that are limited according to the literature. The thesis observes the EU Commission acting a particular way and through analysis and inference, can only conclude that the EU Commission must be espousing the idea that large platforms are good for consumers in order to explain these limited justifications. Hence the seemingly, so to speak, pro-monopoly literature in the thesis is there as a highly plausible reason for the EU Commission's approach. The thesis itself does not intend to make a statement on whether it supports large free high technology companies; it instead puts forward an explanation behind the EU Commission's lax approach which is only reasonable if it does support free high technology companies.

⁴² Joined cases C-241/91 P and C-242/91 P *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v Commission of the European Communities* [1995] ECR I-00743

⁴³ See section 2.2

1.6.2 Perspective of users as consumers

The competition analysis considered in the thesis is looked at from the perspective of users of free online technology services and how consumer welfare is affected for those users. For example for search, it would be those who use search engines for searching all kinds of information. For social networking it would be those using the social networks. It does not look at the perspective of other potential relevant consumers⁴⁴ such as advertisers. There are several reasons for this which overall make researching the perspective of advertisers as consumers unremarkable within the context of this thesis.

Firstly, if we look at two of the main merger investigations involving free high technologies, one will note that either the substantive arguments surrounding advertising is uncontroversial

⁴⁴ The meaning of consumer in the context of competition law has been the centre of some literature; there is no definite meaning. However, despite the fact that it can be concluded that the term consumer can include various groups including, for example, intermediate wholesalers and final individual buyers (that purchase for final consumption), this does not pose much of a problem in the context of this particular thesis. Free high technology companies provide their services direct to the end-user. There is of course the necessary presence of the Internet Service Provider (ISP) intermediary; but we assume (and this is usually the case anyway) that ISPs do not charge internet content producers for communicating to the end users. There have been for example, alleged controversial practices in the US where particular ISPs would charge particular internet content providers a higher sum for higher bandwidth (faster speeds). The internet content provider then becomes a customer of the ISP; it purchases higher bandwidth to then pass on in a beneficial way to the end-user. However, this does not appear to be conventional practice and therefore the thesis excludes it from its scope. Hence, there is no direct business dealing with the ISP. It is imperative that the meaning of consumer is clarified in the EU competition law sense as there does not appear to be an official definition for the term (Some national courts have referred to the CJEU for clarification on the type of consumer they need to consider in their analysis of harm. See Case C-53/03 *Synetairismos Farmakopoion Aitolias & Akarnanias (Syfait) and Others v GlaxoSmithKline plc and GlaxoSmithKline AEVE* [2005] ECR I-04609 [20]- The national court of Greece asked the CJEU whether the disadvantage to the final consumer of the medicinal products in terms of price should be taken into consideration in balancing interests of the different groups effected by the practice of parallel trade. Very similar questions were asked in Joined Cases C-468/06 to C-478/06 *Sot Lelos Kai and others v GlaxoSmithKline AEVE Farmakeftikon Proïonton* [2008] ECR I-07139, [22]). Technically, a consumer could refer to any party or entity within the chain of distribution. For instance, if there is an investigation into a vertical merger between a computer hardware producer and a security software developer, there will be an analysis of the potential harm caused to consumers. However, consumers could refer both to the other security software developers who purchase licenses from the hardware producer (consumer of a raw material) and those who actually use computers with installed security software (final consumer of the product).

or is non-existent. In *Facebook/Whatsapp*⁴⁵ the market share of Facebook in online advertising seemed to be construed as quite low. For example, it was stated that Facebook only collected 6.39% of all data available on the internet compared to Google's collection of 30%.⁴⁶ Hence, from the perspective of the market of online advertising, the authorisation of the Facebook and Whatsapp merger is likely to attract little controversy; its market share was considered too low to be considered as a competitive threat anytime in the future. However, from the perspective of social network users, given that Facebook is the largest online social network, the authorisation of the merger appears more suspect. Then, in *Microsoft/Skype*⁴⁷ online advertising as a relevant market was not discussed; it appears at the time there were no pertinent issues to be discussed that could affect advertisers.

Apart from these two cases, virtually all other cases that involve free high technologies and other technologies considered only mainly involve the final consumer as the concerned consumer. All the Microsoft cases and mergers such as *Intel/McAfee*⁴⁸ and *Symantec/Veritas*⁴⁹ which are key cases for this thesis do not concern the advertising side. Since we are looking at the approach of the EU Commission and the EU Commission has focused on the final user, this will be our focus. A notable exception is the *Google/DoubleClick*⁵⁰ case which we will consider for its contribution to the EU

⁴⁵ *Facebook/Whatsapp* (Case No COMP/M.7217) [2014] available at http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf accessed on 23rd July 2017

⁴⁶ Ibid- see diagram on pg 34

⁴⁷ *Microsoft/ Skype* (Case No COMP/M.6281) [2011] at http://ec.europa.eu/competition/mergers/cases/decisions/m6281_924_2.pdf accessed on 5th February 2015

⁴⁸ *Intel/McAfee* (Case No COMP/M.5984) [2011] at http://ec.europa.eu/competition/mergers/cases/decisions/m5984_1922_2.pdf accessed on 10th March 2015

⁴⁹ *Symantec / Veritas* (Case No COMP/M.3697)[2005] available at http://ec.europa.eu/competition/mergers/cases/decisions/m3697_20050315_20310_en.pdf accessed on 24th July 2017

⁵⁰ *Google/DoubleClick* (Case No COMP/M.4731) [2008] available at http://ec.europa.eu/competition/mergers/cases/decisions/m4731_20080311_20682_en.pdf accessed on 24th July 2017

Commission's current narrative that competitive conditions on the internet are good. But because it is only one decided case on advertising (and where the advertising platform has major market share) and an analysis with other decided cases through comparison cannot take place, the advertising side as the consumer is not considered.

1.6.3 A note on the presumption that 'more competition is good for consumers'

Throughout the thesis we will be referring to the idea that competition law analysis is based on the concept or presumption that competition is good for consumers, or that more competition equals more consumer welfare. It is important to specify that competition, when mentioned in this context, refers to competition within the relevant markets that the EU Commission is discussing within that particular decision/investigation. For example, when we critically analyse a free high technology case and mention that the EU Commission assumes competition is good for consumers and that this may be a limited approach, we are only speaking of competition being possibly not good for consumers within the relevant market that the EU Commission considers. It is not a general statement to indicate that no competition whatsoever is required for consumer welfare; it is only within the particular context of the relevant market in question. For example, when discussing the *Facebook/Whatsapp*⁵¹ case we will consider that the EU Commission analyses the case on the basis of the presumption that competition is good for consumers. But this will only be referring to competition within one of the relevant markets that the EU Commission has chosen to analyse; for instance, the consumer communications applications market.

⁵¹*Facebook/Whatsapp* (Case No COMP/M.7217) [2014] available at http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf accessed on 23rd July 2017

It is important to note this as it is not the intention of this thesis to show that competition is unnecessary for consumer welfare period. Yes, the thesis does put forward literature to show that competition is not necessary for consumer welfare, but this is only within the current product market. It puts forward that within a current free high technology market, concentration is likely to lead to higher consumer welfare; only a large free high technology company can provide the best service. However, beyond that, the only way consumer welfare can increase is the arrival of a disruptive technology that will replace that market all together. We will explain in Chapter 2⁵² how this is not the same as competition within the same market. So putting aside the meaning of competition within a relevant market, competition in its general terms is required for better consumer welfare. But this is competition for the market as opposed to in the market.⁵³ The issue is that the majority of competition law analyses and all the competition law analyses in free high technology markets do not clearly and systematically analyse⁵⁴ competition for the market.

1.7 Structure of Thesis

This thesis comprises of three main core chapters excluding the Introduction and Conclusion Chapters.

This Introduction Chapter so far has given a comprehensive summary of what problem the thesis intends to tackle, the reason behind the problem and how it will as a result tackle it.

⁵² See especially section 2.2.6

⁵³ Ibid

⁵⁴ As we will see in Chapter 4, the EU Commission does recognize that free high technology industries are characterized by cycles of innovation, but it does not specifically take into account the specific features of disruptive innovation and how it fits into competition analysis.

The Introduction has also clarified the limitations of the thesis and definitions of terms used throughout the work.

Chapters 2, 3 and 4 together help build the thesis' hypothesis. Chapter 2 sets out the background and the foundations to the legal problem of inconsistency and limitations in the EU Commission's reasoning. This constitutes looking at the unique features of free high technologies and how they relate to the objectives and presumptions of current EU competition law. This chapter helps us understand the rationale behind the EU Commission's approaches in Chapters 3 and 4 and helps us formulate our hypothesis.

Chapter 3 introduces the analytical framework that is used by the EU Commission in free high technology cases. It builds on Chapter 2 in that it shows how the presumption of competition law that competition leads to consumer welfare trickles down and forms the basis of the structure of analysis that the EU Commission has to apply. Simultaneously and with equal importance, it provides context for the analysis carried out in Chapter 4. The analytical framework shapes up the arguments of the EU Commission we evaluate in Chapter 4.

Chapter 4 describes and analyses the EU Commission's approach in free high technology cases and compares it with other categories of investigations and cases to see why the free high technology investigations are associated with a different approach. In discussing the EU Commission's approach, we see that it applies particular competition law tests to come to its decisions. The tests would in turn be linked to an EU competition law framework which in turn would be based on presumptions and objectives of the law itself. One would therefore

expect that any issues of, for example in this case, limited views of the EU Commission, would be rooted in the objectives and presumptions of the overarching framework of the law. That is why the Chapter 2 sets out the objectives and presumptions of competition law and considers how they relate to free high technology. It discovers the conflicting conceptual issues that arise between EU competition law thinking and free high technology market features and in doing so betrays a harbinger of problematic issues in applying current competition law tests to free high technologies.

At the end of Chapter 4 we are able to refer back to the findings in Chapter 2 to formulate our hypothesis. For example, we figure that the EU Commission has a lax approach to dominant free high technology companies because they are good for consumers. This is a plausible notion as we establish in Chapter 2 that the main objective of competition law is consumer welfare. Further, we infer that the EU Commission puts forward the proposition based on limited views that there is a lot of competition in the market because that is the only way it can justify allowing dominant free high technology companies to grow to the detriment of smaller competitors. Again, this is a plausible notion because we find in Chapter 2 that EU competition law strongly espouses the presumption that competition is good for consumers.

Chapter 5 then proposes a new test to be applied to free high technologies based on the aims and problems reflected by Chapters 2, 3 and 4 i.e. that the test must either directly or indirectly recognise that dominant free high technology companies with increasing market power to the detriment of smaller competitors can be good for consumers and must not facilitate the need for putting forward confusing reasoning the likes of which are seen in Chapter 4.

CHAPTER 2: HOW FREE HIGH TECHNOLOGY FITS INTO THE OBJECTIVES AND UNDERLYING PRESUMPTIONS OF EU COMPETITION LAW

2.1 Introduction

As we can see from the ‘Introduction’ chapter of the entire thesis, this thesis attempts to resolve the inconsistencies and limitations of the EU Commission’s reasoning in its investigations and decisions concerning free high technology. We noted that the EU Commission implements a limited approach where it does not take into account all factors affecting whether or not the market is competitive. It therefore ends up presenting free high technology markets as competitive when they may not be in reality.

The root of this inadequate reasoning can be traced back to the way that the objectives and underlying presumptions of competition law and economic theory on free high technologies interact with each other. In this chapter we set out to understand these interactions as this serves as necessary background against which the EU Commission’s reasoning operates and how it conceptually fits with free high technology services. Only then can we truly comprehend the inadequacy and limited manner of the reasoning at the competition analysis stages that we will explore in Chapters 3 and 4.

In the process of understanding the objectives and presumptions and how they interact with the economics of free high technology the following questions are answered in this chapter with an interdisciplinary approach using economic literature;.

- a) What are the unique features of free high technology?

- b) How are the features of the free high technology industry incongruent with the main presumption of competition law?

We then address the following two questions:

- c) What is the current doctrine about the objectives of competition law?- this involves a descriptive discussion from which we extract particular findings in relation to the status of the different possible objectives of competition law.
- d) What should be the main objective in competition law investigations of free high technologies?- this is the normative question we answer in this chapter.

In exploring these questions, two particular findings emerge that are vital to understanding the root problem of the legal uncertainty discussed throughout Chapters 3 and 4. We will infer from the literature on two-sided markets and disruptive technologies and the existence of zero-price, that in the free high technology industry, the presence of a dominant company in the current relevant market with fewer competitors is very good for consumers.¹ However, our other finding is that the presumption in EU competition law appears to be that the more competition in the market, the higher consumer welfare would be. Hence the objectives of protecting competition and that of protecting consumer welfare are not meant to clash.²

¹ A simple example of this is an online social network. Each user is more likely to benefit further should there be more users on the site. It means they simply need to sign up to one social network to get access to all social network profiles; this reduces the time and effort of users from having to sign up to other networks to get access to other people. When there are more social networks in existence, there are likely to be more users on different network platforms, meaning it would be harder for them to get access to each other. There will be further elaboration on this.

² See for example Kenneth Arrow 'Economic Welfare and the Allocation of Resources for Invention, in *The Rate and Direction of Inventive Activity: Economic and Social Factors*' in Universities-National Bureau Committee for Economic Research, Committee on Economic Growth of the Social Science Research Council (ed) *The Rate and Direction of Inventive Activity: Economic and Social Factors* (Princeton University Press 1962) 609-625; the author suggests that with a situation with more competitors, there is more incentive to innovate than there would be in the case of a monopoly. This is especially in the case of more revolutionary inventions that displace current products.

However, in the free high technology industry, this is not the case. That is, more competition could mean more harm to consumers.³ One can therefore already envisage how a legal test based on the current presumptions of competition law would not work in the free high technology industry. Given this clash between the two objectives in this industry, it is absolutely necessary to determine what the main objective is to be pursued by European competition authorities in free high technology cases. This is especially important with free high technology as in more traditional industries,⁴ the two objectives go hand in hand. In other words, in traditional industries, if one pursues the protection of competition, then one also ends up pursuing consumer welfare and vice versa; hence, it is nowhere near as important to choose between the objectives as pursuing either one is likely to yield the same results. This is because they are, so to speak, directly proportional to each other in traditional industries.⁵ A reduction in competition tends to lead to prices going up to the detriment of consumers. But in free high technology cases prices cannot go up or down as there is no price charged in the first place.

Before discussing the issues in more detail, some limitations must be mentioned and the scope of the chapter must be appropriately limited. The descriptive discussion on the doctrine about the objective(s) of EU competition law is one that involves significant and complex

³ The credibility of competition as a means to consumer welfare has been questioned in the literature. For example, see Maurice Stucke 'Is competition always good?' (2013) 1(1) JAE 162; here it was considered that the presence of more competitors in the market meant that they potentially used more misleading ways to attract consumers who then end up benefiting less. However, the reason for supporting less competition as means to consumer welfare in this thesis is different. We consider that a dominant free high technology platform is able to provide all consumers with better quality service with the additional benefit of no price and a constant incentive to innovate.

⁴ As will be explained, traditional industries in this thesis are different from the free high technology industry in the sense that they involve products/services that have to be paid for. This could range from food products to advanced technology products such as computers and software (but those that have a monetary cost to the consumer)

⁵ See section 2.3 to see how competition is equated to consumer welfare in EU competition law related documents.

debate.⁶ This chapter does not intend to be a comprehensive analysis of this debate. Neither does it intend to determine what the objective of competition law should be on a critical or deep doctrinal basis.⁷ The scope of the issue that is looked at in this chapter is far more limited given that this is a thesis focussed on free high technologies; we therefore understandably cover the discussion to the extent that the objectives and presumptions controversially affect the free high technology industry. As already indicated, we will see that there are two fundamental objectives namely consumer welfare (which is directly concerned with benefits or the reduction thereof to consumers) and the protection of the competitive structure of the market (which relative to the former objective ends up protecting competitors in a more direct manner) that conflict with each other when it comes to free high technologies. Hence, our discussions will focus on these particular objectives and the potential conflict between the two.

We find that with regards to the EU Commission's rhetoric and documents such as the Guidance on the EU Commission's enforcement priorities in applying Article 82 (now 102) of the EC Treaty to abusive exclusionary conduct by dominant undertakings, consumer welfare is the main objective above all other ones. However, particular European court

⁶ See Ariel Ezrachi 'Sponge' (2016) JAE 1- competition law appears to have a multitude of values simultaneously. To add to the complexity is the fact that it is influenced by cultural and political constructs of the time. This makes it difficult to detect any intact core value in the first place.

⁷ See for example Renato Nazzini, *The Foundations of European Union Competition Law: the Objectives and Principles of Article 102* (Oxford University Press 2009)- the author provides a very comprehensive doctrinal discussion of what the objective of Article 102 should be in the sense that he relies fundamentally on Community provisions to come to his conclusion. For example, he logically ties Article 102 TFEU to Article 3(3) which mentions the wider objectives of the internal market. From there he deduces logically what objectives can be reasonably incorporated into an EU competition regime. This is not the in-depth method we use in this thesis to come to our conclusion on what the objective of competition policy is. Instead, the method is as follows: we find out what the objective is strongly indicated/stated to be in the EU Commission's competition policy (this is to be distinguished from what it appears to be in practice; this is a different matter); we then find out if there is any other body of law or authority that legitimately prevents consumer welfare from being the main objective in competition policy in the context of free high technology.

judgements, as will be seen, may conflict with the notion of pursuing the consumer welfare objective. We will see that in *Intel*,⁸ the General Court on the basis of a finding of reduction in competition on the basis of a particular rebates structure, held Intel to be abusing its market power without looking into the possible positive welfare effects on consumers the rebates might have had. After all, a rebate means a reduction in overall price. However, on further appeal by Intel, the Court of Justice of the European Union (CJEU) held that the General Court should not have inferred an abuse of market power solely on the basis of the structure of the rebate.⁹ The CJEU referred the case back to the General Court ordering it to take into consideration other factors.¹⁰ Both decisions will be discussed further in section 2.4.3. We will see that whilst the CJEU's decision does not mention effects on consumers as the paramount consideration, it definitely steers towards, rather than away from, confirmation of consumer welfare as the prioritised objective.

Finally, in terms of our normative question on what the objective should be in free high technology investigations, it is important to note that this question is answered in a strictly legal doctrinal context. This means that we consider our findings from our descriptive discussion of the current doctrine on the objectives of competition law and from there, in conjunction with the consideration of the presumption of competition law, we deduce what the main objective is to be pursued. In contrast, a normative approach within for example a socio-economic research context would be inappropriate here. That would include extensive debates about the wider socio-economic consequences of having larger digital technologies

⁸ Case T-286/09 *Intel Corp v European Commission* [2014] 5 C.M.L.R. 9

⁹ Case C-143/14P *Intel Corp v European Commission* [2017] available at <http://curia.europa.eu/juris/document/document.jsf?jsessionid=9ea7d0f130d52395152ebfab48c9a83395ba597a1009.e34KaxiLc3eQc40LaxqMbN4PaNqOe0?text=&docid=194082&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=161936> accessed 24 December 2017

¹⁰ *Ibid* para 147

on consumers' lives, taking away from the main focus of the thesis which aims to uncover inconsistencies and limitations in the way the Commission applies doctrine to a particular category of cases. However, our main analyses in Chapters 3, 4 and 5 have to be predicated on certain assumptions about the wider context of competition law. Of course, those assumptions need to be safe and solid; the doctrinal analysis we carry out in Chapter 2 around these assumptions is sufficient to offer us this safety.

2.2 The unique economics of free high technology

Before considering competition law's objectives and its application to the free high technology industry we need to have an understanding of the industry's specific economics. A consideration of competition law objectives out of context (of the free high technology sector) will not enable us to understand how problems arise between the concepts in competition law and this specific industry. Furthermore, more generally accepted ideas on monopolies, as we will see, do not always conform to the business models of free high technology companies. It is common knowledge that economic theory definitely agrees that a monopolist can raise prices significantly¹¹ and cause a concomitant loss of consumer surplus.¹² Also the increase of monopoly power leads to the occurrence of allocative¹³ and

¹¹See Massimo Motta, *Competition policy: theory and practice* (1st edn, Cambridge University Press, Cambridge, 2004) Chapter 2

¹² Prices rise above marginal costs in monopoly situations; hence consumers end up paying more than the actual monetary value of the good. Consumer surplus is reduced because now there are fewer consumers willing to pay a higher price (value the good more than the monopoly price) for the good/service.

¹³ Higher prices mean a lower quantity sold and demanded at that higher price. However, where the price is at the actual monetary value of the good/service (marginal cost) there is a higher quantity supplied and this is where there is allocative efficiency. That is, the correct amount of resources are employed in the economy to satisfy actual demand in the market.

general inefficiency¹⁴ and societally wasteful rent-seeking activities.¹⁵ Instead of re-investing significant profits into innovation and technology leading to more efficient production, companies with significant market power would rather invest in rent-seeking, that is activities such as forming lobby groups and attempting to bribe political figures for favours in the interests of the monopoly as a business.¹⁶ There is also an accompanying lack of innovation in a situation of fewer competitors.¹⁷ Hence, it would seem that the repercussions of the existence of a monopolist outweigh the positives. But as we will see, this is not necessarily the case for dominant free high technology companies that possess monopolistic powers.

This section provides literature to support the notion that free high technology services are beneficial to consumers without requiring a competitive structure in the market. This is a very important aspect of this chapter. As we will see later on in the chapter,¹⁸ EU competition law appears to encourage the notion that generally only competition can lead to benefits to consumers. For example, we will see that the EU Commission's proclamations making consumer welfare the core objective of competition law co-exists with a simultaneous implementation of competition law tests that look to ensure that the number of competitors is

¹⁴ See Harvey Leibenstein 'Allocative Efficiency vs. X-Efficiency' (1966) 56 *Am.Econ.Rev* 392- managers in monopolies are not motivated to select the most efficient methods/technologies for production as there is a lack of competitive pressure. This theory is also supported in Oliver Hart 'The Market Mechanism as an incentive scheme' (1983) 14 *Bell Journal of Economics* 366. For general support of the classic theory that competition leads to more efficiency see, for example, more evidenced based studies such as G Olley & A Pakes 'The Dynamics of Productivity in the Telecommunications Equipment Industry' (1996) 64 *Econometrica* 1263 and R Disney, J Haskel & Y Heden 'Restructuring and Productivity Growth in UK Manufacturing' (2003) 113(4890 *Econ.J.* (London) 666. However, it has also been said that by further increasing competition in a market that is already competitive, one risks losing the advantage of economies of scale that only a larger entity can benefit from (See Massimo Motta, *Competition policy: theory and practice* (1st edn, Cambridge University Press, Cambridge, 2004) 51,52

¹⁵ See Richard Posner 'The Social Cost of Monopoly and Regulation' (1975) 83 *J.Polit.Econ* 807 and Anne Krueger 'The Political Economy of the Rent-Seeking Society' (1974) 64 *Am.Econ.Rev.* 291

¹⁶ *Ibid*

¹⁷ Massimo Motta, *Competition policy: theory and practice* (1st edn, Cambridge University Press, Cambridge, 2004) Chapter 2

¹⁸ See section 2.3 onwards

not reduced as a result of practices by a dominant company.¹⁹ Hence, competition law and the economics of free high technology are likely to be linked to conflicting theories.

As mentioned, all free high technology services discussed in this thesis are known as two-sided markets. The economic theory on two-sided markets can help us understand how, in the free high technology sector, monopolies and high benefits to consumers can exist. More specifically, through exploring the literature on two-sided theory, we aim to explain how free high technology companies can provide consumers with services that are free, of a good quality and highly innovative because of their own large-scale or dominant position.

2.2.1 What is a two-sided market?

Before we look at two-sided theory, it is important to ensure that free high technology markets are in fact two-sided markets and possess the important characteristics of such markets.

The definition of a two-sided market must be ascertained carefully. One of the reasons for this is that it appears that a definitive and widely accepted definition of a two-sided market is not present in the literature. It becomes more complicated given the fact that to some extent all markets, quite literally, are two-sided; for instance any manufacturing business entity pays

¹⁹ See Commission, 'Communication from the EU Commission — Guidance on the EU Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings' (2009/C 45/02). Also see section 2.3 onwards

for raw materials on one side of the market whilst it sells the final product to consumers at the other end of the market.²⁰ Two-sided markets have also been likened to something that can be recognised when seen and therefore cannot be boiled down to specific characteristics.²¹

However, the very reason we are looking at the potential use of two-sided theory is because the thesis considers many high technology industries as uniquely two-sided markets which require tailored analyses to be applied to them. As we will see, it is the two-sidedness of these markets that enable free high technology services to have unique features that other industries do not possess. We look at the different definition of two-sided markets in more detail below.

Rochet and Tirole state that on two-sided platforms externalities arise when one side (let us call this Side 1) of the platform cares extensively about the number of people that are present on the other side (let us call this Side 2) of the platform; Side 2 therefore brings more value to the platform for Side 1.²² Side 2, however, can only internalize this extra value it brings to the platform and Side 1 in the form of significantly lower prices charged to Side 2.²³ Hence Rochet and Tirole go on to advocate that a leading characteristic of a two-sided platform is the presence of a pricing mechanism where the price Side 2 decreases whilst the price for Side 1 increases given the summation of the two prices always remain intact²⁴; Side 1 gains

²⁰ B Hermalin & M Katz ‘What’s so special about two-sided markets?’ (2016, Forthcoming in *Economic Theory and Public Policies: Joseph Stiglitz and the Teaching of Economics* Columbia University Press) 1 <
http://faculty.haas.berkeley.edu/hermalin/HKTtwo-Sided_Markets.pdf> accessed 11 July 2017

²¹ Ibid

²² J Rochet & J Tirole ‘Two-sided markets: a progress report,’ (2006) 37(3) *RAND J Econ* 645

²³ Ibid

²⁴ It is important to note this pricing mechanism in two-sided markets as otherwise it can cause confusion in terms of competition analysis. A two-sided market can otherwise be accused of predatory pricing or excessive high pricing. For example, a more single-sided analysis on a two-sided platform could lead to these incorrect conclusions. For instance, a company may be found in breach of competition rules by applying prices to one side of the market below marginal cost; this may be considered as predatory pricing in the case of a single-sided analysis as the focus would only be on the one side (See Case C-62/86 *AKZO Chemie BV v Commission of the European Communities* [1991] I-3445). However, a two-sided analysis would consider the likely possibility that the loss of profits on one side can be recovered on the other side, who are charged a significantly higher price; hence, it should be considered whether or not profits are foregone across both sides (See David S. Evans ‘Two-Sided Markets’ in Mark W. Nelson (ed) *Market Definition in Antitrust: Theory and Case Studies- (ABA Book*

more value from the presence of Side 2 as opposed to the reverse situation and therefore is charged a higher price.²⁵ Rysman interpreted two-sided platforms more simply and went on to state that a two-sided platform is one where the strategy applied to one side is influenced by that applied to the other side.²⁶ This has been criticized by Hermalin and Katz for being too broad a characterization as all businesses have to think of the different parties involved; for example, a classically one-sided platform such as a manufacturer will need to determine how much it will spend on raw materials (the supplier side) depending on how much demand is predicted by its consumer side.²⁷ Therefore the notion that the strategies applied to different groups affecting each other is not something distinct and applies to a wide variety of firms. Hence, it is probably best to not have it as a distinct or defining characteristic of a two-sided market.

Weyl has described two-sided platforms as those that possess market power on both sides and where there are cross-platform network effects (significant benefits provided to the other side

Publishing 2012) p 13). This is likely to lead to a different conclusion; that is that predatory pricing does not occur as the concerned company makes up for lost profits from the other side and therefore is not deliberately and cunningly sacrificing profits in an attempt to foreclose competitors (See J Wright 'One-Sided Logic in Two-Sided Markets' (2004) 3 (1) REV.NETWORK ECON. 44, 48). Another example is where instead of supposedly predatory pricing, the two sided platform is accused of extremely high monopoly prices that are significantly above marginal costs (Markets that are considered perfectly competitive will have a price which equals the marginal cost; any attempt to go above marginal cost will be met by a reduction in price by competitors. Hence, a price significantly above marginal cost could indicate the existence of a monopoly) However, such a theory of prices above marginal costs strongly indicating high monopolistic prices does not apply to two-sided platforms as those high prices subsidize the other side of the market where prices are significantly lower and probably below marginal cost; hence a part of the high profits made on the side where the customers pay is meant to cover the fixed costs and marginal costs on the side where customers pay less or nothing (G Parker & M Van Alstyne 'InterNetwork Externalities and Free Information Goods' in *Proceedings of the 2nd ACM conference on Electronic commerce* (ACM 2000) 115). Put another way, consumer welfare is not harmed by the high prices on the one side of the market because in a two sided market the positive externalities or consumer surplus is captured on the side of the free product (G Parker & M Van Alstyne 'InterNetwork Externalities and Free Information Goods' in *Proceedings of the 2nd ACM conference on Electronic commerce* (ACM 2000) 115).

²⁵ J Rochet & J. Tirole 'Two-sided markets: a progress report,' (2006) 37(3) RAND J Econ 645

²⁶ Marc Rysman 'The Economics of Two-Sided Markets' (2009) 23(3) J Econ Perspect 125, 126

²⁷ B Hermalin & M Katz 'What's so special about two-sided markets?' (2016) *Economic Theory and Public Policies: Joseph Stiglitz and the Teaching of Economics* (Columbia University Press) 1 <

http://faculty.haas.berkeley.edu/hermalin/HKTtwo-Sided_Markets.pdf> accessed 11th July 2017

from one side).²⁸ Hagiu characterised two-sided markets in a particular way that ensured that it did not include retail shops; he stated that retailers, unlike two sided platforms, take possession of goods and then sell to consumers in stores; on the other hand platforms do not have full control rights over goods and their role focuses on bringing the two sides into direct contact with each other.²⁹

Furthermore, a lot of the initial and pioneering literature on two-sided markets is closely linked to the literature on network effects.³⁰ For instance, Rochet and Tirole have described network effects (or network externalities as they describe) as fundamentally being present when companies have a platform bringing at least two different sets of consumers together where they can and possibly need to interact with each other.³¹ Where network effects are not as great, a more single-sided analysis is appropriate.³² The network effects that are referred to in respect of two-sided platforms are known as ‘inter-group’ externalities as opposed to ‘intra-group’ externalities; these ‘inter-group’ externalities can also familiarly be known as indirect network effects.³³ Generally, direct network effects indicate a situation where the value of a product/service goes up as more and more people use it. For example, a video games console will have more value if more people use it as there will be more people to play with online;³⁴ all players demand the same service of being able to play with each other and

²⁸ E. Glen Weyl ‘A price theory of Multi-sided Platforms’ (2010) 100(4) *Am Econ Rev* 1642, 1644

²⁹ Andrei Hagiu ‘Merchant or Two-Sided Platform’ (2007) 6(2) *RNE* 115

³⁰ Network effects occur when the value of, for example, a service platform increases to users the more users join it. Network effects will be discussed further in this chapter and extensively in Chapter 2. At this point it is important to know that it is considered an important feature of two-sided markets.

³¹ J Rochet & J Tirole ‘Platform Competition in Two-sided platform’ (2003) 1(4) *J Eur Econ Assoc* 990

³² Delegation of the European Commission, ‘Roundtable on two-sided markets; a note by the Delegation of the European Commission’ DAF/COMP/WD (2009) 69, paragraph 14

³³ *Ibid* paragraphs 15 to 20

³⁴ Though recently console manufacturers are contemplating the possibility of allowing users of different consoles to play with each other online. See Kyle Orland ‘Why Microsoft is finally pushing for cross-platform online gaming’ (*Ars Technica*, 15 March 2016) <<http://arstechnica.co.uk/gaming/2016/03/why-microsoft-is-finally-pushing-for-cross-platform-online-gaming/>> accessed 9th May 2016

are therefore can be considered to be in the same group of customer. However, an indirect effect occurs when there are two different groups of customers who want to make a transaction with each other and each group demands something different of the other.³⁵

Taking the consoles example again, the two sided platform of a console involves players and game developers; game developers will want to sell their games while players will want to purchase the games. Another way of putting it is that in a two-sided platform there is a demand not only for the main platform, but also other products/services that are compatible with the platform.³⁶

Although we have seen different definitions for two-sided markets there is a common theme that appears to make them all congruent with each other. All definitions involve two different groups of customers connected with each other via a particular entity/platform. We will therefore define a two-sided market as one where two or more groups exchange some form of value directly³⁷ with each other through a common entity/platform. We can therefore conclude and observe that the free high technology sector is characterized by two sided platforms³⁸ as a two/multi-sided platform's core business, just like that of free high technologies, involves bringing together different groups of consumers who need each other

³⁵ See M Katz & C Shapiro 'Network Externalities, Competition, and Compatibility' (1985) 75 Am Econ Rev 424. Direct effect is described as 'the direct physical effect on the number of purchasers on the quality of a product'. The immediate effect of having more purchasers of the console, for example, is that there will be more players online and therefore the quality of the console, so to speak, improves. The more long-term and indirect effect is for game developers to eventually realise the great number of players present on the platform and produce more games compatible with that console.

³⁶ See Delegation of the European Commission, 'Roundtable on two-sided markets; a note by the Delegation of the European Commission' DAF/COMP/WD(2009)69- Explanation in footnote 4

³⁷ There should be emphasis placed on the word directly. This is to distinguish from situations foreseen by Hagiu where retail shops are mistakenly seen as two sided markets. In the retail shop, the purchaser engages with the retailer as opposed to the manufacturer. On two sided platforms, very often they are put into direct contact with each other via the platform.

³⁸ D Evans & R Schmalensee 'Industrial Organization of Markets with Two-Sided Platforms' (2007) 3 Competition Pol'y Int'l 150, 152

in some way and allowing them to interact and carry out transactions between each other.³⁹ With reference to the companies involved in the investigations discussed in this thesis there are a lot of two/multi-sided platforms involved. For instance, Google brings advertisers in touch with search users; Facebook does something similar by promoting Facebook pages of particular businesses to allow exposure to Facebook users; Microsoft brings software applications (for example web browsers) and computer users together via their operating system Windows. The thesis will also, however, be looking at other free high technologies such as communications applications such as Whatsapp. As a standalone product, a communication application does not appear to be two-sided. It does not for example, advertise to end users through the service. However, free services like these fundamentally aim to grow their user base to become more valuable. They become more attractive to larger entities looking for data on end users to enable them to carry out targeted advertising. Hence, the large communication application serves another customer type, running in a two-sided fashion, gathering data from consumers and passing that on to another entity for targeted advertising.

Given the definitions we have seen, it is clear that these entities fall into all those definitions. For instance, the advertisers really care about the number of people using the search engine or social network as this means a likelihood of higher exposure. Another way to look at it is that all the search engine and social network users provide a significant amount of value to the advertisers on the other side of the market just by virtue of their presence on the platform. Businesses and advertisers would gain no value from a search engine unless it was able to provide a database of search users; search users would not gain any value from search

³⁹ Ibid

engines unless they were able to provide information attained from businesses that have websites and an online presence.⁴⁰ This value to advertisers is also increasingly enhanced by these free high technologies' ability to gather user data and show highly targeted and customised advertising to each different user.⁴¹

Both sides appear to therefore have a directly proportional effect to each other; less value from one side leads to lower value provided on the other side. Furthermore, one could interpret that there is a pricing mechanism similar to that suggested by Rochet and Tirole.⁴² Advertisers are willing to pay a price for the value it receives to the platform and therefore a significantly lower price is charged to the other side (in the case of social network and search engine users this price is zero).

It may however be argued that when it comes to search engines and social networks that are involved in both a user side and an advertising side, the value is one directional in the sense that advertisers receive gain value from users directly, whilst users do not gain value from the advertisers; in other words users simply tolerate advertisements.⁴³ As we have mentioned,

⁴⁰ David S Evans 'How catalysts ignite: the economics of platform-based start-ups' in Annabelle Gawer (ed) *Platforms, Markets and Innovation* (Edward Elgar Publishing 2009) 99- David Evans provides examples of platforms where value exchanges are absolutely necessary and two parties on platforms are linked together very closely. Shopping malls attempt to get an 'anchor tenant' (a brand store, for instance, which is well-known and can attract many customers due to its pre-existing reputation) which can provide value for customers; nightclubs attempt to get popular figures to attend their opening nights to provide value to a crowd of nightclub goers. Similarly, a business like a search engine has to be able to provide value.

⁴¹ See for example S Boerman, S Kruikemeier & F Borgesius 'Online behavioural advertising: a literature review and research agenda' (2016) 46(3) *J Advertising* 363

⁴² Given that we know services such as search and social networking are free for users but not for advertisers, Rochet and Tirole's theory that one side is charged a lot less (in these cases users are charged nothing) and the other which gains more value is charged significantly more applies See J Rochet & J. Tirole 'Two-sided markets: a progress report,' (2006) 37(3) *RAND J Econ* 645

⁴³ M.R. Patterson 'Google and Search Engine Market Power' [2013] *Harvard Journal of Law and Technology Occasional Paper Series* 1-24

two-sided markets involve an exchange of value between different groups. In that sense the argument could be that such free high technology services are not two-sided markets.

However, this is not the case if we consider some of the subtleties involved in these markets.

First of all, the idea that advertisements are tolerated could be a broad generalisation

especially where advertising is increasingly targeted and relevant to a user; because there is a

greater sense of customization of advertisements to every individual user (more so than any

other type of platform such as television), it is equally possible that users gain value from

being informed about exactly what they are looking for.⁴⁴ Secondly, if one were to pose the

question as to whether users are willing to pay for high quality search results without the

search engine being supported by advertising funding, the likely answer would be no.⁴⁵

Hence, users indirectly receive one of the most important advantages from the advertising

side; that is zero-price services. Such externalities have been recognized as part of a two-

sided market model; for example, they have been specifically termed as a two-sided ‘non-

transaction’ market because a direct transaction does not take place between all the groups on

the platform.⁴⁶ Nonetheless they are two-sided markets given that the groups bring value to

each other in one way or another.⁴⁷

Having considered the characteristics of two-sided markets we can see stark similarities with

free high technology markets. Therefore we can safely conclude that this market is a two-

⁴⁴ Anca D Chirita ‘Google’s Anti-Competitive and Unfair Practices in Digital Leisure Markets’ (2015) 11(1) *The Competition Law Review* 109

⁴⁵ As circumstances stand now, it appears users are far from willing to pay for search. In fact it has gone in the opposite direction with, for example, Bing paying users to use their search engines in the form of rewards. See Emma Munbodi ‘Google or...Bing? Microsoft is now PAYING customers to use its search engine - and this is how much you could earn’ (*Mirror* 6 June 2017) available at <http://www.mirror.co.uk/money/microsoft-pay-customers-use-bing-10568726> accessed on 3rd September 2017

⁴⁶ E van Damme, L Filistrucchi, D Geradin, S Keunen, T Klein, T Michielsen & J Wileur ‘Mergers in Two-Sided Markets—A Report to the NMa’ (Netherlands Competition Authority 2010)

⁴⁷ L Filistrucchi, D Geradin, E van Damme & P Affeld ‘Market Definition in two-sided markets: theory and practice’ (2014) 10(2) *JCL & E* 293

sided one. Having established free high technology markets as a two sided one we will see in the next section how even increasing market power on the part of a dominant free high technology company can lead to immense benefits for consumers. In the next section we consider how two-sided theory supports that a large dominant platform is good for consumer welfare.

2.2.2 The link between competition and benefits to consumers

The general theory, as will be seen, is that increased competition is good for consumers. It is imperative however that we clarify what we mean by increased competition and how we use it in this particular thesis.

2.2.2.1 What we mean by ‘competition’ and the ‘protection of competition’

In this thesis ‘competition’ will refer to a situation where there are multiple competitors and the ‘protection of competition’ will refer to ensuring there is no reduction in the number of competitors.

It is important to clarify this as it is a term that can be interpreted in different manners depending on context. We will consider the different possible contexts below in order to have a clear understanding of how its meaning can change.

One will note that, for example, both the Merger Regulations and Guidance on the Enforcement of Article 102 aim to protect ‘effective competition’ as opposed to just ‘competition’. This could be because in current competition policy narrative, the protection of

effective competition (sometimes also referred to as the protection of the competitive structure of the market) has been distinguished from the protection of competitors.⁴⁸ As we will discuss in Chapter 2,⁴⁹ the idea of protecting competitors was born out of Ordoliberalism which strongly influenced the roots of EU competition law.⁵⁰ However, as we will also see, eventually the influence of a strict interpretation of Ordoliberalism waned and the protection of competitors was qualified on the basis of efficiency.⁵¹ In other words, if the incumbent's merger or unilateral action leads to higher efficiencies, this should be allowed even if it means the potential foreclosure of less efficient competitors.⁵² Hence, the distinction between protecting competitors and effective competition is reflected even in early roots of EU competition law.⁵³ The protection of effective competition could be seen as a form of phrasing that distances 'effective competition' from a pure and unqualified protection of competitors. In other words, effective competition can be likened more to the looser interpretation of Ordoliberalism which rather offers more qualified protection to competitors.

Furthermore, it has been indicated that competition can still be protected even where there is a reduction of competitors provided that competitors are not unnecessarily stopped from competing purely on merit.⁵⁴ In that sense, the protection of effective competition does not

⁴⁸ See Eleanor Fox 'We protect competition, you protect competitors' (2003) 26(2) W.Comp. 149

⁴⁹ See section 2.4.2

⁵⁰ David Gerber, *Law and Competition in Twentieth-Century Europe, Protecting Prometheus* (Oxford, Clarendon Press, 1998) 240

⁵¹ Frank Maier-Rigaud 'On the normative foundations of competition law- Efficiency, Political Freedom and the Freedom to Compete' in Daniel Zimmer (ed) *The Goals of Competition Law* (Edward Elgar Publishing International 2012) 145

⁵² Ibid

⁵³ Also see Case C-95/04 P *British Airways v Commission* [2006] ECR I-02331 Opinion of Kokott para 68- the Advocate General clearly distinguishes protection of individual competitors/consumers from protection of the competitive structure in the market.

⁵⁴ Eleanor Fox 'We protect competition, you protect competitors' (2003) 26(2) W.Comp. 149 - The author explains that in the US, companies who engage in practices that may threaten the existence of other competitors are not flouting competition rules as long as they do not limit output and raise prices for consumers artificially. In the absence of this limit in output and artificial price rise, the only conclusion is that the company in question

seem to refer to the number of competitors either; instead it appears to refer to ensuring that the market contains competitors that are effective in producing benefit for consumers (on merit). It is also observed that the difference between protecting competitors and protecting effective competition is alluded to whenever the goals of competition law are declared to be those such as consumer welfare or efficiency.⁵⁵ As we will see, consumer welfare and efficiency are not necessarily compatible with a situation where there are many players in the market competing against each other. Goals such as these can arguably be achieved via greater concentration of power in the hands of one company. In other words, a competition regime that favours consumer welfare or efficiency as goals is more likely to interpret the protection of effective competition as only protecting those competitors that improve consumer welfare and efficiency (whether or not it means a reduction of competition) as opposed to protecting competitors in general.⁵⁶

However, it has been also indicated that in Europe, competition is interpreted as the process of protecting competitors and the concern is to prevent any reduction of competitors in the

is engaging in practices that are comparatively more efficient (See R Bork *The Antitrust Paradox: A Policy at war with itself* (Free Press, New York 1978) 160; whether or not this increase in efficiency goes on to cause the foreclosure of competitors is not a concern of antitrust law

⁵⁵ See for example, David Spector 'From harm to competitors to harm to competition: one more effort, please!' (2006) 2 ECJ 145- the author associates the notion of harm to competition to a policy emphasizing consumer welfare.

⁵⁶ See Renato Nazzini 'Article 81 EC between time present and time past: a normative critique of "Restriction of Competition" in EU Law' (2006) 43(2) CML. Rev. 497 – '...competition law protects competition, a concept dependent, to a significant extent, on cultural, social, and economic constructs'. Here the author appears to indicate that the interpretation of the 'protection of competition' is something that can vary depending on what the narrative of the relevant time is. Also see David Gerber *Law and Competition in Twentieth Century Europe: Protecting Prometheus* (Oxford University Press 2001) 10- 'Competition is an abstract concept. It (is a)... cultural construct'. Also see EU Commission's Discussion Paper on Article 82 para 54- 'The essential objective of Article 82 when analysing exclusionary conduct is the protection of competition on the market as a means of enhancing consumer welfare and of ensuring an efficient allocation of resources. The concern is to prevent exclusionary conduct of the dominant firm which is likely to limit the remaining competitive constraints on the dominant company, including entry of newcomers, so as to avoid that consumers are harmed. This means that it is competition, and not competitors as such, that is to be protected. Furthermore, the purpose of Article 82 is not to protect competitors from dominant firms' genuine competition based on factors such as higher quality, novel products, opportune innovation or otherwise better performance, but to ensure that these competitors are also able to expand in or enter the market and compete therein on the merits, without facing competition conditions which are distorted or impaired by the dominant firm.'

market.⁵⁷ As we will see, the current competition law frameworks for analysis appear, in essence and effect, to be concerned with protecting any competitor who is at the risk of elimination. We will see generally throughout Chapter 3 that the direct analysis of efficiency and consumer welfare takes place to a very small extent; the number of competitors in the market is therefore of great relevance.

In conclusion, what we see is that the meaning of effective competition itself is dependent on the circumstances and is malleable depending on the competition policy of the day.⁵⁸ Hence it is not a reliable phrase to be used when we refer to the protection of the number of competitors. Therefore, we instead simply refer to the protection of competition.

2.2.2.2 How much competition is beneficial for consumers in two-sided markets?

Increased competition is very often associated with increased benefits for consumers, as we will see later on in this chapter. It has been pointed out specifically, for example, when it comes to search engines, concentration in the market gives the dominant incumbent the incentive to lower search quality. This has been attributed to the possibility of under-investment in search quality.⁵⁹ Search engines do not charge users for a service and hence their revenue mainly comes from advertisers.⁶⁰ This means that the focus is on raising revenue from advertisers meaning more advertisements.⁶¹ Increased advertising on search engines is what lowers the quality for users as they would rather not be bombarded with

⁵⁷ See for example William Kolasky 'Conglomerate Mergers and Range Effects: It's a Long Way from Chicago to Brussels' (2002) 10 Geo. Mason L. Rev. 533

⁵⁸ Renato Nazzini 'Article 81 EC between time present and time past: a normative critique of "Restriction of Competition" in EU Law' (2006) 43(2) CML. Rev. 497

⁵⁹ I Lianos & E Motchenkova 'Market Dominance and Quality of Search Results in the Search Engine Market' (Centre for Law, Economics and Society, Working Paper series 2/2012, September 2012) 30-31 available at <https://www.ucl.ac.uk/cles/research-paper-series/research-papers/cles-2-2012> accessed on 30 August 2017

⁶⁰ Ibid

⁶¹ Ibid

advertisements.⁶² However, there are two issues in relation to this. Firstly, search engines focus on targeted advertising which means that it is likely to be good for consumers, as the advertisements they receive will most likely be relevant to them and at the least be the most relevant advertising across any medium including other search engines.⁶³ The dominant incumbent search engine, as we will see later, has more data and therefore is likely to have the best targeting abilities in comparison to smaller search engines. Secondly, we will also see in this section that search engines are rather incentivised to improve search quality as that is the main factor which actually enables them to continue attracting advertisers to its platform in the first place. We now turn to this literature below.

There is literature on two-sided markets that seem to suggest that there is a greater amount of benefit for consumers where the market is composed of one large platform as opposed to several competing platforms.⁶⁴ It therefore lends credence to the notion that a dominant free high technology company is good for consumer welfare.

Hermalin and Katz, for example, explain how the existence of a single platform may be better in a market as opposed to multiple ones through the analogy of the bar scene. They have stated that two sided markets are characterized by idiosyncratic pairing and inefficient

⁶² Ibid

⁶³ RH Bork and JS Sidak 'What does the Chicago School teach about internet search and the antitrust treatment of Google' (2012) 8(4) J.C.L.& E. 663. However, it is important to note that this argument is not unchallenged. It has been suggested that personalised advertising can make consumers purchase things and in amounts that they do not need and do not increase consumer welfare. See for example, A Ezrachi & M Stucke 'The rise of behavioural discrimination' (2016) 37(12) ECLR 485, 490. However, given our conclusions in section 2.2.5 below, such issues are best not dealt with competition law.

⁶⁴ B Hermalin & M Katz 'What's so special about two-sided markets?' (2016, *Economic Theory and Public Policies: Joseph Stiglitz and the Teaching of Economics*, Columbia University Press) 1 <
http://faculty.haas.berkeley.edu/hermalin/HKTtwo-Sided_Markets.pdf> accessed 11th July 2017

rationing, which shall be explained further.⁶⁵ They consider that in two-sided platforms, each extra additional member on either side does not necessarily bring in extra benefit for each member of the other side.⁶⁶

The classic example used in the literature is a singles bar where the availability of a greater number of women brings extra benefit to men; however this is only the case if each woman takes a liking to any man on the other side of the platform (the bar in this case).⁶⁷ The reality is much more complicated in the sense that members of both sides will have particular standards and will be unlikely to fancy just any and all members of the other side.⁶⁸ Hence, there is no guarantee that an addition of an extra member on the other side will generate a positive network effect for the incumbent side. There is therefore inefficient rationing in the sense that the singles bar charges a man to come in when there is little surety as to whether or not he will match with someone romantically.⁶⁹

However, there is also the issue of idiosyncratic matching which actually advocates that it is actually socially optimal for more men to join regardless of whether or not they meet the standards of the women on the other side of the platform.⁷⁰ This is because the higher the number of men in the singles bar, the higher the chance that there will be men amongst those that do meet the standards of women on the other end. Hence, each woman is more likely to get maximum value as there would be a greater chance of each finding one meeting her

⁶⁵ Ibid

⁶⁶ Ibid

⁶⁷ Ibid

⁶⁸ Ibid

⁶⁹ Ibid

⁷⁰ Ibid

standards.⁷¹ We therefore see that a situation where there is one platform instead of several is advocated; there appears to be more consumer benefit on a single platform. This can be interpreted as advocating the existence of a single company in a market, in other words a monopoly.

Similarly, the theory can therefore support the notion that a dominant free high technology platform is able to provide a better service to its users. Take a search engine for example. The more users using it, the more data it has to use to detect search patterns and improve search algorithms so that search results can become more accurate.⁷² The more data there is, the higher the chances of coming across relevant data that can help improve the user experience for other users.

We therefore understand how the use of a larger dominant platform can bring more benefit to users. However, in the case of free high technology, as we will observe in section 2.2, a lot of users engage in multi-homing; this means that they use or have the option to use several platforms at the same time. This is because they are not tied to any particular platform emotionally as they have not had to pay for any of their services.

One can therefore argue, that when it comes to free high technology, the simultaneous existence of several platforms should still allow all platforms to improve efficiency and quality. This is because many platforms should be able to share all users due to this ‘multi-

⁷¹ Ibid

⁷² We will discuss the idea of search engines improving the accuracy of their results based on large scale of users further in section 3.4.1

homing' nature. Hence, it can be argued that dominance of a single platform is not necessary for consumer benefit on this basis. But, how good is multi-homing for consumer benefit really? The economics of two-sided analysis has in fact revealed that, especially when it comes to intermediary platforms that operate online, multi-homing is less efficient than a situation where single-homing exists.⁷³ This is because there is an imminent possibility of the same people on the two sides of the market being matched across different platforms; resources are therefore wasted on achieving the same match or outcome multiple times.⁷⁴

Hence, two-sided theory, so to speak, advocates increasing network effects and allowing the concentration of power in a particular, say search engine, for the sake of better levels of efficiency. This is especially possible given the fact that, as we will see later, competition authorities are meant to take into consideration any potential gains in efficiencies resulting in mergers which could in turn benefit consumers; for example efficiency could lead to lower average costs and therefore possibly lower prices.⁷⁵ The authorities need to balance the different considerations with each other. Hence, two-sided theory could consider network effects in a much more positive light as opposed to a factor that will be a threat to competition. However, other theories may suggest, as we will see, that efficiency from having a large number of users can disappear at some point and therefore become adverse for consumer welfare. Two-sided markets have been described as the continuous 'reuse of a core component to achieve economies of scale while reducing the cost of creating a wide variety

⁷³ B Caillaud & B Jullien 'Chicken and Egg: Competition among Intermediation Service Providers' (2003) 24 RAND J Econ 309, 310

⁷⁴ Ibid

⁷⁵ See E Elhauge and D Geradin *Global Competition Law and Economics* (Second Edition, Hart Publishing 2011) 516

of complementary components.’⁷⁶ However, at some point economies of scale can diminish as the size of the network gets larger.⁷⁷

This can happen in free high technology industries where, for instance with social networks, as more and more people join the platforms there is more congestion which in turn leads to slower services on the platform website which subsequently leads to a lower rated user experience.⁷⁸ However, given this possibility, there is very little evidence in general literature that suggests congestion and slow user experience are major issues of complaint amongst users. Modern internet speeds and bandwidths possess high capacity for significant traffic so that slow user experiences are unlikely to occur.

However, efficiency arising from the existence of a single large platform in a market would also cover any efficiency that the user experiences. Sometimes a larger platform that absorbs complements⁷⁹ means that users can save time by simply reaching a single point from where they gain access to all services, a single point for customer service and by not having to search for competitors’ complements.⁸⁰ In turn, users’ use of the dominant platform’s complements can lead to more efficiency on the part of the platform itself. Having a large platform with an absorbed complement can also have unique efficiency effects in terms of

⁷⁶ C Baldwin & C Woodard ‘The architecture of platforms: a unified view’ in Annabelle Gawer (ed) *Platforms, Markets and Innovation* (Edward Elgar Publishing 2009) 19

⁷⁷ Delegation of the European Commission, ‘Roundtable on two-sided markets; a note by the Delegation of the European Commission’ DAF/COMP/WD (2009) 16

⁷⁸ Ibid

⁷⁹ An example of this could be a search engine acquiring a video streaming company or an operating system acquiring a video communications service and then subsequently incorporating them on to the main search engine and operating system platforms respectively.

⁸⁰ See Thomas R Eisenmann, Geoffrey Parker & Marshall Van Alstyne ‘Opening Platforms: how, when and why?’ in Annabelle Gawer (ed) *Platforms, Markets and Innovation* (Edward Elgar Publishing 2009) 146

resources; for example there are economies of scope in customer acquisition activities.⁸¹ For instance, one advertising campaign can cover both the main product and its complements at the same time; in other words less resources are used to communicate information about the products to the public.⁸²

Given the arguments above, whilst it is reasonable to conclude that there are efficiency gains that can translate into better quality, there is an argument that multi-homing may in fact be preferred by platforms themselves. Theory can explain how multi-homing is good for competitors in the market as opposed to consumers. It has been postulated that whilst single-homing leads to more efficiency and lower prices for consumers, the existence of multi-homing is preferable from the point of view of two-sided platforms.⁸³ Single-homing can usually be a result of charging a price for joining the platform.⁸⁴ Once a price is charged, users of the platform feel locked-in and would rather not use other platforms as they would have to invest more money.⁸⁵ Hence, there is likely to be strong competition on price, leading to overall lower profits. With multi-homing however, the lack of joining fee means that platforms can take advantage of each others members and would therefore have access to a larger database of users.⁸⁶ This in turn would lead to overall larger profits for the platforms.⁸⁷ This appears to match with the current reality of users being able to multi-home amongst online platforms. However, the reality is also that, although consumers could multi-home

⁸¹ See Steven J Davis, Jack MacCrisken & Kevin M Murphy 'Economic perspectives on software design: PC operating systems and platforms' in David Evans (ed) *Microsoft, Antitrust and the New Economy: Selected Essays* (Kluwer 2002) 361

⁸² *Ibid*

⁸³ *Ibid*

⁸⁴ *Ibid*

⁸⁵ *Ibid*

⁸⁶ *Ibid*

⁸⁷ *Ibid*

should they wish, they do not always do so. For example, we will see literature in Chapter 3 expressing numerical evidence suggesting that multi-homing in search did not take place as much; searchers tend to stick to a particular search engine. We will also see how behavioural economics explains certain aspects of consumer behaviour that make them unwilling to multi-home and test alternative services even if it is free to do so.⁸⁸

Furthermore, it is also common knowledge that a small number of social networks (that do not charge a fee for having social network accounts) extensively dominate the market for social networks.⁸⁹ For example, Facebook and Youtube are listed as most used with approximately 1.5 billion visits per month, whilst the third most popular site is Twitter with only 400 million visits per month.⁹⁰ There is a huge gap between the top two and the rest, making Facebook and YouTube appear to have huge market shares. However, market power is arguably even more concentrated. From a competition law analysis perspective, it is likely that YouTube and Facebook will be considered to be in separate markets as they still offer very different types of social services that are not substitutable (we will explore similar analyses in more detail in Chapter 2). Given this, a company like Facebook would have very few competitors in its market. Also, Instagram is listed as the fourth most visited site. Given that Instagram is also owned by Facebook, the social network market would appear even more concentrated.

⁸⁸ See section 3.3.3.1.

⁸⁹ See eBizMBA 'Top 15 Most Popular Social Networking Sites' (*eBizMBA* May 2017) <http://www.ebizmba.com/articles/social-networking-websites> accessed on 15th May 2017;

⁹⁰ *Ibid*

Hence, the reality of the platforms that this thesis is concerned with is an environment dominated by single-homing. However, as we have just seen this is still good for consumers, but perhaps not for the platform as a business itself. It leads to more efficiency as just seen.

Given our discussions above, we can conclude at this point that a dominant free high technology service with increasing market power can be highly beneficial for users. They can provide more efficiency. More importantly, a platform having a large scale can use it to provide better quality results and matches for users. Whilst multi-homing may be beneficial for competitors in the market, it may not be for consumers.

2.2.3 How two-sided theory explains the inherent innovative nature of two-sided platforms

One of the main arguments put forward in this thesis is that the increasingly large size of a free high technology company is what allows them to provide highly innovative services to the benefit of consumers. There are good reasons for this proposition and the price mechanism present on two-sided platforms especially may help explain why platforms in the high technology industry need to remain innovative or provide a consistently high level of quality.

One of the unique characteristics of a two-sided platform is the effect of a price change; a price change will not only have an effect on the demand for the relevant product but also affect the demand for the product on the other side of the platform.⁹¹ For instance, a price

⁹¹ See David S. Evans 'Two-Sided Markets' in Mark W. Nelson (ed) *Market Definition in Antitrust: Theory and Case Studies*- (ABA Book Publishing 2012)

rise on one side leading to less demand on that side would therefore lead to lower demand on the other side. This logically means that the two sided platform faces a potential loss of customers on both sides which is something that a traditional analysis of a single sided business would not take into account.

The main point here is that two sided-theory explains how the adverse effect of increasing price is twofold compared to a one-sided company. Similarly, the adverse effect of decreasing quality or innovativeness would also be twofold. The loss in customers in the additional side is an additional issue that the two-sided platform will need to be considered in terms of its future total profits and therefore will have an impact on the future actions it would take. Hence, a free high technology platform would think much more carefully about compromising quality given the proportionately larger loss of customers. Logically, it would rather work on increasing quality so it can increase its clientele to a proportionately larger extent. This in conjunction with the fact that there are no monetary switching costs for users to switch to other platforms, free high technology platforms are likely to think twice before making any compromises on quality.⁹²

Therefore, the motivation to keep innovation and quality to a high level appears even graver in free high technology markets given some further pricing theories on the operation of two-sided platforms in general. There are particular pricing methods that can be taken advantage of in a lot of two sided markets to increase profits for the platform, but cannot be taken

⁹² In Chapter 3 we will see how the EU Commission espouses the idea that switching costs are really low in free high technology markets and therefore competitive pressure is high. Although the literature and this thesis does not fully agree with this, it cannot be denied that the specific lack of monetary costs for users to some extent puts free high technology companies under pressure to be more innovative than their competitors. There are however, other types of switching costs that are high in these markets which will be discussed in Chapter 3.

advantage of by free high technology markets. For example, some two-sided platforms can charge both sides to maximize profits,⁹³ but in free platforms, one side is never charged.

Hence there is more of a reason to keep innovation high to keep attracting more users so that it can increase its value to other sides of the platform to increase profits.

Another phenomenon of price effects in some platform industries can also help explain how the platform can manage to raise prices significantly on the paying side (and thereby increase revenues) whilst not adversely affecting the size of the clientele on the free side. Again, this is by keeping the level of innovation high. It has been suggested that where prices are very low (or non-existent) on one side of the market and a large number of clients are present on that side, a price rise on the other side does not necessarily mean that there will be a reduction of demand on the other side.⁹⁴ The fact that there is a massive clientele on the low priced side makes the demand on the other side of the market inelastic; hence even if prices are put up on the higher priced side demand on that side may lessen only to a minor extent (and perhaps not lessen at all) because the value of the large clientele on the other side is valued highly and the higher price tag may be considered worth it.⁹⁵ For example, a very well-known and popular online music streaming service which has a significant number of users/listeners could raise the price for advertisers without losing a proportionally equal number of advertisers as most advertisers are likely to pay the higher price due to the value they put on the large database of

⁹³ A good example of this is the video game industry. Both players and video game creators need to pay the platform and this is how the platform makes its own profits. However, in the case of free high technology, the custom is to never charge anything to the user side. Hence, in order for the platform to make high profits, it needs to charge advertisers very significant sums. The only way they can do this is if they can provide the advertisers with a very large number of users to view their advertisements. In order to attract a large number of users in the first place, it is very important to keep quality and innovation high. In the video game industry, the users pay for a console and games and are therefore financially invested in the platform. Free users cannot be locked-in this way and the only way to keep them is a good amount of innovation.

⁹⁴ Janusz Ordover ‘Comments on Evans & Schmalensee’s “The Industrial Organization of Market with Two-Sided Platforms”’ (2007) 3(1) Competition Policy International 180, 185

⁹⁵ Ibid

listeners; demand is quite inelastic. But again this is only possible if there is a large number of users on the site who are kept attracted by an innovative service. This can therefore explain why free high technology markets would have high motivations to provide increasingly innovative services. Such a model is also somewhat reminiscent of widely used social networks and search engines, where the user database is massive and therefore is a great attraction for advertisers despite the price of advertising; this phenomenon is somewhat reflected by the constantly rising advertising revenues of social networks and search engines.⁹⁶ Of course, in order to keep the user database massive, again it would be reasonable to conclude that the platform would have to maintain and improve the quality of the service especially given that there is no price competition.

Finally, theory on multi-homing and single-homing also explains how some platforms operate to attract the paying side by focussing always to keep the side that pays nothing happy. The theory purports that a two-sided platform will usually aggressively target the single-homing side; in other words the platform is more likely to offer significantly lower prices (or even prices of zero) to the single-homing side in order to attract and maintain their presence on the platform.⁹⁷ In the case of multi-homing there is no need for the platform to provide as much significant incentives (for instance in the form of lower prices) as multi-homers use several platforms at the same time. However, with single-homing, once a significant part of the single-homing side is captured through such aggressive targeting, they provide a large externality to the multi-homing side of the market and will in then turn attract

⁹⁶ See Miriam Gottfried, 'Facebook and Google: The \$230 Billion Question' (*The Wall Street Journal*, 12 April 2016) < <http://www.wsj.com/articles/facebook-and-google-the-230billion-question-1460485612> > accessed 26th May 2016

⁹⁷ See B Caillaud & B Jullien 'Chicken and Egg: Competition among Intermediation Service Providers' (2003) 24 RAND J Econ 309

more multi-homers to the platform.⁹⁸ Again, attracting single-homers who do not pay will come down to the quality of service provided by the platform, which needs to be high to maintain them.

2.2.4 '£0' price of free high technology product/service and innovation

In this section so far, we have focused considerably on showing that large free high technology companies are capable of and likely to provide a significant amount of innovation to the benefit of consumers more so than a situation of multiple smaller competitors would be able to. However, the notion that all large companies in general (whether or not they are in the free high technology industry or they are two-sided markets) with massive leading market share are good for consumers in terms of innovation has been present in the literature for quite some time.⁹⁹ So one challenging question that could arise is why should the free high technology market be considered as uniquely separate from the other industries when other industries can also be just as innovative with large monopolistic companies?

Well the first point to make here is the fact that the services are not only innovative but they have no monetary cost to the consumer in this particular industry.¹⁰⁰ That is a characteristic

⁹⁸ Ibid

⁹⁹ See for example Joseph Schumpeter *Capitalism, Socialism and Democracy* (Harper 1942); Richard Gilbert, 'Looking for Mr. Schumpeter: Where Are We in the Competition-Innovation Debate', in Adam B. Jaffe, Josh Lerner and Scott Stern (eds), *Innovation Policy and the Economy*, vol 6 (Cambridge, MA: MIT Press, 2006) p.159- although the author in this article does not come to any definitive conclusion on whether monopolies are good for innovation, he clearly states that there is no evidence to show that competition encourages incentives to innovate. There is however, definitely evidence to show that the larger the business, the more likely investment in research and development will be higher (indicating a better possibility of innovation); J Sidak & D Teece, 'Dynamic Competition in Antitrust Law' (2009) 5 J.C.L.& E. 581- the authors suggest that dynamic efficiencies of large companies need to be taken into consideration as they can mean better innovation for consumers at the end;

¹⁰⁰ Such a practice is not to be confused with predatory pricing. See *Evermaps v. Google*, Paris Court of Appeals, November 25, 2011- it was acceptable and rational for multi-sided market platforms to offer free products/services on one side of the market as long as they recovered their costs from a paying side (in

that immediately sets it apart. However, it has been argued that consumers in general would rather choose an expensive product that is highly innovative, than a cheaper product that is of mediocre quality.¹⁰¹ In other words, price is an irrelevant factor in highly innovative industries and so the fact that consumers are receiving a service that is free should not set the free high technology industry apart. Of course, this would obviously be a broad generalization to make especially given that if one were to rephrase the idea to say that consumers would not care how high prices got as long as it was innovative, it would not sound convincing. However, it would of course also be reasonable to say that should the price increase match or stay below the level of improvement in innovation, consumer benefit at the least remains intact.¹⁰² On the other hand this gives rise to another problem which is the consumer's inability to assess quality in relation to price.¹⁰³ It is unlikely to be easy to make such an assessment.¹⁰⁴

Therefore, in markets which are highly innovative and involve companies with increasing market power but charge for the service, there can be uncertainty with regards to the price/quality issue. Especially in the case of a monopolist which has more relative unfettered

this case advertising revenues). Also this business model is used by competitors in the same industry throughout.

¹⁰¹ See Mark A. Lemley, 'Industry-Specific Antitrust Policy for Innovation' (2011) *Colum. Bus. L. Rev.* 637. The author indicates that innovation is probably the largest driver in an economy more so than other factors (like lowering prices). He asks a rhetorical question 'Closer to today, ask yourself whether you would rather have a monopolistically-priced iPod or a perfectly competitive market for 8-track tapes?' He appears to be making a point that prices may not matter as much if the product is really advanced. Note however, that he does not fully support the notion that innovation is spurred by monopolistic markets. It varies from industry to industry.

¹⁰² See for example Organisation for Economic Co-operation and Development(OECD), 'The Role and Measurement of Quality in Competition Analysis' (DAF/COMP(2013)17, Oct. 28, 2013) 44, available at <http://www.oecd.org/competition/Quality-in-competition-analysis-2013.pdf> ; 'In well-informed and effectively competitive markets, price plays an important role in signalling quality differences to consumers and enabling them to make rational decisions about the trade-off between higher price and higher quality'. Note here that consumers in competitive markets are considered to be able to assess quality and relate it to the price.

¹⁰³ A Ezrachi & M Stucke 'The Curious case of Competition and Quality' (2015) *JAE* 1, 2-3- the authors provide a comprehensive summary of the problems associated with assessing quality.

¹⁰⁴ Ibid

ability to raise prices, there is a risk that the price increase will be considerably above the level of innovation.¹⁰⁵ In that case consumer benefit is likely to be reduced despite any increases in innovation. However, in the free high technology markets, the price is always £0. So any innovations arising from free high technology monopolies are more likely to result in overall increases in consumer benefit; there is no risk of a price increase that would offset that consumer benefit.

For these reasons, the freeness of the technology should be considered as the additional factor which further separates the free high technology industry from other innovative industries. The £0 cost price shows that it is likely to deliver more consumer welfare with its innovations than other technology industries can.

2.2.5 Big Data, Privacy Risks and Consumer Welfare in a competition law framework perspective; does this negate the idea that free high technologies have no costs to consumers?

We have so far discussed how free high technologies are good for consumer welfare. However, we acknowledged before that whilst there is no monetary cost to the consumer, there are other costs according to recent literature in terms of privacy. We discuss these in this section as this can potentially negatively affect consumer welfare within the context of big data. However, before we move on to explaining big data it is important that we mention

¹⁰⁵ See also how the same issue can happen in a competitive market. See R Gilbert & S Sunshine, 'Incorporating Dynamic Efficiency Concerns in Merger Analysis: The Use of Innovation Markets' (1995) 63 Antitrust L.J. 569, 572- 'Even when consumers unambiguously prefer more attribute of a product, the net effect on consumers is indeterminate when costs are taken into account. For example, even though consumers value greater product diversity, competition among firms to win consumers by providing a greater number of products can result in higher costs that make consumers worse off'. The authors appear to refer to the higher cost pushing price above a level where it goes beyond the value provided by the product to consumers. Hence, there is always some uncertainty as to the appropriateness of the price relative to the value of the good. In the case of goods/services that are free, consumer benefit will almost definitely be high since there is no monetary cost passed to the consumer.

an important point about how we look at privacy within this section. When we speak of privacy risks and intrusions or anything similar in meaning, we do not refer to actual breaches of privacy law as those are already covered by protective laws. Privacy risks and intrusions in this section refer instead to the potential reduction in privacy which leads to a reduction in consumer welfare. For example, data collected from search users utilised for highly targeted advertisements may reduce users' sense of privacy; but this is not necessarily a breach of privacy law as long as the processing of the data in that way has been agreed by users and complies with data protection law. It can however, be perceived to be a reduction in consumer welfare. That is what we are focused on here as that is more relevant to competition law.

Big data 'refers to large amounts of data produced very quickly by a high number of diverse sources...either...created by people or generated by machines...' ¹⁰⁶ and is subject to 'cost-effective, innovative forms of information processing for enhanced insight and decision making.' ¹⁰⁷ All free high technologies collect such vast amounts of data and process them efficiently in a way to provide a particular service. Search engines and social networks for example engage in it to deliver targeted advertisements. A lot of this big data is information

¹⁰⁶ European commission 'Digital Single Market; Big Data' available at <https://ec.europa.eu/digital-single-market/en/big-data> accessed on 28 July 2017

¹⁰⁷ Nir Kshetri 'Big data's impact on privacy, security and consumer welfare' (2014) 38 Telecommunications Policy 1134- the author has extracted this from another source referred to in a footnote; Also see big data's generally described characteristics- the four 'Vs': velocity, variety, volume and veracity (https://oup.silverchair-cdn.com/oup/backfile/Content_public/Journal/jeclap/8/6/10.1093_jeclap_lpx039/2/lpx039f01.png?Expires=1501871021&Signature=Rz9wmEn8egFW~~QrFC-jhuAbwHsN7qpBECvQxP8KdZmCumr4a7y51hlX8~7XHEVNv0bNrt8HFXyct~YqkoY39GPTUw-dxj7Q~7bpSz4xoKWCv1ZxsE3zUGTAAZ5-sJREnXXYtOVg4jjoBPlx1q~SWMCqc4IlgFIE2jn9cwVeYAt5sNfgYqVRZloDQGYTe5XUdTU3g341IKxZNHqF1WsORrsIKhcMxXhhj89CGm-sO5-pfCK5nWGf-DtKqrYqqrEN-gN-PH6BxSOD0Aex4yOjOhUd2QOwk7x29lClu0zbVUEIBS3iPCn8cfdqyREzBWAD0gaQdqfEbT2rLuQ9h~JMiQ&Key-Pair-Id=APKAIUCZBIA4LVPAVW3Q)

on consumers/users that is personal. In other words the privacy of users is put at risk in exchange for these zero-price services.

However, it is important to understand at this point that the big data issue can be looked at in two different contexts that are important to distinguish from each other. Firstly, it can be looked at from the angle of privacy. A merged company becomes larger in totality and is able to collect more personal information than previously, causing more possible intrusions of privacy. This is what we are concerned with in this section; big data and how it affects consumers' privacy.

Secondly, it can be looked at it in the context of market power; a larger merged company with access to larger sets of personal information can provide a more tailored service to consumers, hence having a huge competitive advantage over its competitors. We expand on this in section 3.4.1 and as will be seen is an important part of our evaluation of the EU Commission's approach to free high technology investigations. However, it is not discussed in this section as here, we address the direct effect on consumer privacy as a result of big data as opposed to the notion of increased customisation for consumers.

Finally, before we continue, it is important to remind ourselves that this thesis is about understanding the EU Commission's limited approach to its analysis of substantive arguments in free high technology cases. As we will see throughout Chapter 3, the EU Commission has been lenient towards large digital companies. Therefore, the more likely explanation behind the EU Commission's approach is that it believes that the digital services are free and innovative. The theory that these services are not free because they cost in terms

of privacy of consumer data is an unlikely explanation behind the EU Commission's approach. If this was the case, the EU Commission would unlikely be lenient towards large digital companies. Given the scope and aim of the thesis, the big data and privacy issues are from a logical standpoint, irrelevant. However, the big data and privacy issues are prevalent in the current literature. They therefore need to be addressed to ensure that our premise for the next chapters that free high technologies are good for consumer welfare because they are free and innovative is not on shaky foundations.

We start by discussing the dangers posed by big data mentioned in the literature in the context of competition law. We then discuss the potential flaws and uncertainties in the theories that big data and privacy issues are to be part of competition analysis. We then proceed to explain why these issues should not negate our premise that free high technologies are good for consumers.

2.2.5.1 The potential risks of big data in the context of privacy

In this section we provide examples of risks to consumers as a result of big data that have been put forward in the literature.

One of the arguments is that there is too much personal information in the hands of companies that may not have the appropriate means of keeping that information safe.¹⁰⁸

¹⁰⁸ Ibid

Another example is that there is an asymmetry of information in the sense that digital companies would have more information on users and have an unfair disadvantage; by having access to so much detailed information on users' tastes and preferences, advertisements may become more persuasive by speaking to the particular user directly without the actual product or service actually meeting the needs of the user and it being unnecessary.¹⁰⁹ A specific instance could be an insurance company analysing data to find out that someone could potentially have a serious illness and then try to sell an unnecessary insurance policy to the user.¹¹⁰

Furthermore, there could be more effective price discrimination; with analysis of big data, companies would probably be able to figure out which consumers are willing to pay the highest prices and therefore charge them accordingly.¹¹¹ This is said to, overall, shift surplus from consumers to producers and potentially reduce consumer welfare.¹¹²

Finally, there is also the risk of the data analysis itself being erroneous and the analysis generating inaccurate conclusions on the subject of the data.¹¹³

¹⁰⁹ See for example, A Ezrachi & M Stucke 'The rise of behavioural discrimination' (2016) 37(12) ECLR 485, 490

¹¹⁰ Nir Kshetri 'Big data's impact on privacy, security and consumer welfare' (2014) 38 Telecommunications Policy 1134

¹¹¹ Howard A Shelanski 'Information, Innovation, and Competition Policy for the Internet' (2013) 161 U. Pa. L. Rev. 1663, 1680

¹¹² Ibid- the author cites this information from 'R. Preston McAfee, Price Discrimination (discussing the welfare effects of price discrimination), in 1 ISSUES IN COMPETITION LAW AND POLICY 465, 480-83 (ABA Section of Antitrust Law ed., 2008)'

¹¹³ For more information, please refer to K Waterman & P Bruening 'Big data analytics: risks and responsibilities' (2014) 4(2) IDPL 89.

2.2.5.2 Problems with the privacy risk argument in relation to consumer welfare and competition law

As we have seen, the current literature is besotted with the lack of privacy as a cost to users and consumers for an otherwise fully free product/service. However, it is not exactly clear and definitive how it affects consumer welfare in the specific context of competition law.

One of the most obvious issues is the question of whether consumers are indifferent to privacy issues. If they are, that is likely to mean that the level of associated consumer welfare is not affected by privacy issues in the first place. Those who do not want to interfere in privacy issues believe so because they believe that if consumers really were concerned with privacy, they would show it through their actions; but they do not as consumers continue using digital services that collect data on them.¹¹⁴ However, there is growing evidence to suggest that in reality most consumers are concerned with privacy issues and would rather want to give up less privacy for the very services they receive from these digital companies; in other words, at best, consumers are resigned.¹¹⁵

Whilst this is the case, we need to also consider the counterfactual where all digital services stop collecting data from consumers. Could this affect the quality of the service adversely?¹¹⁶ Would greater protection from privacy risks lead to a considerable decline in the quality of search results? Would consumers then think that the high quality search results are definitely

¹¹⁴ M Stucke & A Grunes *Big Data and Competition Policy* (OUP Oxford 2016) 58

¹¹⁵ A Acquisti, L John & G Loewenstein 'What is Privacy worth?' (2013) 42(2) *The Journal of Legal Studies* 249; Inge Graef *EU Competition Law, Data Protection and Online Platforms: Data as Essential Facility* (Wolters Kluwer 2016) 322; T Singh & M Hill 'Consumer privacy and the Internet in Europe: a view from Germany' (2003) *Journal of Consumer Marketing* 20(7) 634; M Stucke & A Grunes *Big Data and Competition Policy* (OUP Oxford 2016) 57

¹¹⁶ We will see in Chapter 3 how, for example, search engines are able to provide much higher quality search results because of the collection and analysis of big data.

worth giving up a level of protection from privacy risks? If quality does go down significantly, then there is a case to say that protections from privacy risks need to be lowered to increase consumer welfare. Hence, such questions need to also be considered.

However, the problem is that currently there is no way of ascertaining the answer to these questions¹¹⁷ and consumers do not have access to enough information that would allow them to assess what level of privacy is worth giving up for the zero-price service in return.¹¹⁸ Similarly a competition authority which has to prove harm, would find it difficult to analyse the privacy issue.¹¹⁹

Secondly, competition law can only be concerned with consumer welfare from a particular perspective. It is only when there is an increase in market power and there is a possibility of reduced effective competition in the market that competition law comes into play. In other words, in terms of Big Data, a relevant question would be is consumer welfare reduced or increased due to the potential foreclosure of competitors? Reflecting on this question, let us take a scenario where the authorities have blocked a merger or a unilateral action of a

¹¹⁷ G Colangelo & M Maggolino 'Data Protection in Attention Markets: Protecting Privacy through Competition?' (2017) 8(6) JECL&Pract 363- 'So far, as the privacy paradox shows, no empirical study has clearly established that privacy-sensitive consumers would pay to use more privacy-friendly goods or would accept less-developed services and products in exchange for more privacy-enhancing solutions.'

¹¹⁸ UK Competition and Markets Authority 'The Commercial Use of Consumer Data: Report on the CMA's Call for Information'(CMA June 2015) paragraph 4.39 available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/435817/The_commercial_use_of_consumer_data.pdf >accessed on 30th July 2017

¹¹⁹ M Stucke & A Grunes *Big Data and Competition Policy* (OUP Oxford 2016) paragraph 9.13; Also see Organisation for Economic Co-operation and Development(OECD), 'Exploring the Economics of Personal Data: A Survey of Methodologies for Measuring Monetary Value' (OECD Digital Economy Papers No. 220, DSTI/ICCP/IE/REG(2011)2/FINAL April 2 2013) available at <http://www.oecd-ilibrary.org/docserver/download/5k486qtxldmq-en.pdf?expires=1501439502&id=id&accname=guest&checksum=67A642777CCE70D4E88C9EBAF868FD9C> accessed on 30th July 2017- when the benefit is direct and free, like with search engines, it is hard for competition authorities to assess the net value when there is low privacy protection.

dominant company. By doing so let us also say that it has prevented the foreclosure of some competitors and also allowed a prevention of decreased potential for new entrants to enter the market. From a privacy perspective, this is an auspicious situation as it means that competitors who offer more privacy and better handling of big data to enter the market and benefit consumers are provided a better chance to compete in the market.¹²⁰ This seems to, for example, be some of the thinking behind the German Cartel Office's approach to its investigation into the conditions imposed by Facebook on its users in terms of the amount of data collected on them.¹²¹ The present accusation appears to be that Facebook is abusing its dominant position by forcing users to accept a high level of intrusion of privacy.¹²²

The only problem is that by finding abuse or blocking a merger the privacy issue will not be resolved as the majority of players in the industry collect data and depend on it for survival.¹²³ For example, Google's main competitors Bing and Yahoo! both collect data as well. It has been said that what happens in such industries is that the incumbent comes up with a particular business model. In the case of free high technologies this model involves collecting increased amounts of data for targeted advertising which generates revenues.

¹²⁰ Howard A Shelanski 'Information, Innovation, and Competition Policy for the Internet' (2013) 161 U. Pa. L. Rev. 1663, 1691

¹²¹ A White & K Matussek 'Facebook investigated by Germany's Federal Cartel Office over claims it 'extorts' personal data from users' (*Independent* 3 July 2017) available at <http://www.independent.co.uk/news/business/news/facebook-germany-cartel-office-personal-data-user-accounts-extorts-antitrust-eu-social-media-network-a7820331.html> accessed on 30 August 2017

¹²² *Ibid*

¹²³ See for example [Marixenia Davilla](#) 'Is Big Data a Different Kind of Animal? The Treatment of Big Data Under the EU Competition Rules' (2017) 8(6) *JECL&Pract* 370- the author alerts us to the fact that whilst the Bundeskartellamt is investigating Facebook for unfair privacy terms as a possible abuse of dominance, competitors have similar privacy policies and do not offer better alternatives in terms of privacy protection. Also see Inge Graef *EU Competition Law, Data Protection and Online Platforms: Data as Essential Facility* (Wolters Kluwer 2016) 323- one way of making the privacy issue succeed, is by setting product variety or choice as a standard that competition policy is to achieve. In that way, authorities would limit actions on behalf of incumbents that reduce competition as it would simply reduce the number of competitors who are willing to offer more privacy. But as we see, the issue is that there are hardly any alternatives that do provide better privacy options in the first place.

Because this model allows the incumbent to be successful, smaller competitors follow suit and adopt the same model.¹²⁴ They also start collecting more data to improve quality and develop enhanced targeted advertising. This is also a reason that it has been suggested that increased data protection may actually have a negative effect on users; not only could quality of service go down,¹²⁵ but stricter data protection will prevent smaller competitors from providing an equally good service.¹²⁶

Furthermore, apart from the big players, a variety of websites associated with small companies collect data on users.¹²⁷ For example, many inform consumers that the continued use of the website is conditional upon the placement of cookies on user computers. In other words competition law cannot directly remedy the big data issue.

Stucke and Grunes who have both written extensively on Big Data strongly indicate this as a problem.¹²⁸ Where consumers are concerned with the issue of privacy and data being collected on them, what would be expected to happen is that market forces would create competitors who provide better privacy and require less data collection for consumers.¹²⁹

¹²⁴ Anca D Chirita 'Google's Anti-Competitive and Unfair Practices in Digital Leisure Markets' (2015) 11(1) *The Competition Law Review* 109, 115

¹²⁵ Inge Graef *EU Competition Law, Data Protection and Online Platforms: Data as Essential Facility* (Wolters Kluwer 2016) 303

¹²⁶ J Brill 'The intersection of consumer protection and competition in the new world of privacy' (2011) 7(1) *Competition Policy International* 18

¹²⁷ For example see K Cukier & V Mayer-Schoenberger 'The Rise of Big Data' (2013) 92(3) *Foreign Affairs* 28, 37- 'lesser known "data brokers," such as Acxiom and Experian—are amassing vast amounts of information on everyone and everything.'

¹²⁸ M Stucke & A Grunes *Big Data and Competition Policy* (OUP Oxford 2016) 52; Also if you consider Howard A Shelanski 'Information, Innovation, and Competition Policy for the Internet' (2013) 161 *U. Pa. L. Rev.* 1663, 1691- although the author generally believes competition between digital platforms can eventually lead to alternatives that provide better privacy, there is still a level of intervention from consumer protection law required to resolve the privacy issue.

¹²⁹ K Cukier & V Mayer-Schoenberger 'The Rise of Big Data' (2013) 92(3) *Foreign Affairs* 28, 37

However, this has not happened; there is currently a lack of such competitors who provide privacy-enhancing services.¹³⁰ In other words, even if competition authorities were to, for example, prevent mergers of large digital companies that would potentially combine their huge big databases, consumers would simply be left with alternatives who engage in the same practice of collecting data on them. So the issue of privacy is not resolved.¹³¹

This seems to be the reason that the EU Commission has not let the privacy issue determine its final decision in digital cases; *Google/DoubleClick*,¹³² *Facebook/Whatsapp*¹³³ and *Microsoft/LinkedIn*¹³⁴ involved the potential combination of huge sets of data on users and consumers, but all mergers were approved anyway.¹³⁵ For example, in *Google/DoubleClick* it appeared that the issue of privacy was acknowledged but was clearly indicated not to be a competition issue; ‘irrespective of the approval of the merger, the new entity is obliged in its day to day business to respect the fundamental rights recognised by all relevant instruments

¹³⁰ Peter Hustinx ‘Preliminary Opinion of the European Data Protection Supervisor; Privacy and competitiveness in the age of big data: the interplay between data protection, competition law and consumer protection in the Digital Economy’ (March 2014) page 11 available at https://edps.europa.eu/sites/edp/files/publication/14-03-26_competition_law_big_data_en.pdf accessed on 27th July 2017

¹³¹ M Ohlhausen & A Okuliar ‘Competition, Consumer Protection, and the right [approach] to privacy’ (2015) 80 Antitrust L J 121, 155- If blocking the merger or unilateral action cannot resolve the privacy issue, then competition law is not the appropriate body of law that is to deal with such issues.

¹³² *Google/DoubleClick* (Case No COMP/M.4731) [2008] paragraph 368 available at http://ec.europa.eu/competition/mergers/cases/decisions/m4731_20080311_20682_en.pdf accessed on 24th July 2017

¹³³ *Facebook/Whatsapp* (Case No COMP/M.7217) [2014] available at http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf accessed on 23rd July 2017

¹³⁴ *Microsoft/LinkedIn* (Case No.M.8124)[2016]available at http://ec.europa.eu/competition/mergers/cases/decisions/m8124_1349_5.pdf accessed on 28 August 2017

¹³⁵ G Colangelo & M Maggolino ‘Data Protection in Attention Markets: Protecting Privacy through Competition?’ (2017) 8(6) JECL&Pract 363

to its users...(such as) privacy and data protection.’¹³⁶ Hence, there are already fundamental rights that protect users from any extensive invasions of privacy.

The most the EU Commission appears to have stated in terms of privacy issues is that the level of privacy can affect the quality of goods and services from a consumer point of view.¹³⁷ However, there was no evidence to suggest that the low levels of competition in the market to provide privacy enhancing service was due to any anticompetitive agreements or abusive acts.¹³⁸ Another way to look at this is that increasing the level of competition in the market will not necessarily affect the availability of privacy enhancing services. This again highlights the problem recognized by Stucke and Grunes that both incumbents and competitors in the market are simply not offering better levels of privacy; this can therefore only be resolved by direct regulation.¹³⁹

It is just difficult to see how competition law can resolve such privacy issues. But such difficulty is not just unique to the privacy issue. There could be many situations where it would be peculiar for competition law to interfere in a way to remedy a problem that consumers would face even if there was more competition in the relevant market. For example, let us say there is a merger between Burger King and McDonalds in the market for

¹³⁶*Google/Doubleclick* (Case No COMP/M.4731) [2008] paragraph 368 available at http://ec.europa.eu/competition/mergers/cases/decisions/m4731_20080311_20682_en.pdf accessed on 24th July 2017

¹³⁷ See for example, *Facebook/Whatsapp* (Case No COMP/M.7217) [2014] paragraph 87 available at http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf accessed on 23rd July 2017

¹³⁸ G Colangelo & M Maggolino ‘Data Protection in Attention Markets: Protecting Privacy through Competition?’ (2017) 8(6) JECL&Pract 363

¹³⁹ Wolfgang Kerber, ‘Digital Markets, Data, and Privacy: Competition Law, Consumer Law, and Data Protection’ (2016) 11 Journal of Intellectual Property Law & Practice 856. Also see M Ohlhausen & A Okuliar ‘Competition, Consumer Protection, and the right [approach] to privacy’ (2015) 80 Antitrust L J 121, 156

fast food burgers. There is without question, overwhelming evidence to suggest that such food is a long term health risk for consumers. Furthermore, consumers are fully aware of this.¹⁴⁰ From a consumer welfare point of view, it would probably be best to abolish the industry all together. But it is very hard to picture a competition law framework designed to remedy the health scourge posed by the food directly. It cannot, for example, make the merger conditional on the two companies lowering the fat and salt content of their burgers and fries; it may however, make it conditional on them pledging to never engage in exclusivity practices by for instance, preventing Coca Cola from selling to competing burger fast-food restaurants who may depend on their supplies to be an effective competitor in the market.¹⁴¹ In other words, the most a competition law framework can do is ensure a better chance of competition, which in turn may enable the likely entrance of a healthier competitor. But there is no guarantee that a healthier competitor will enter the market. In the absence of this, competition law would have to allow both incumbents and competitors to continue serving unhealthy junk food and can do nothing about it. There is separate legislation, however, that can be imposed to protect consumers in such situations.¹⁴²

¹⁴⁰ See for example Allison Schiff ‘Do consumers care about privacy in practice? The FTC digs into the debate’ (*Ad Exchanger* 14 January 2016) available at <<https://adexchanger.com/data-exchanges/consumers-care-privacy-practice-ftc-digs-debate/>> accessed on 30 July 2017 – the author here draws a comparison between unhealthy food and privacy; “There seems to something more complex at play here and I think we see it in other contexts like, ‘I care about my health, but I still eat a cheeseburger,’ or ‘I care about the environment, but I still drive a four-wheel drive,’” Tene said. “Yes, consumers are ignorant and they just don’t know, but I think [Turow’s] surveys and research show that the more informed people are, the more resigned they become. Maybe it’s better to just be blissfully ignorant.”

¹⁴¹ G Colangelo & M Maggolino ‘Data Protection in Attention Markets: Protecting Privacy through Competition?’ (2017) 8(6) *JECL&Pract* 363- ‘...antitrust law focuses on business practices that worsen effective competition and not on those market structures and features that determine a failure in the supply of a given product or service.’ In other words market failures that do not stem from the level of competition in the market are not to be remedied by competition law. The lack of healthy versions of fast food in the same relevant market cannot be fixed by competition law.

¹⁴² See for example Nick Trigg ‘UK pushes ahead with sugar tax’ (*BBC*, 5 December 2016) available at <<http://www.bbc.co.uk/news/health-38212608>> accessed on 30th July 2017

2.2.5.3 Privacy issues and the premise that free high technologies are good for consumers

There are quite a few uncertainties as to the privacy issue which make it unreasonable for us to allow it to negate the premise that free high technologies are good for consumers in a thesis about understanding the EU Commission's unique approach to analysis.

Firstly, the issue of prices going up for consumers and making them purchase unnecessary products due to companies tracking them and collecting data on them is excluded from the scope of this thesis. We are concerned with free high technologies where there are no prices. Hence one of the remaining privacy related problems this thesis would be concerned with appears to be the sensation of discomfort and insecurity that someone feels when releasing their data. This is of course a legitimate problem that needs to be resolved; personal data in the wrong hands can be dangerous. However, how this is a competition law issue is difficult to understand. Both large and small firms collect equally sensitive and personal data on users and consumers. It is surely much easier and effective to have, for example, cyber security regulation directly oblige all companies to put up effective protective barriers around the data they collect to ensure it does not get into the wrong hands. Competition law frameworks would be slow and ineffective in comparison. The most it can do is prevent an incumbent from getting larger, allow more competition in the market and hope that at least some of the competitors will offer better privacy to users. There is no certainty as to whether this will actually happen. Instead, direct regulation would compel all incumbents and competitors to offer better privacy and security. They would have no choice.

Secondly, the most gaping problem is the fact that competitors, let alone incumbents, currently do not focus on providing better privacy. They all collect data on users and consumers. More competition is unlikely to resolve the privacy issues. However, there are some theories of harm that show that increases in market power can make privacy levels even lower than they already are. For example, a merger between two big digital companies would lead to more data collected on individuals meaning a higher level of privacy being invaded.¹⁴³ However, there is very little clarity as to what the adverse effects on consumers would be.¹⁴⁴ The dissenting opinion of Pamela Jones Harbour in the Google/DoubleClick FTC investigation states:

‘The truth is, we really do not know what Google/DoubleClick can or will do with its trove of information about consumers’ Internet habits. The merger creates a firm with vast knowledge of consumer preferences, subject to very little accountability.’¹⁴⁵

It therefore appears uncertain in what ways digital big data companies harm consumers for services that they do not charge. Yes, they hold vast amounts of personal/sensitive data on users. But what practices or actions are they engaging in that actually harm consumers in terms of the use of data? Until these claims are specified and explained with relevant evidence, the notion that the increased encroachment on privacy through a merger or

¹⁴³Pamela Jones Harbour ‘In the matter of Google/DoubleClick F.T.C. File No. 071-0170; Dissenting Statement of Commissioner Pamela Jones Harbour’ (Federal Trade Commission, 20th December 2007) available at <https://www.ftc.gov/sites/default/files/documents/public_statements/statement-matter-google/doubleclick/071220harbour_0.pdf>accessed on 3rd August 2017

¹⁴⁴Ibid

¹⁴⁵Ibid 10

unilateral action that increases the incumbent's trove of data, would not be based on solid foundations.

However, in fairness, it may have been convincingly shown that the large collection of data threatens fundamental civil rights and ability to participate in political life and leads to discrimination.¹⁴⁶ As indicated earlier it increases the risk of cyber incidents in the form of data breaches.¹⁴⁷ Whilst it would be tempting and interesting to delve into these issues further, these are again beyond the scope of this thesis. The reason goes back to the same conclusion that competition law is unable to cover such issues. Protection of fundamental rights is considerably beyond the remit of competition law and a recent example of a competition authority case may help illustrate this. Below, we consider a case concerning media plurality which, whilst not formally a fundamental right, is considered very important for keeping citizens well-informed in a well-functioning democracy.¹⁴⁸

The UK Competition and Markets Authority (CMA) is currently investigating the full acquisition of Sky plc by 21st Century Fox.¹⁴⁹ Interestingly, the merger has already been cleared at the European level, but the CMA had been asked by the Secretary of State to

¹⁴⁶ F Bosco, N Creemers, V Ferasaris, D Guagnin & B Koops 'Profiling: A persistent core issue of Data Protection and Privacy' in S Gutwirth, R Leenes & P de Hert (eds) *Reforming European Data Protection Law* (Springer 2015) p 10 & 15

¹⁴⁷ G Skoumu & L Leonard 'On-line Behavioural Tracking: What may change after the Legal Reform on Personal Data Protection' in S Gutwirth, R Leenes & P de Hert (eds) *Reforming European Data Protection Law* (Springer 2015) 45

¹⁴⁸ The Office of Communications (Ofcom) 'Measurement framework for media plurality: Ofcom's advice to the Secretary of State for Culture, Media and Sport' (5th November 2015) 1 available at https://www.ofcom.org.uk/data/assets/pdf_file/0024/84174/measurement_framework_for_media_plurality_statement.pdf accessed on 28th November 2017

¹⁴⁹ Competition & Markets Authority (CMA) 'ANTICIPATED ACQUISITION BY 21st CENTURY FOX, INC OF SKY PLC -Issues statement' (10th October 2017) available at <https://assets.publishing.service.gov.uk/media/59db8a2840f0b63118216841/fox-sky-issues-statement.pdf> accessed on 25th November 2017

further consider whether the merger would be in the public interest in the context of genuine commitment to broadcasting standards objectives and sufficient media plurality.¹⁵⁰ The Secretary of State has the power to do this under Article 5 of the Enterprise Act 2002 (Protection of Legitimate Interests) Order 2003 (the Order).¹⁵¹ Furthermore, the CMA has made it very clear that it is not investigating competition issues in terms of this merger.¹⁵² The scope of its investigation is very different here.

Some compelling inferences can be drawn from this on the scope of competition law. Firstly, it appears that media plurality would not be considered a competition law issue. Otherwise the CMA or European Commission would have already considered it on their own accord as part of their regular investigations. However, instead the Secretary of State had to use specific powers to refer the case to the CMA in order for media plurality to be specifically investigated.

What could this say about competition authorities' ability to consider privacy issues and effect on fundamental rights? One could argue that compared to these issues, media plurality can be considered much closer to the scope of competition law issues. If competition is reduced, it automatically means fewer players in the market which then reduces plurality of persons in control of media. There would be fewer viewpoints available to people, who would then likely suffer from a smaller number of biased viewpoints. As consumers, this is a loss and a negative for consumer welfare.

¹⁵⁰ Ibid Para 9

¹⁵¹ Ibid Para 7

¹⁵² Ibid Para 10

Of course, the analysis is much more complicated and sophisticated than this and requires a consideration of how much particular media proprietors exercise influence on the editorial viewpoint of the news.¹⁵³ However, the point is that if media plurality itself is not considered a competition law issue, how can privacy and fundamental rights be? As explained, at least with media plurality one can draw a connection with the number of competitors in the market and possibly link the idea of well-informed citizens with consumer welfare. Privacy and fundamental rights issues related to big data are a result of analysis that reaches beyond simply looking at the number of competitors in the market. It requires the consideration of other elements such as thoroughly analysing algorithms, how they work and how they may be adversely affecting our ability as citizens to make the best choices and act freely. It is quite apparent that such issues are way beyond the remit of the more conventional competition law focuses such as innovation and quality.

Finally, the CMA's current responsibility to determine whether Sky would have a genuine commitment to broadcasting standard objectives¹⁵⁴ can be compared to the idea of preventing mergers that lead to the combination of huge data sets in order to prevent any risk of data protection breaches. Here, the CMA is, so to speak, looking into preventing a merger to prevent any future likely breaches of regulations in the first place. It is considering whether to take pre-emptive action in the context of breaches of other areas of law. This would be unusual for a competition law investigation. Then again, the CMA has clarified that this is not a competition law case and therefore indicating that competition authorities do not look into the possibility of future breaches of other areas of law as part of their analyses. Similarly,

¹⁵³ Ibid Para 3

¹⁵⁴ Ibid Para 4

just because there is a substantial risk of a significant breach of data in the future due to the sheer size of a combined data set, competition authorities cannot use this as a reason to prevent a merger.

Given these uncertainties, the lack of definitiveness in the literature in terms of the actual harm to consumers and how competition law is not appropriately designed to remedy the privacy issue, we can confidently proceed on the premise that large free high technology companies are good for consumers as they provide free and innovative services.

2.2.6 The unique economics of free high technology; Disruptive technologies and resulting competitive pressure

Online free high technology industries are also characterized by the idea of disruptive technologies; these are technologies that replace the use of products and services provided by a dominant company.¹⁵⁵ Disruptive innovations are associated very often with such industries because it is the internet that is used to distribute/provide the services allowing for the quick, so to speak, disruptive momentum.¹⁵⁶ In other words, new innovative services can spread at extraordinary speeds facilitating the complete replacement of a previous category of products/services. The reason a particular emphasis must be placed on the phrase ‘previous category’ is the fact that it is important to understand that the disrupting technology does not merely provide a further improvement to the existing technology, but improves it to such an

¹⁵⁵ J Bower & C Christensen 'Disruptive Technologies: Catching the Wave' (1995) 73(1) Harv Bus Rev 43

¹⁵⁶ Directorate for Financial and Enterprise Affairs Competition Committee, Organisation for Economic Co-operation and Development ‘Key Points of the Hearing on Disruptive Innovation’ (DAF/COMP/M(2015)1/ANN8/FINAL, 2015) 2

extent that the previous technology becomes obsolete and non-substitutable with it.¹⁵⁷

However, note that the disruptive technology does not have to be initiated by a competitor; it can also be created and implemented by the dominant incumbent.¹⁵⁸ The reason behind the incumbent itself being able to push forward the disrupting technology is the notion that the fear of imminent disrupting technology from its competitors itself makes it paranoid and therefore motivates itself to keep pushing innovations forward.¹⁵⁹ The competitive pressure therefore comes from a potentially disrupting innovation that could take the entire market by surprise. This is therefore another reason why free high technology companies are constantly trying to innovate. A large dominant incumbent may not be worried about its own market share being taken by a competitor for its current generation of products/service, but instead is worried by any future or current entity (including current competitors) which could come up with a revolutionizing item that makes the current generation completely useless to consumers.

What is also interesting about market replacing disruptive technologies is that they have occurred in past high technology situations because the incumbent was solely focused on improving the current features of the current generation of technology.¹⁶⁰ Eventually the current generation technology would eventually reach the ‘S’ curve for quality improvement.

¹⁵⁷ Ibid 3- ‘Disruptions challenge - and sometimes bypass - existing products... Disruptions threaten incumbent firms and business models by reducing or destroying their market shares.’ Also see Jeffrey Eisenach & Ilene Gotts ‘In Search of a Competition Doctrine for Information Technology Markets: Recent Antitrust Developments in the Online Sector’ in Fabrizio Cugia di Sant’Orsola, Rehman Noormohamed & Denis Alves Guimarães(eds) *Communications and Competition Law- Key Issues in the Telecoms, Media and Technology Sectors* (Wolters Kluwer Legal 2014) 72

¹⁵⁸ Ibid

¹⁵⁹ GSMA & NERA Economic Consulting ‘A new regulatory framework for the digital ecosystem’(GSM Association 2016) 19
<http://www.nera.com/content/dam/nera/publications/2016/NERA_GSMA_Full_Report.pdf> accessed on 31 May 2017

¹⁶⁰ J Bower & C Christensen 'Disruptive Technologies: Catching the Wave' (1995) 73(1) Harv Bus Rev 43, 46

Beyond that, the only improvement would be a radically different technology that introduces the consumer to a new set of qualities that he/she would have never thought of; but once the consumer starts using it, it fulfils all his/her needs more effectively and replaces the older technology.¹⁶¹ A very current example may be the introduction of voice controlled artificially intelligent home assistants that can act as a search engine. Amazon appears to be the first to have introduced a successful version of this product and uses Bing's search engine. If more and more people started using Amazon's home assistant, not only would less people browse on PCs, laptops and smart phones and replace search through those devices, but it may also take all traffic away from Google. In that way an incumbent is replaced.

There are two important points to learn from the phenomenon of disruptive technology. Firstly, the looming threat of a disruptive technology keeps current incumbents on their toes and therefore they always have an incentive to invest in and develop new generation technologies that will improve consumer welfare. Secondly, there is a more important point to keep in mind within the entire context of the thesis. The competitive pressure comes from outside the current relevant market. It is important to note this. As mentioned at the beginning of the thesis, when we talk of competition in this thesis it refers to competition within the relevant market. We will see throughout Chapter 3 that all competition analyses fundamentally refer to competition within a specific product market. The analyses do not clearly take into account the competitive pressure that clearly exists from outside the relevant market which are presented by future potential disruptive technologies. Currently, the analytical framework is unable to systematically consider this type of competitive pressure.

¹⁶¹ Ibid

But as will be seen, a test will be suggested in Chapter 4 which is better able to consider competitive pressure from outside product relevant markets.¹⁶²

2.2.7 The unique economics of free high technology; Conclusion

The literature clearly explains how a single dominant platform in the free high technology sector can provide services that are not only free, but are also very innovative. The two-sided platforms can afford to offer end users a free product as they are able to charge the other side significant sums. In turn, it is absolutely vital for them to keep their services/products very innovative in order to maintain or increase their user base which can then be used as leverage to charge considerably to the paying side. In the end, it appears that consumers benefit from extremely low prices and perpetually improving innovation. This is of course, not just theory. The theory itself fits in nicely with the phenomena we observe today with regards to dominant search engines and social networks for example. Their services are free and they continually add new features at no extra monetary cost to the end-user.

At this point we have therefore established that there can be a positive or directly proportional relationship between the existence of a dominant platform, innovation and benefit to consumers in the specific context of free high technology. The next point of discussion is how EU competition law would consider this relationship. As will be seen, it appears to have an opposing view.

¹⁶² Inge Graef *EU Competition Law, Data Protection and Online Platforms: Data as Essential Facility* (Wolters Kluwer 2016) 74

2.3 How free high technology fits in with the general theory on the relationship between consumers and EU competition law

When one considers the literature on competition law, whether to a superficial or a meticulous degree, the prevalent mantra is that competition in markets is simply good for consumers.¹⁶³ One can already note the tension this would create with the theory we have already established on free high technology i.e. increased competition is unlikely to lead to higher benefit for consumers.

The European Competition Commission website emphasizes from the very beginning in simple terms that the reason for competition policy is to provide consumers with benefits;¹⁶⁴ more specifically it states that competition leads to lower prices for consumers, better quality, innovation in products/services and more choice.¹⁶⁵ More importantly this is officially stated in the ‘Guidance on the EU Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings.’¹⁶⁶ Furthermore, it aims to ensure that consumers ‘benefit from the efficiency and productivity which result from effective competition between undertakings.’¹⁶⁷ Hence, whilst efficiency and competition are goals that are to be achieved, the justification behind them as goals is the notion that they

¹⁶³ Hans Vedder ‘Competition Law and Consumer Protection: How Competition law can be used to protect consumers even better- or not’ (2006) 17(1) Eur. Bus. L. Rev 83-85

¹⁶⁴ European Commission ‘Competition; Overview: Making markets work better’
<http://ec.europa.eu/competition/general/overview_en.html> accessed 26 November 2016

¹⁶⁵ European Commission ‘Why is competition policy important for consumers’
<http://ec.europa.eu/competition/consumers/why_en.html> accessed 26 November 2016.

¹⁶⁶ Commission, ‘Communication from the EU Commission — Guidance on the EU Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings’ (2009/C 45/02) paragraph 5

¹⁶⁷ Ibid

bring benefits to consumers. Consumer welfare appears to therefore be the underlying value promoting efficiency and competition.

Similarly, the mergers regulations also work on the assumption that effective competition is good for consumers; for example, paragraph 29 of the regulations states as follows:

‘It is possible that the efficiencies brought about by the concentration counteract the effects on competition, and in particular the potential harm to consumers, that it might otherwise have and that, as a consequence, the concentration would not significantly impede effective competition...’¹⁶⁸

This indicates that the regulations view that concentration leads to a reduction in competition which then potentially harms consumers. Any resulting efficiency from the concentration may however, make up for the harm.

Note however, as mentioned before in the definitions section in Chapter 1, that both the guidance and regulations always stress that they are concerned with the protection of ‘effective’ competition as opposed to simply competition. The purpose of this is to show that the competition authorities will not simply protect competitors, but will only protect competitors who are good for competition. For example, if we specifically consider

¹⁶⁸ Council Regulation (EC) 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation) (2004) OJ L24/1 paragraph 29

paragraph 6 of the Article 102 Enforcement Guidelines the distinction between effective competition and competitors is strongly indicated;

‘...the EU Commission is mindful that what really matters is protecting an effective competitive process and not simply protecting competitors. This may well mean that competitors who deliver less to consumers in terms of price, choice, quality and innovation will leave the market’¹⁶⁹

It would therefore appear that the regulations would support the exit of competitors who are unable to benefit consumers. Hence, one might reasonably argue that competition regulations’ and guidance’s principles cannot be reduced to the simple notion that competition is good for consumers. However, as we will discover in Chapters 3 and 4, the EU Commission never directly assesses the specific harm to consumers and the quality and innovativeness of the products/services of the different competitors and the incumbent. This is because it is difficult to do so and in practice competition authorities simply presume harm based on a reduction in the number of competitors in the market. Also, counteracting efficiency claims have a history of failure in competition law cases and investigations.¹⁷⁰ Hence, in essence, whilst the guidance suggests that it does not protect competitors that do not benefit consumers, it ends up doing so.

¹⁶⁹ Commission, ‘Communication from the EU Commission — Guidance on the EU Commission’s enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings’ (2009/C 45/02) paragraph 6

¹⁷⁰ See for example Mitja Kocmut ‘The Role of Efficiency considerations under the EU Merger Control’ Working Paper (L) 09/05 < https://www.law.ox.ac.uk/sites/files/oxlaw/cclp_1_09-05.pdf > accessed on 5th May 2017

As we will also see next, there are other sources related to competition law that also suggest that the dominating principle is that competition is good for consumers.

The very official documents that form the seeds of, for example, UK competition law also refer fundamentally to the positive impact of competition on consumer interest. For instance, the UK government's white paper entitled 'A World Class Competition Regime' states the following:

'The importance of competition in an increasingly innovative and globalised economy is clear. Vigorous competition between firms is the lifeblood of strong and effective markets. Competition helps consumers get a good deal. It encourages firms to innovate by reducing slack, putting downward pressure on costs and providing incentives for the efficient organisation of production.'¹⁷¹

Furthermore, the UK Competition Commission in speaking generally about competition and consumers has stated that:

'...When working effectively, competition involves a process of rivalry between firms that strive to win customers' business by achieving the lowest level of costs and prices, developing new products or services or exploiting particular strengths, skills or other advantages to meet customer needs more effectively than competitors.'¹⁷²

¹⁷¹ Department of Trade and Industry 'A World Class Competition Regime' (White Paper, Cm. 5233 2001) paragraph 1.1

¹⁷² *Safeway plc and Asda Group Limited(owned by Wal-Mart Stores Inc); Wm Morrison Supermarkets PLC; J Sainsbury plc; and Tesco plc:A report on the mergers in contemplation* (Cm. 5950, September 2003), at para. 2.88

Hence, the rivalry between firms revolves around gaining customers, meaning that customers need to be pleased the most and provided with as much benefit as possible.

However, the most direct positive link drawn between competition and consumers is actually seen at the European Union level in the 1997 Green Paper on Vertical Restraints.¹⁷³ It states the following:

‘To further the interest of the consumer is at the heart of competition policy. Effective competition is the best guarantee for consumers to be able to buy good quality products at the lowest possible prices. Whenever in this green paper the introduction or protection of effective competition is mentioned, the protection of the consumer's interest by ensuring low prices is implied.’¹⁷⁴

Although the actual negative effect on consumers does not need to be ascertained to declare an abuse under Article 102 TFEU,¹⁷⁵ the main concern of the authorities is to ensure the protection of the competitive process which is then presumed to be good for the consumer.¹⁷⁶ In this sense, one could argue therefore that consumer welfare is still a primary concern for the competition authorities.¹⁷⁷ It is just that consumer welfare is positively tied to the

¹⁷³European Union Competition Commission *Green Paper on Vertical Restraints in EC Competition Law* (Com 96/721,1997) 17

¹⁷⁴ Ibid paragraph 13

¹⁷⁵ P Marsden & P Whelan “‘Consumer Detriment’ and Its Application in EC and UK Competition Law’ (2006) 27 (10) ECLR 569, 576

¹⁷⁶ Ibid 584

¹⁷⁷ Also see R O’Donoghue & A Padilla *The Law and Economics of Article 82 EC* (Hart Publishing Oxford 2006) 221- The authors argued that one could equate a, so to speak, test for effective competitive structure with a test for consumer welfare. If there is consumer harm there is also relevant harm to the competitive structure.

protection of competition; the protection of competition is equated to the protection of consumer welfare.¹⁷⁸ The protection of the competitive process therefore purportedly becomes a means (as opposed to a goal) to an end; the end being the protection of consumer welfare.¹⁷⁹

So far, we observe that the relationship between competition and the benefits to consumers is considered to be a directly proportional and positive one; it is believed that as competition increases so do the benefits to consumers.

We therefore already see how one of the fundamental assumptions on the relationship between benefit to consumers and competition could clash with the theory on free high technology. It is therefore possible that any application of competition provisions based on such an assumption to the free high technology industry could yield awkward results. For instance, with such an assumption, competition authorities are likely to conclude that consumer benefit is low in the industry due to the low level of competition as only high levels of competition can lead to high consumer benefit.

As we will see in Chapters 3 and 4 in more detail, quite similarly, another possibility is that the authorities, having observed a great amount of consumer benefit in the industry, would

Note however the word ‘relevant’. The authors therefore go on to indicate that harm to the competitive structure is irrelevant when that harm does not subsequently lead to any consumer harm. Hence, intervention on the part of the competition authorities cannot be justified where there is harm to the competitive structure of the market, but there is no harm to consumers.

¹⁷⁸ Ibid

¹⁷⁹ Philip Lowe ‘The Design of Competition Policy Institutions for the 21st Century- the Experience of the European Commission and DG Competition’ (2008) 3 Competition Policy Newsletter 1

assume that there must be significant competition in the market. The EU Commission appears to observe high consumer benefit in the form of innovation, but then inadequately interprets the free high technology industry as involving significant competition. In fact, it is seen that there is less competition in the market with, at most, a few dominant players with very high market share. Chapter 4 especially argues that this leads to confusion and legal uncertainty.

In order to understand and resolve this confusion the first step is to figure out what the objective of competition law should be in free high technology investigations. Without finding this out, one cannot comprehend the aims behind the EU Commission's approach to rationalizing their decisions and determine a solution that will be coherent with the correct competition law objective. Again, from the assumption of EU competition law we see above, consumer benefit is assumed to be rooted in competition. From there we can see how competition itself then becomes an aim of competition law. But which one is the main aim in the first place? If its consumer benefit, then the aim of competition becomes a means to an end. If its competition, then the aim of consumer benefit only becomes a means to an end. The means to an end can change as it is subordinate to the main aim.

With this in mind, if for example, consumer benefit is seen as the main objective of competition law, then we can readjust any assumptions and legal tests to fit the free high technology sector. In other words, we can alter the assumption of EU competition law from competition equals higher consumer benefit to say, for instance, 'that in the case of free high technology consumer benefit can be derived from a situation of reduced competition'. However, should the main aim be the promotion of competition, then we cannot justifiably implement such an assumption into legal analysis. Monopoly power would have to be prevented despite its positive effect on consumers.

In the next section, we therefore consider the objectives of EU competition law. Once we understand the objective, why the EU Commission presents limited rationale in free high technology cases will become clearer.

2.4 Objective of EU competition law to be pursued in free high technology cases

2.4.1 Introduction and Limitations

Having discussed how free high technology relates to competition and how competition law's presumptions may clash with it, the next step is to understand what objective(s) of competition law should be pursued in free high technology cases. We found in the previous section that competition in free high technology is not necessarily directly proportional to consumer benefit. Hence, in order to come to a decision in a free high technology case we need to determine which objective competition law strives to achieve. Is it the protection of consumers or competition? Once we know who we are protecting, we can then evaluate the authorities' investigations, the rationale behind Commission decisions and the appropriateness of any current and proposed legal tests all in relation to free high technology.

The literature suggests that EU competition law is associated with multiple objectives. These objectives however, can be found at different levels and can be far removed from each other to the point that the links between them become tenuous. With EU competition law especially for example, on the first level there are the legal tests applied by the EU Commission in their decision making on the operational level. On the second level, the legal test itself will have its basis in Competition Policy set by the EU Commission. On the third level, the competition policy would be based on the main competition provisions i.e. Articles 102 and 101. Finally,

on the fourth level, Articles 101 and 102 would have their objectives rooted in those of the wider internal market.¹⁸⁰

Since this thesis addresses the coherency of the legal arguments of the EU Commission, its focus is on the congruence of Commission competition policy with the legal tests it applies. We will see that current competition policy indicates that consumer welfare is to be the main objective. However, as we will see, simultaneously, the authorities' method of investigation, case law and the ideological roots of EU competition law may indicate the opposite; i.e. that the protection of competition is more important. Hence, some analysis beyond the authorities' statement that consumer welfare is the most important objective must take place to ensure that this is a safe conclusion to base the rest of our thesis on. The analysis would also include how the authorities decide cases in practice.

Market integration, raising the standard of living, prosperity and employment are wider internal market objectives to name a few.¹⁸¹ However, a smaller number of particular objectives are used in practice as a means of achieving the more, so to speak, ultimate objectives.¹⁸² This generally boils down to competition, consumer welfare and efficiency. As we have indicated, free high technology potentially brings these three elements at odds with each other. Hence, this section will solely focus on these three objectives.

¹⁸⁰ Renato Nazzini, *The Foundations of European Union Competition Law: the Objectives and Principles of Article 102* (Oxford University Press 2009) 116- Article 3(3) TFEU appears to express the goals of the internal market .

¹⁸¹ Alexander Schaub 'Competition Policy Objectives (Working Paper VIII)' in C Ehlermann & L Laudati (eds) *European Competition Law Annual 1997: Objectives of Competition Policy* (Hart, Oxford 1998) 122

¹⁸² *Ibid* 123

We begin by looking at the protection of competition as an objective.

2.4.2 The protection of competition and the influence of Ordoliberalism

Evidence of whether the protection of competition is the most important objective of competition law can come from sources such as legal provision texts and academic literature, but also from the possible ideological origins of the law. We therefore begin by looking at Ordoliberalism, an ideology that was considered to have influenced EU competition law tremendously from the days of its fruition.

Ordoliberalism is an economic ideology that has said to have influenced European competition law extensively. For example, Philip Lowe, former Director General of Competition mentioned that initially, case law and judgements were all influenced by Ordoliberal thought.¹⁸³ The European Ordoliberalism-influenced focus, when compared to the focus of United States antitrust law for example, appears to be on ensuring that competitors have the opportunity to compete in the market.¹⁸⁴ In the EU there is a special responsibility on companies with a dominant position towards their competitors; they must ensure that they do not act in a way as to harm them which will in turn harm genuine undistorted competition.¹⁸⁵ Hence, the protection of competition would appear to have been a very important objective in mind at the time of the formation of EU competition law.

¹⁸³ Philip Lowe, 'Consumer Welfare and Efficiency—New Guiding Principles of Competition Policy?' (13th International Conference on Competition and 14th European Competition Day, Munich, 27 March 2007)

¹⁸⁴ Dieter De Smet 'The diametrically opposed principles of US and EU antitrust policy' (2008) 29 E.C.L.R. 356, 357

¹⁸⁵ *Nederlandsche Banden Industrie Michelin NV v Commission of the European Communities* (322/81) [1983] ECR 3461 at para 57

The influential German Ordoliberal thought strongly espoused the idea that competition is necessary for economic well-being.¹⁸⁶ However, it appears that its main rationale is not grounded in economic effects.¹⁸⁷ It has been argued that Ordoliberalism was born out of a post-war Germany with anti-dictatorial sentiments; the right to compete should be fiercely protected and encouraged to prevent any one enterprise from attaining too much power.¹⁸⁸ Not only was such power reminiscent and symbolic of a dictatorship,¹⁸⁹ but on a more practical level it was also feared that companies that attained a lot of market power would be able to influence politics and laws in their favour as they had the resources to do so.¹⁹⁰ In this sense the Ordoliberalistic right to compete was interpreted as a value that stood on its own and required no further qualifications for its existence (for example, conditions of productive efficiency).¹⁹¹ This is not to say that the Ordoliberalism-supporting literature ignores concepts such as efficiency and technical progress as ideals to be strived for; it simply associates these ideals as a positive product of the exercise of economic freedom by the various competitors in the market.¹⁹²

¹⁸⁶ David Gerber, *Law and Competition in Twentieth-Century Europe, Protecting Prometheus* (Oxford, Clarendon Press, 1998) 240

¹⁸⁷ See for example, Frank Maier-Rigaud 'On the normative foundations of competition law- Efficiency, Political Freedom and the Freedom to Compete' in Daniel Zimmer (ed) *The Goals of Competition Law* (Edward Elgar Publishing International 2012) 139- the author refers to L Miksch who wrote about Walter Eucken, a German economist involved in the development of the concept of Ordoliberalism. Miksch, as a student of Eucken, explained that ordoliberalism was more about searching for a more humane order for society in general as opposed to economic freedom.

¹⁸⁸ Ibid

¹⁸⁹ Ibid 139-140- The author explains German writings by economic theorists: Rustow stated that freedom to compete should be upheld even at the expense of productivity as it is absolutely vital to maintaining a free society. Significant private economic power was considered a threat to democracy.

¹⁹⁰ Frank Maier-Rigaud 'On the normative foundations of competition law- Efficiency, Political Freedom and the Freedom to Compete' in Daniel Zimmer (ed) *The Goals of Competition Law* (Edward Elgar Publishing International 2012) 132-138.

¹⁹¹ See Wernhard Moschel 'Competition Policy from an Ordo point of view' in A Peacock and H Willergodt (eds) *German Neo-Liberals and the Social Market Economy* (MacMillain, London 1989) 142

¹⁹² Ibid 146

One could therefore argue that the essence of Ordoliberal ideology is a visceral reaction to dictatorships that existed shortly before/during its time and would only therefore be relevant and justified during that period of post-war Germany. Perhaps absent the European dictatorships Ordoliberal ideology would have taken into better consideration the possible positive economic effects of having dominant companies and competition only be one of the objectives, as opposed to the fundamental one. Given this, perhaps Ordoliberal ideas are not meant to be applied today to competition law.

Furthermore, such a right to compete stemmed from the assumption that in order to exercise the right appropriately and effectively, a situation of ‘complete competition’ was required in the market to begin with.¹⁹³ It is only such a situation that would breed the circumstances that would allow for the freedom to compete to take place.¹⁹⁴ This starting point assumption appears to pre-empt the argument that it is paradoxical to outlaw monopoly power when competitors’ freedom to compete may very well entail the right to take market share from another and therefore gain market power. In this way, the Ordoliberalistic freedom to compete is even further entrenched as an absolute value.

However, although it has been said that Ordoliberalism had a great influence on EU competition law,¹⁹⁵ it appears that there is some debate over how much of the original strict interpretation of Ordoliberalism actually did so. It is said that the original idea of the right

¹⁹³ David J Gerber ‘Constitutionalizing the Economy: German Neo-Liberalism, Competition Law and the ‘New’ Europe’ (1994) 42 AJCL 25, 43

¹⁹⁴ Ibid

¹⁹⁵ See Giorgio Monti, ‘Article 81 and Public Policy’ (2002) 39 CMLR 1057–99, Liza Lovdahl Gormsen, ‘Article 82 EC: Where are we coming from and where are we going to?’ (2005) 2 The Competition L Rev 5, 10; Ekaterina Rousseva, ‘Modernizing by Eradicating: How the EU Commission’s New Approach to Article 81 EC Dispenses with the Need to Apply Article 82 EC to Vertical Restraints’ (2005) 42 CMLR 587, 590–1

and freedom to compete in its purest sense was watered down.¹⁹⁶ Competition was considered a discovery process where a company, on merit, gain market power and itself would also have the right to compete (even if it encroached upon weaker competitors' right to compete).¹⁹⁷ A consideration of German draft law and German parliamentary texts in the 1950s appears to show that the freedom to compete was never a main goal; the right to compete was only to be exercised provided that it would not encroach upon productivity and provide the best possible supply for consumers.¹⁹⁸ We now see again, that the protection of competition may not have been the only fundamental objective in mind when the EU competition law provisions were being drafted. Therefore one can infer from the German parliamentary texts that other objectives such as productivity were probably construed as just as important.

There are other early documents that also show the importance of productivity as an objective. For example, the 'Spaak report', which was a report made in preparation of the drafting of the treaties, contained recommendations for the provisions of the Treaty of Rome.¹⁹⁹ The report explained that one of the main purposes of the Common Market should be to improve the region's economic strength; to do this a more extensive specialised division of labour leading to less resource wastage and lower cost production is required.²⁰⁰ Hence, efficiency appears to be a goal of the Common Market in this report.²⁰¹ Companies in the

¹⁹⁶ Frank Maier-Rigaud 'On the normative foundations of competition law- Efficiency, Political Freedom and the Freedom to Compete' in Daniel Zimmer (ed) *The Goals of Competition Law* (Edward Elgar Publishing International 2012) 145

¹⁹⁷ Ibid 144- the author refers to Friedrich Hayek 'The use of knowledge in society' (1945) 35(4) *American Economic Review* 519-530

¹⁹⁸ Ibid 152-161

¹⁹⁹ See Intergovernmental Committee of the Messina Conference, Report by the Heads of Delegations to the Foreign Ministers ('Spaak Report') 21 April 1956 (Provisional English Text)

²⁰⁰ Ibid

²⁰¹ Pinar Akman 'Searching for the Long-Lost soul of Article 82 EC' (2009) 29(2) *O.J.L.S* 267, 280-81- Interestingly, however, in the very same Spaak report the creation of monopolies were to be prevented.

significantly larger market facing many more competitors would need the best production methods and produce products/services of the highest quality in order to survive.²⁰² In other words productive inefficiency was condemned quite clearly and with great emphasis.²⁰³ It also appears that the report accepted the notion of efficiency being achieved at the expense of competitors who were unable to match their counterparts in productivity. This is of course incongruent with the classic idea of Ordoliberalism where competitors should be able to compete despite their lower efficiency.

Another way to find out whether the purer form of Ordoliberalism has a strong influence on EU competition law is to see what the early drafts for competition rules were and how they contrast with the current rules. Some of the early drafts seemed to be highly Ordoliberalistic in the phrasing.²⁰⁴ For instance, one of the early drafts mentioned that ‘Monopolies or abusive practices of the following type:… c- the full or partial domination of a product market by a single undertaking’ is incompatible with the common market.²⁰⁵ This appears to outlaw the monopoly position itself²⁰⁶ as opposed to only outlawing the abuse of dominance as seen in current Article 102 TFEU. Of course we know now that such an ordoliberalistic provision is not to be found in any of the current competition provisions; no provision condemns the

Although the author recognizes that this sounds like an ordoliberalistic policy, she notes that in the very same section of the report on monopolies there is mention of the prevention of discriminatory practices by monopolies. This appears to indicate that, in fact, the report would still support the existence of monopolies as long as they did not discriminate. A purely ordoliberalistic policy would not entail such reference to discrimination as monopoly power should not exist in the first place.

²⁰² See Intergovernmental Committee of the Messina Conference, Report by the Heads of Delegations to the Foreign Ministers (‘Spaak Report’) 21 April 1956 (Provisional English Text)

²⁰³ Pinar Akman ‘Searching for the Long-Lost soul of Article 82 EC’ (2009) 29(2) O.J.L.S 267, 281; on page 287 the author also refers to a speech of Mr. Pineau, Foreign Minister of France on the occasion of the signature of the Treaties founding the European Economic Community and the European Atom Community, 25 March 1957; Mr Pineau states that the intention is indubitably to increase and improve productive capacity.

²⁰⁴ Ibid 284

²⁰⁵ Ibid - See author’s reference to this draft provision seemingly translated from German text.

²⁰⁶ Ibid

existence of monopoly power. In that sense, one can conclude that the original attempts to include a pure right to compete in the competition rules was rejected²⁰⁷ and therefore it was never intended for EU competition provisions to be ordoliberalistic. As a matter of fact it was found that the President of the Common Market Committee who was also supposedly a German ordoliberal, was in full support of practices by companies that eliminated competitors as long as they reflected a sense of fair competition; in fact such practices, whilst strengthening market dominance, also strengthened competition.²⁰⁸ Here, the President was making a clear distinction between competition on merit and competition via the abuse of dominance (unfair competition).²⁰⁹

Overall, it appears that a purely Ordoliberalistic view is not what EU competition law is influenced by. There is no evidence in the early documents of EU competition law that shows the protection of competition as the only objective, but only as one of the objectives.

We now turn to other literature to determine where the protection of competition stands as an objective. We previously discussed in section 2.3 how EU competition law is very much based on a positive link between competition and consumer benefit. The purpose of that discussion was to show how such a link can clash with theories on the operation of free high technology markets. However, that link can also serve another purpose. If competition and

²⁰⁷ Ibid – The author refers to the comments made during the negotiations about the draft rules. It is quite clear that the German negotiators were in fact clearly against the imposition of any ban on monopolies and oligopolies without any qualifying conditions. It was the German side that suggested that such an outright ban be set aside and instead a ban on the abuse of a dominant position should be imposed. The existence of monopolies can be compatible with competition.

²⁰⁸ Ibid 286

²⁰⁹ Ibid- author also states that the President of the Common Market committee underlined the difference between protection of competitors and protection of competition.

consumer benefit are regularly linked together, it may also be a testament to the idea that consumer benefit is just as important as competition as a goal, if not more important.

For example, whilst it has been argued that Article 102 TFEU cannot be used to protect consumers directly as its purpose is to protect the institution of competition and that this stems from the Ordoliberalism-like notion that all commercial entities should be able to engage in commercial activities without encumbrances,²¹⁰ this in turn is also, so to speak, usually warranted by the idea that the competitive process will lead to the maximization of consumer welfare.²¹¹ Even in theories where consumer welfare has been dismissed as a main objective in favour of making competition a more important objective,²¹² there is a justification on the basis of positive effects on consumers.²¹³ For example, long term social welfare has been mentioned as the main goal of competition law and the way to achieve it is through long term productivity growth; this in turn can be achieved through a competitive economy where the largest and highest quality output is produced at the lowest possible cost.²¹⁴ If the source of justification of the ‘protection of competition objective’ is often consumer benefit, it can indicate that consumer benefit is the main objective above competition.

²¹⁰ Thomas Eilmansberger ‘How to Distinguish Good from Bad Competition under Article 82 EC: In Search of Clearer and More Coherent Standards for Anti-Competitive Abuses’ (2005) 42 CML Rev 129, 133; Heike Schweitzer ‘The History, Interpretation and Underlying Principles of Section 2 Sherman Act and Article 82 EC’ in CD Ehlermann and M Marquis (eds) *European Competition Annual 2007: A Reformed Approach to Article 82 EC*

²¹¹ Ibid

²¹² Renato Nazzini, *The Foundations of European Union Competition Law: the Objectives and Principles of Article 102* (Oxford University Press 2009) 120- the author considers the wider internal market goals of economic freedom and equality as those that can be incorporated into competition law as goals as well.

²¹³ Ibid 116- although the author does not directly state the benefits to consumers, he states the direct benefits of competition which are high output, high quality and low cost productions. It cannot be denied that one of the groups that immediately benefits from these factors are consumers.

²¹⁴ Ibid 116 & 153

However, there is some, albeit minor, evidence in EU regulations that competition is to be a value in itself without any competing values. For example, EU competition law also appears to refer to the protection of Small and Medium-sized enterprises (SMEs). This is, so to speak, reflected in the EU Commission's notice on de minimis agreements.²¹⁵ It, for example, states that where the aggregate market share held by the parties to the agreement does not exceed a total of 10% of any pertinent relevant market, the EU Commission will hold the view that such an agreement will not culminate in a restriction of competition.²¹⁶ It appears to allow smaller enterprises to engage in practices that would be much more strictly scrutinized in the case of larger ones. This can quite reasonably be argued to stem from a policy of protecting competition in the market; as long as there are a number of companies with smaller market shares in the market, there is no need to worry about any menaces to competition. Hence, the objective of SME protection may be likened to that of protecting competition.

Furthermore, there has been the rare instance where competition has been considered as a fundamental value in itself and must be protected regardless of its effect on consumer welfare or any other aspect of society for that matter; it is a fundamental of liberal democracy.²¹⁷ Oles Andriychuk is a proponent of such a theory and states that in this context we should separate completely the right to compete from the effects on consumers that the exercise of or the lack

²¹⁵ Laura Parret 'The multiple personalities of EU competition law: time for a comprehensive debate on its objectives' in Daniel Zimmer (ed) *The Goals of Competition Law* (Edward Elgar Publishing International 2012) 72

²¹⁶ See section 8 of Commission, 'Notice on agreements of minor importance which do not appreciably restrict competition under Article 101(1) of the Treaty on the Functioning of the European Union (De Minimis Notice)' Communication (2014) OJ C 291/01

²¹⁷ Oles Andriychuk 'Thinking inside the box: why competition as a process is a sui generis right- a methodological observation' in Daniel Zimmer (ed) *The Goals of Competition Law* (Edward Elgar Publishing International 2012) 95

of it may have on consumers; there is no need to justify the existence of the right and it is one that has a grounding in the sense that it is simply an established right.²¹⁸

It is also worth noting that Andriychuck writes his article in reaction to and in the context of his interpretation of current competition policy in both the EU and US, where consumer welfare is the main goal and competition is only treated as a means to achieve this goal.²¹⁹ This is importantly a further testament to the fact that the EU Commission, along with its policies, regulations and guidances, has projected consumer welfare as the main goal of competition law.

At this point we can conclude that the protection of competition is an important goal of competition law. However, it is questionable whether it is the main goal or whether there are other goals that stand on par with it. We mainly see evidence of this in the fact that consumer benefit is virtually always used to justify the protection of competition as an objective. Evidence that competition is the most important goal above all others is rare. For example, Andriychuck's proclamation that competition should be protected at all costs is a bold

²¹⁸ Ibid 97- The author explains two different types of reasoning that may apply to the right to compete. One is a 'utility/wealth-based' one whilst the other is a 'rights-based' one. The utility/wealth based right is one that is justified according to the positive effects it would have on some other aspect of, for example, the economy or society. A 'rights-based' right does not require any justification. The author argues that this is the type of reasoning that should justify the right to compete. Page 113- The author also compares competition as a right to that of free speech; generally free speech (I say 'generally' as under particular circumstances certain types of speech such as racial hatred-inciting speech is outlawed) is an exercisable right despite the possibility of it causing harm.

²¹⁹ Ibid 107, 108 & 109- For example, the author refers to how Brussels currently basis its policies on Chicagoan economic principles. Apparently Chicagoan economic theory supported certain conduct on the basis of positive outcomes for total welfare which would otherwise be considered anticompetitive. Such a process of reasoning then made it seem as if competition was no more than a means to an end; competition was justified only as long as it supported another cause (in this case efficiency and consumers)

statement that would be controversial today. As we have noted before, competition authorities always make it a point that they do not protect competitors.²²⁰

2.4.3 The view of the courts

The European Court of Justice has provided a lot of indications as to what the objectives of competition law are and what legal tests to use in competition analysis. The courts have the responsibility to ensure that the EU Commission is correctly implementing the law. Hence, it is imperative that we know what the court's approach is. The major theme we will observe in these cases is that competition is to be protected most importantly. However, this is done without expressly relegating the effect on consumers; there is simply an assumption that by protecting competition, consumers are positively affected. Given how free high technology markets likely operate on the opposite idea i.e. that less competition leads to more consumer benefit, there is a danger that should such a case be determined at the General Court or CJEU, consumers will lose out.

In the *United Brands* case for example, the judgement described a practice by United Brands to have interfered egregiously with the independence of downstream²²¹ small and medium enterprises.²²² This interference would then have led to the foreclosure of competitors of the company with the dominant position by only keeping the downstream enterprises that depend on the dominant company active.²²³ This was considered to lead to an abuse of a dominant

²²⁰ For example, also see the US Federal Trade Commission website <https://www.ftc.gov/about-ftc/what-we-do> ; there is no mention of protecting competitors. It is only protecting consumers and competition.

²²¹ Case 27/76 *United Brands v Commission* [1978] ECR- 00207

²²² Ibid

²²³ Ibid

position.²²⁴ There was no link made between the effect on consumers and the abuse; the conclusion of abuse did not go beyond the effect on competitors in terms of their ability to stay in business.²²⁵ There appears to be a lack of concern for the effect on consumers.

The prioritization of the protection of competition was also seen in other cases. In *France v Commission*²²⁶ the court stated that the only way to guarantee undistorted competition is to ensure that all operators in the market are given equal opportunities.²²⁷ In *Michelin II*²²⁸ it was stated that in order to be found foul of Article 102, it was sufficient that the conduct in question by the dominant company was likely to restrict competition.²²⁹ This means that one does not need to prove an actual effect on competition but simply that it tends to have an effect of restriction.²³⁰ At this point, according to the cases discussed thus far, it would be very difficult to argue that consumer welfare or efficiency is the main goal of competition law. This is due to the fact that we do not see any particular mention, evaluation or analysis of the potential effects on consumers.

However, neither can it be concluded that the court views consumer welfare as an unimportant aspect of competition law. For instance, in *Microsoft*²³¹ it was explained that it was not necessary to prove adverse effects on consumers since an impact on the market

²²⁴ Ibid

²²⁵ Ibid

²²⁶ Case C-202/88 *France v Commission* [1991] ECR I-1223

²²⁷ Ibid para 51

²²⁸ Case T-203/01 *Manufacture Française des Pneumatiques Michelin v Commission (Michelin II)* [2003] ECR II-4071

²²⁹ Ibid

²³⁰ Ibid

²³¹ Case T-201/04 *Microsoft v Commission* [2007] ECR II-3619 paragraph 355

structure would indirectly harm consumers.²³² Hence, the question of consumer welfare is relevant.²³³ Whether consumer welfare is adversely affected however, is dependent on the effect of the abusive practice on competition. In other words, there is always an acknowledged presumption that an adverse effect on the level of competition will always lead to an adverse effect on consumers.

More recently, abuse of dominance cases on rebates have also illuminated the debate over competition law objectives and especially the clash between the protection of consumers and the protection of competitors. Before we move on to the more recent case, it would be better to have an understanding of the earlier case on rebates, *Hoffman-La Roche*.²³⁴ This case, as we will see shortly, followed the theme of the cases we saw above such as *United Brands* and *France v Commission*; there is only a concern for the level of competition in the market and an apparent neglecting of the effect on consumers. The later General Court case on rebates, *Intel*,²³⁵ as we will see was determined in an era when the EU Commission was stating an increased level of concern for the consumer. Hence, a change in the way of analysis and justification would have been expected in *Intel* to reflect the renewed emphasis on consumer

²³² Ibid. It should be noted however, despite this reference to consumers, that *Microsoft* is considered a landmark case that relegates consumer welfare to a lower level as an objective tremendously. For example, see C Ahlborn & D Evans 'The Microsoft Judgment and its Implications for Competition Policy towards Dominant Firms in Europe' (2009) 75(3) Antitrust. L.J. 887, 906- the author infers that although the General Court did analyse some of the qualities of Microsoft's competitors' products, it appeared to selectively ignore a range of positive qualities that tying an application with the Windows operating system would have. Factors 'such as the price, the quality of after sales service or the efficiency of a competitor's distribution system (or quality of interaction of various products)' that Microsoft could bring were ignored and not considered as elements in competition on the merits. Hence, consumer welfare issues were not considered in full and the selective focus on the positive qualities of the competitors reflected an ordoliberalistic approach, favouring competition over consumer welfare.

²³³ Liza Lovdahl Gormsen 'The conflict between economic freedom and consumer welfare in the modernization of Article 82 EC' (2007) 3(2) ECJ 329, 340. The author seems to express the view that it can be left open whether the courts were 'pursuing economic freedom only to promote consumer welfare'. However, this would have been more likely the case if it had shown more direct concern for consumer welfare by asking whether consumers would make benefit from lower prices, more choice and better quality.

²³⁴ Case 85-76 *Hoffmann-La Roche v. Commission* [1979] ECR 461

²³⁵ Case T-286/09 *Intel Corp v European Commission* [2014] 5 C.M.L.R. 9

benefit. However, this was not seen; it could be interpreted as an onslaught against prioritizing consumer welfare.

*Hoffman-La Roche*²³⁶ concerned the offer of rebates to distributors conditioned upon the distributors meeting, at least, a high proportion of their needs from the dominant producer (in this case Hoffman-La Roche).²³⁷ This was considered to be an abuse of a dominant position.²³⁸ What is relevant to the objectives of competition law is the rationale behind the conclusion of abuse in the judgment. It was emphasized that that these sort of rebates (known as fidelity rebates) were intended to incentivise purchasers to buying virtually exclusively from the dominant producer and therefore also coerce them into purchasing much less from competing producers.²³⁹ It was strongly indicated that the effect of this would be fewer competitors in the market.²⁴⁰ Furthermore, it specifically mentioned how the rebates fell under Article 102 (c) which mentions that applying dissimilar conditions to equivalent transactions as a very possible abuse.²⁴¹ There is no mention of the possible application of Article 102 (b), which considers limiting markets to the prejudice of consumers as an abuse. There is no consideration in the main rationale of the judgment of the fact that the rebates lead to lower prices that may, for example, be passed on to the final consumers. The judgment overall appears concerned with competitors' inability to compete on the market due

²³⁶ Case 85-76 *Hoffmann-La Roche v. Commission* [1979] ECR 461

²³⁷ *Ibid*- Hoffmann-La Roche was found to be dominant in markets for various vitamins. Not only was its market share significant, it also had a highly developed customer base, technological advantages over some competitors and well developed customer services. They offered discounts of up to 20% to particular distributors depending on what percentage of their needs they were purchasing from Hoffman-La Roche as opposed to from other competing producers of vitamins.

²³⁸ *Ibid*

²³⁹ *Ibid* para 90

²⁴⁰ *Ibid*- by restricting the purchaser/distributors choices of supply via the incentive of rebates, there was a denial of access to the market by other competing producers/suppliers.

²⁴¹ *Ibid*

to the rebates. In that sense, it can be argued that the position of the judges in the case was rather more Ordoliberal than not.

However, as indicated before, more controversial was the 2014 rebates case of *Intel Corp v Commission*.²⁴² Before discussing this case it is better to put it in the specific context that makes it controversial. Between the time of *Hoffman-La Roche* and *Intel Corp* there was the introduction of the Enforcement Priorities by the EU Commission. We saw above how this guidance aimed to shift the focus on the effect of allegedly abusive practices on consumers.²⁴³ Given this shift it would be reasonable to expect that any future cases on rebates would follow a less Ordoliberalistic approach and concentrate on the evidence of the actual effects of these rebates on consumers. However, in *Intel* rebates were categorized; the particular category of fidelity rebates was interpreted as automatically leading to an abuse of a dominant position.²⁴⁴ As in *Hoffman-La Roche*, fidelity rebates were considered to be embedded with an intention and ultimate effect to reduce competition in the market.²⁴⁵ Hence, it was illegal and there was no need to go on further and prove harm to consumers.²⁴⁶

²⁴²Case T-286/09 *Intel Corp v European Commission* [2014] 5 C.M.L.R. 9

²⁴³ See Massimo Motta 'The European Commission's Guidance Communication on article 82' (2009) 30(12) ECLR 593, 598-599- The author, although critical of some parts, states that the enforcement priorities generally sets the stage for a more economics and effects based approach to Article 102 TFEU. He states also that the priorities document appears to definitely emphasize the importance of gathering actual evidence of harm to consumers as opposed to assuming harm based on practices that take certain form. Anne Witt 'The Commission's Guidance Paper on abusive exclusionary conduct- more radical than it appears?' (2010) 35(2) E.L. Rev 214, 220 & 235- the difference in the proposed aims of the enforcement priorities document and previous soft law is remarkable. The priorities clearly propose that the welfare of consumers is to be a primary concern of competition policy. M Gravengaard & N Kjaersgaard 'The EU Commission guidance on exclusionary abuse of dominance- and its consequences in practice' (2010) 31(7) ECLR 285, 304- the author predicted that the change in approach indicated by the Enforcement Priorities would allow dominant entities more freedom in their practices. This is because the focus is shifted away from protecting a competitive structure to the well-being of consumers. The author appears to somewhat infer this from the fact that the guidance document does not support the existence of a less efficient competitor in the market. In that sense the preventing of a reduction in competitors is subordinated.

²⁴⁴ Case T-286/09 *Intel Corp v European Commission* [2014] 5 C.M.L.R. 9

²⁴⁵ Ibid

²⁴⁶ Ibid

It is important to note here however, that again the courts did not eliminate consumer welfare as an objective. The judgments stated as follows:

‘It is apparent from the case-law that Article 82 EC is aimed not only at practices which may cause damage to consumers directly, but also at those which are detrimental to them through their impact on an effective competition structure (Case C-95/04 P *British Airways*, paragraph 74 above, paragraph 106):²⁴⁷

Hence, the judgement not only agrees that the direct effect on consumers is an important consideration under Article 102,²⁴⁸ but definitely agrees that an important reason behind protecting an effective competition structure is the protection of consumers.²⁴⁹

What is also relevant apart from the lack of analysis of consumer harm in the Intel case is the approach towards the ‘as-efficient competitor test’. In the context of rebates this test is a prominent feature of the spirit of the Enforcement Priorities in the sense that it does not protect inefficient competitors from the potentially foreclosing practices by the dominant company.²⁵⁰ In terms of rebates the EU Commission indicates that they could be a form of

²⁴⁷ Ibid para 105

²⁴⁸ This is probably in reference to Article 102 (b) which clearly indicates that the existence of any ‘prejudice to consumers’ through a particular practice will make that practice abusive.

²⁴⁹ Also see the EU Commission’s Decision on Microsoft (Case COMP/C-3/37.792 Microsoft) para 969-The EU Commission stated that an undistorted competition process is to be a value itself; but more importantly it stated it was a value because it is known to lead to efficiency and more innovation, both positive effects for consumers as well.

²⁵⁰ J Molestina & P Picht ‘Conditional rebate schemes and the more economic approach: back to the future?’ (2015) 46(2) IIC 203

vigorous price competition that could benefit consumers with lower prices.²⁵¹ Where the lower prices through rebates potentially force particular competitors out of the market however, this will only be considered more likely²⁵² to be an abuse where the adversely affected competitor is as efficient as the dominant entity.²⁵³

The idea behind this appears to stem from the theory that an as-efficient competitor should be able to match the lower price of the dominant company without incurring a loss.²⁵⁴ But what it also means is that if the as-efficient competitor can only match the price at a loss, the dominant company is also deliberately incurring losses²⁵⁵ with an obvious intention to foreclose the competitor.²⁵⁶ This is a form of predatory pricing which allows the dominant company to raise prices significantly after the foreclosure through the below cost pricing.²⁵⁷ Hence, in the long run consumers suffer from even higher prices, even though there are lower prices in the short run; the effect on consumers is ultimately negative.²⁵⁸ Therefore the

²⁵¹ Commission, ‘Communication from the EU Commission — Guidance on the EU Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings’ (2009/C 45/02) para 23

²⁵² The term ‘likely’ is used here as the Guidance does not set guiding principles in absolutes. If you look at paragraph 24 of the Guidance for instance, the EU Commission has to simultaneously recognize and take into consideration that even a relatively inefficient competitor can apply a constraint on a dominant company and prevent it from abusing its power.

²⁵³ Commission, ‘Communication from the EU Commission — Guidance on the EU Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings’ (2009/C 45/02) para 23

²⁵⁴ Ibid- See para 25

²⁵⁵ See Richard Whish *Competition Law* (6th edn, Oxford University Press 2009) 729-730 The deliberate incurring of losses is very often linked to the practice of predatory pricing

²⁵⁶ Commission, ‘Communication from the EU Commission — Guidance on the EU Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings’ (2009/C 45/02) paras 25 and 26- in analysing whether there is likely to be foreclosure of a competitor, the EU Commission is to look at any below cost pricing. It is to look at specifically whether average avoidable costs and long-run average incremental costs are being covered after the application of rebates in this case. If these are not covered, it is to be understood that the company is sacrificing profits deliberately with an aim to foreclose its competitors.

²⁵⁷ Richard Whish *Competition Law* (6th edn, Oxford University Press 2009) 729-730. It should, however also be noted that below cost pricing does not automatically lead to the conclusion that dominance has been abused; a consideration of all other circumstances must be carried out (See Case C-549/10 P *Tomra Systems ASA v European Commission* [2012] 4 C.M.L.R. 27 (ECJ (3rd Chamber)))

²⁵⁸ Ibid

Guidance seems to clearly introduce a new test for rebates that has to scrutinize the difference between costs and the prices after the rebate is applied. What this also means however, as long as the price is above cost, but it is albeit a relatively low price (at a major discount for instance) the discount is allowed as consumers benefit from it ultimately.

Going back to the General Court *Intel* case, the judgement's approach to the as-efficient competitor test was non-existent. In other words, this test was not used to determine the question of foreclosure of equally efficient competitors. The Court considered that the test was not needed since the form of a fidelity rebate is anti-competitive to begin with. Again, through the Court's ignoring of the as-efficient competitor test, it seems that the requirement of considering the ultimate effects on consumers is not as important; consumer welfare appears as a less important objective.²⁵⁹

However, this conclusion may not be accurate. Some have indicated that, in essence, the case law on rebates is still in line with a consumer welfare objective; labelling the court's approach as 'form-based' apparently leads to a misinterpretation of the court's rationale.²⁶⁰ The conclusion that certain forms of rebates are anti-competitive is based on sound economics in the sense that rebates are a form of exclusivity and exclusivity is a particularly known harm in economics to the competitive process.²⁶¹ Exclusivity allows more power to the dominant company enabling it to raise prices later.²⁶² Hence, consumers suffer from

²⁵⁹ C Kanakari 'Consumer Welfare as a guiding principle in competition law: reflections on the Intel case' (2016) 22(1) Int. TLR 19,22- author states that the Court should have decided the case on a more sound economic basis taking special consideration of the harm to consumers. In this sense it is important that the consumer welfare objective is not undermined.

²⁶⁰ Wouter Wils 'The judgment of the EU General court in *Intel* and the so-called more economic approach to abuse of dominance' (2014) 37(4) World. Compet 405, 421-425

²⁶¹ Ibid

²⁶² Nicholas Economides 'Tying, bundling and loyalty requirement rebates' in Einer Elhauge (ed) *Research Handbook on the Economics of Antitrust Law* (Edward Elgar 2012) 130-131

higher prices at the end.²⁶³ In that sense, the ‘form-based’ analysis does take into consideration the effect on consumers. Furthermore, the courts also add the caveat that the exclusivity rebates can be applied provided that there is an objective justification.²⁶⁴ In that way it appears to open the door to analyse and discuss the effects on consumers. For instance, the dominant company is allowed to bring forward evidence to justify the rebates objectively and therefore the form-based rule cannot be described as a per se rule.²⁶⁵

Intel appealed the case to the CJEU, which set aside the General Court’s judgement. It was held that the General Court erred in ignoring Intel’s arguments on the EU Commission’s approach to the as efficient competitor test.²⁶⁶ The General Court was obliged to consider these given that the EU Commission had done its own analysis and application of the test in its own decision;²⁶⁷ in other words, the General Court should not have concluded its case on the basis of a form based rebates test. The case was referred back to the General Court so that it could reassess its decision based on a consideration of Intel’s arguments on the as efficient competitor test.²⁶⁸

Although this case does not overrule the form based test, it indicates a couple of ideas that ensure, to some extent, court approval of consumer welfare as being the main objective of competition law. Firstly, it formally confirms the as efficient competitor test to be important in such rebate cases. It was noted before that this test was more concerned with the ultimate

²⁶³ Ibid

²⁶⁴ Richard Whish ‘Intel v Commission: Keep calm and carry on’ (2014) JCL & E 1,2

²⁶⁵ Ibid

²⁶⁶ Case C-143/14P *Intel Corp v European Commission* [2017] paras 143-144 available at <http://curia.europa.eu/juris/document/document.jsf?jsessionid=9ea7d0f130d52395152ebfab48c9a83395ba597a1009.e34KaxiLc3eQc40LaxqMbN4PaNqOe0?text=&docid=194082&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=161936> accessed 24 December 2017

²⁶⁷ Ibid

²⁶⁸ Ibid paras 148-150

effect on consumers as it potentially allows rebates at the expense of less efficient competitors. If it is found that the more efficient incumbent's discounted prices are financially viable for the company (as opposed to being predatory below cost pricing), then there is a good chance that these discounts could be applied in the long term, benefitting consumers in the form of lower prices. Secondly, the judgement pays respect to the EU Commission as an authority whose principles and regulations are to be taken into consideration in court decisions. The judgement asked for specific consideration of the as efficient competitor test despite there being a form based test rooted in a history of clearly established case law. In other words, if the Enforcement Priorities²⁶⁹ document states consumers as a priority, and a Commission decision carries out a direct analysis of benefits to consumers, the courts will respect that.

The earlier case law we have analysed in this section clearly seems to suggest that protecting competition is the most important goal above all else. Although, the recent Intel CJEU case definitely appears to steer the boat well away from a principle of unqualified protection of competition, even if not directly towards consumer welfare. Whilst there is no definite elimination of consumer welfare as an objective, in the absence of any clear proclamation of what the main objective should be by the courts, it makes one uncertain as to what EU competition law is meant to prioritize. From the theories we understood about free high technology earlier in the chapter,²⁷⁰ this will likely pose a major problem. This is because, given the relatively greater emphasis on the protection of competition on the part of the courts, it is likely that a free high technology case will be determined in favour of smaller

²⁶⁹ Commission, 'Communication from the EU Commission — Guidance on the EU Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings' (2009/C 45/02)

²⁷⁰ See section 2.2

competitors which could lead to reduced innovation and quality for consumers. Hence, the issue of prioritization of objectives in the case of free high technologies is very important and more necessary than other industries where the objectives of competition law do not clash.

Where they clash, it must be ascertained which competing interest takes over the other.

2.4.4 The Consumer Welfare Objective and EU competition law

2.4.4.1 Clarifying the meaning of consumer welfare in the context of this thesis

Consumer welfare is another term that is central to this thesis. In economics, consumer welfare is considered to be the benefits derived from the actual consumption of goods and services (and these may be unique to different individuals who engage in the consumption); it is measured practically through a concept called consumer surplus;²⁷¹ this is the difference between the value that is attached socially to the concerned product/service and the actual price paid in monetary terms for that product/service.²⁷² Consumer welfare should be clearly distinguished from social welfare, which is consumer welfare plus producer surplus; producer surplus is the profit the producer makes (the difference between the cost of production and price of the goods/services sold).²⁷³ This is important as an increase in social welfare does not mean that there would be an increase in consumer welfare; it may just mean an improvement in producer surplus. An improvement in producer surplus may indicate a higher level of efficiency (lower cost of production and hence higher profit),²⁷⁴ but note that this does not

²⁷¹ R. S. Khemani and D. M. Shapiro (eds), *OECD Glossary of Industrial Organisation Economics and Competition Law* (1993) as seen in *OECD Glossary of Statistical Terms* <<https://stats.oecd.org/glossary/detail.asp?ID=3177>> accessed 27 September 2016

²⁷² Massimo Motta, *Competition policy: theory and practice* (1st edn, Cambridge University Press, Cambridge, 2004), 18

²⁷³ Alison Jones & Brenda Sufrin, *EU Competition Law: Text, Cases and Materials* (5th edn, Oxford University Press 2014) 12

²⁷⁴ *Ibid*

necessarily mean that the lower cost of production has been passed on to consumers in a beneficial way especially if prices have remained the same.

The term consumer welfare appears to have been introduced to antitrust literature in the United States by Robert Bork who interpreted it as the maximization of allocative efficiency and productive efficiency; in other words he viewed it as an increase in total welfare.²⁷⁵ He viewed producers as consumers as well in the sense that the producer, if enriched, was also an enriched consumer given that in turn, he/she will spend that increased profit as a consumer of products/services in general.²⁷⁶ However, this has been considered an inaccurate interpretation of consumer welfare²⁷⁷ which is, as explained before, the maximization of consumer surplus involving either a decrease in price or an improvement in quality (for the same price) or both.²⁷⁸ Nonetheless, after EU competition law ‘imported (consumer welfare) as a goal’ there was some confusion as to what it referred to.²⁷⁹ However, we can confidently gain a reliable interpretation of consumer welfare in EU competition by looking at, for example, policy documents.

The meaning of consumer welfare in EU competition law is similar to the economics oriented one in essence; in other words they refer to identical goals such as lowering price and improving quality. It is important to note that the phrase ‘consumer welfare’ itself is not used frequently in EU competition policy documents, EU judgements or Commission decisions.

²⁷⁵ Robert Bork *The Antitrust Paradox: A Policy at war with itself* (Free Press, New York 1978)

²⁷⁶ Ibid 110

²⁷⁷ Victoria Daskalova ‘Consumer Welfare in EU Competition Law: What is it (Not) about?’ (2015) 11(1) *Comp L Rev* 133, 144

²⁷⁸ R Claassen & A Gerbrandy ‘Rethinking European Competition Law: From a Consumer Welfare to a Capability Approach’ (2016) 12(1) *ULV* 1,2

²⁷⁹ Victoria Daskalova ‘Consumer Welfare in EU Competition Law: What is it (Not) about?’ (2015) 11(1) *Comp L Rev* 133, 144

However, for example, it did make an appearance in the 1997 Green Paper on Vertical Restraints.²⁸⁰ There was no explanation as to what the term consumer welfare meant.²⁸¹ However, the document referred to consumer interests and the ability of consumers to purchase good quality products at lowest possible prices as an aim of competition policy.²⁸² Hence, in the wider context of the document, consumer welfare in EU competition law appears to refer to benefit²⁸³ to and interests of consumers; and good quality and low prices seem to be some of the prime forms of benefit.

However, so to speak, there is understandably an additional limitation to the consumer benefit referred to in competition law; the benefit must be capable of being affected by market power;

‘The consumer welfare model argues that the ultimate goal of competition law should be to prevent increases in consumer prices, restriction of output or deterioration of quality due to the exercise of market power by dominant firms.’²⁸⁴

It is important to understand this as competition law is unable to remedy any loss to consumers that is not caused by a lack of effective competition in the market occasioned by the market power of dominant firms. This will be, for example, important to understand when we discuss the privacy issues posed by large free high technology companies in Chapter 2.

²⁸⁰ Commission, ‘Green Paper on Vertical Restraints in EC Competition Policy’(Green Paper on Vertical Restraints) COM (96) 721 final, 22 January 1997, 52

²⁸¹ Ibid

²⁸² Ibid 17

²⁸³ Ibid 53- The green paper also refers to consumer benefit. See also supporting academic literature; Pieter Kalbfleisch ‘Aiming for Alliance: Competition Law and Consumer Welfare’ (2011) 2(2) JECL & Pract 108 and International Competition Network ‘Competition Enforcement and Consumer Welfare, Setting the Agenda’(ICN Tenth Annual Conference, The Hague, May 2011) 19

²⁸⁴ Kati Cseres ‘The Controversies of the Consumer Welfare Standard’ (2006) 3(2) Comp L Rev 121, 124

We will see that although these issues may potentially decrease consumer welfare, it is unlikely that competition law can resolve them; hence, it is not a factor that should affect our understanding of consumer welfare in any markets related to privacy. For example, we will observe that from a privacy perspective, free high technology companies collect huge amounts of personal data on users for eventual commercial gain; users may not be comfortable with this forceful collection of data.²⁸⁵ However, we will also observe, that because the majority of companies collect data, preventing a reduction in the number of competitors will not resolve the issue given all competitors behave the same way.²⁸⁶ Hence, whilst the collection of data may be a negative for consumer welfare in a general sense, for the purposes of this thesis it would not be considered as an issue of consumer welfare as the level of competition in the market is very unlikely to have an effect on the collection of data from users.

Therefore to conclude, in this thesis consumer welfare will mean the positive benefits that consumers experience from a product/service and/or from purchasing that product/service which can be affected by the levels of competition in relevant markets. Also, phrases like ‘consumer benefit’ or ‘benefit to consumers’ will refer to consumer welfare and will be used interchangeably.

2.4.4.2 How the consumer welfare objective is viewed in EU Competition law

When the literature discusses the objectives of competition law, it will generally refer to the consumer welfare objective when speaking of the interests and benefits of consumers. Now

²⁸⁵ See section 2.2.5.2

²⁸⁶ See section 2.2.5.2

that we have considered the objective of protecting competition, we now specifically look at how the consumer welfare objective has been directly interpreted in terms of its standing as an objective.

Benefit to consumers has traditionally always been an important and virtually compulsory component of competition analysis; aspects such as lower prices and technological progress that affect the quality of benefit to consumers have historically been taken into consideration.²⁸⁷ The emphasis on the interests of consumers remains intact today.²⁸⁸ In terms of the high technology industry for example, it has been emphasized that one of the goals of competition law is to ensure that consumers have a choice amongst innovative products and services.²⁸⁹

‘One of the primary aims of competition enforcement is to encourage all industry participants to innovate, whether they are start-ups or have a dominant market share. The aim is to ensure that European consumers have as wide a choice as possible of innovative products.’²⁹⁰

²⁸⁷ See cases such as Case 56/64 *Consten and Grundig v Commission* [1966] ECR 571- a significant part of the competition analysis in this case focusses on benefits to consumers in terms of quality and price. Also see Commission, ‘Sixth Report on Competition Policy’(1078 - Brussels-Luxembourg, April1977) page 9- ‘(competition policy’s) aim is to ensure that business operates along competitive lines, while protecting the consumer by making goods and services available on the most favourable terms possible’

²⁸⁸ See for example Commission, ‘XXIInd Report on Competition Policy’ (2002) page 20- ‘One of the main purposes of European competition policy is to promote the interests of consumers, that is, to ensure that consumers benefit from the wealth generated by the European economy. This objective, which Commissioner Monti has emphasised on various occasions and continues to consider one of his top priorities, is horizontal in nature: the EU Commission thus takes the interest of consumers into account in all aspects of its competition policy, namely in countering anticompetitive agreements, in particular hardcore cartels, and abuses of dominant positions, but also in the control of concentrations and State aid granted by Member States.’

²⁸⁹ See Commission ‘Report on Competition Policy 2015’ COM(2016) 393 final page 5

²⁹⁰ Ibid

Competition policies are said to be of a good quality when their main fundamental goal is to help markets and companies operate in a manner that serves consumers very well.²⁹¹ More specifically consumers must be able to benefit from any of the innovation in production and efficiency that is created by producers/manufacturers²⁹² in, for example, the form of lower prices. This sort of prioritization of the consumer welfare objective would be good news for consumers in the sphere of free high technology investigations. If the goal is consumer welfare then free high technology companies should be allowed to increase their market power as they bring better benefits to consumers.

However, there is also evidence to suggest quite strongly in fact, that the emphasis on consumer interests alone should not be so pervasive. In the 2008 appealed cases of *Sot Leelos kai Sia EE and Others v GlaxoSmithKline AVEE Farmakeftikon Proionton* the European Court of Justice stated that the Court of First Instance had erred in law by determining that an agreement would have as its object to restrict competition under Article 101 TFEU only as long as it can be presumed that the agreement causes disadvantages and adversely affects consumers.²⁹³ However it is important to note that this case was in the specific context of

²⁹¹ Philip Lowe 'The design of competition policy institutions for the 21st century- the experience of the European Commission and DG Comp' (2008) 3 *Competition Policy Newsletter* 1

²⁹² Jules Stuyck 'EC competition policy after modernization: more than ever in the interest of consumers' (2005) 28 *Journal of Consumer Policy* 1

²⁹³ See C-501/06 P *GlaxoSmithKline Services Unlimited v Commission of the European Communities* [2009] E.C.R. I-9291 (ECJ (3rd Chamber)) paragraphs 62-63 'With respect to the Court of First Instance's statement that, while it is accepted that an agreement intended to limit parallel trade must in principle be considered to have as its object the restriction of competition, that applies insofar as it may be presumed to deprive final consumers of the advantages of effective competition in terms of supply or price, the Court notes that neither the wording of art.81(1) EC nor the case law lend support to such a position... First of all, there is nothing in that provision to indicate that only those agreements which deprive consumers of certain advantages may have an anti-competitive object. Secondly, it must be borne in mind that the Court has held that, like other competition rules laid down in the Treaty, art.81 EC aims to protect not only the interests of competitors or of consumers, but also the structure of the market and, in so doing, competition as such. Consequently, for a finding that an

parallel trade,²⁹⁴ which quite fundamentally deals with market integration; in such cases the goal of market integration may take precedence over any other goals including consumer welfare.²⁹⁵ Hence, the principle may not apply to a situation where there is no issue of parallel trade.

However, apart from this distinguishing feature of the case, it has been criticized for relegating consumer welfare. The finding of a breach of Article 101(1) should be based on, to some extent, the consideration of negative effects on consumers in terms of price and supply as that would ‘correspond with a functional interpretation of the notion of a restriction of competition as referred to in Union competition law’.²⁹⁶ Furthermore, consumer welfare and market integration enhance each other and are therefore linked together; so where market integration is of fundamental importance as a goal, so should consumer welfare.²⁹⁷

Furthermore, even where EU documents appear to advocate the protection of competitors at the expense of consumer welfare, it is justified on the basis of some form of ultimate

agreement has an anti-competitive object, it is not necessary that final consumers be deprived of the advantages of effective competition in terms of supply or price...’

²⁹⁴ Parallel trade occurs due to differential pricing amongst nations. The same company may sell the same product to different countries at different prices; hence the same medicine can be cheaper depending on what country it is being sold in. Some importers however may actually import the same product (even if available in the importer’s country albeit at a higher price) from a country where the medicine is cheaper and therefore be able to sell cheaper in their own country. In the *GlaxoSmithKline* case (see note 10 above) concerned parallel trade. GlaxoSmithKline sold a variety of medicine to Spanish importers. However, the Spanish importers were charged more for medicines which they would re-export to another country leading to a restriction in parallel trade. The EU Commission had alleged that this then subsequently led to a restriction of competition.

²⁹⁵ Laura Parret ‘The multiple personalities of EU competition law: time for a comprehensive debate on its objectives’ in Daniel Zimmer (ed) *The Goals of Competition Law* (Edward Elgar Publishing International 2012) 78, 79

²⁹⁶ Edith Loozen ‘The workings of article 101 TFEU in case of an agreement that aims to limit parallel trade (GlaxoSmithKline services (C-501/06 P, C-513/06 P, C-515/06 P and C-519/06 P)’ (2010) 31(9) E.C.L.R. 349, 351. Furthermore the author states that there are different ways to look at consumer welfare under article 101. Art 101(1) must view allocative efficiency (as in ensuring that the agreement does not restrict/prevent the efficient allocation of resources according to what consumers preferences are) and Art 101(3) can only justify such an agreement where the productive efficiency (the max amount produced at the lowest price) and dynamic efficiency (innovation overtime that allows the cost of production to go down overtime). Hence any negative welfare effects that restricts supply or prices would trigger the application of Article 101.

²⁹⁷ Ibid 352

advantage to the consumer. For instance, the 2005 EU Commission Discussion paper on the application of Article 82 (now 102) of the Treaty to exclusionary abuses, whilst discussing the ‘as-efficient competitor test’²⁹⁸ states that relatively inefficient competitors which could potentially, in the future, become more efficient may have to be protected.²⁹⁹ Such wording seems to suggest a test with broadness that allows an authority to easily determine any inefficient competitor to seem potentially efficient in the future.³⁰⁰ But this is still warranted in the Discussion paper by reference to the notion that it is actually in the best interest of consumers to have competitors that are not yet as efficient in the market.³⁰¹

Furthermore, the EU Commission’s shift towards an ‘effects-based’ approach has been widely interpreted as an official statement (on the part of the EU Commission) of the increase in the importance of consumer welfare, especially in the context of Article 102 TFEU.³⁰²

This supposed shift towards an effects-based approach is embodied in the EU Commission’s enforcement priorities guidance;

²⁹⁸ The as efficient competitor test asks whether or not a practice carried out by a company is likely to foreclose competitors that are at least as efficient as the company. If they are found to be less efficient, the company is allowed to continue with the practice. If the other competitors are just as efficient, then the practice must stop. The as efficient competitor test is very much viewed as one that highly discourages the protections of competitors and encourages the protection of effective competition instead (See *OECD Roundtable on Competition Policy: Competition on the merits*). Relatively inefficient competitors should leave the market. Hence, any notion that prevents a practice that could eliminate inefficient competitors, may be viewed as supporting the objective of protecting competitors instead of consumers.

²⁹⁹ DG Competition, ‘Discussion Paper on the Application of Article 82 of the Treaty to Exclusionary Abuses’ (December 2005) para 67 <<http://ec.europa.eu/competition/antitrust/others/discpaper2005.pdf>> accessed 14th December 2016

³⁰⁰ Liza Lovdahl Gormsen ‘The conflict between economic freedom and consumer welfare in the modernization of Article 82 EC’ (2007) 3(2) ECJ 329, 338. The author states the following: ‘Protecting competitors not yet as efficient as the dominant company signals that DG Competition is keen to increase the opportunities for other competitors in the market’

³⁰¹ DG Competition, ‘Discussion Paper on the Application of Article 82 of the Treaty to Exclusionary Abuses’ (December 2005) para 67 <<http://ec.europa.eu/competition/antitrust/others/discpaper2005.pdf>> accessed 14th December 2016

³⁰² See for example Leonardo Borlini ‘The “More Economic Approach” Methodological Issues of the “More Economic Approach” to unilateral exclusionary conduct. Proposal of Analysis starting from the treatment of retroactive debates’ (2009) 5(2) Euro.C.J 409, 414; Anne Witt ‘The EU Commission’s Guidance paper on Abusive Exclusionary Conduct- More Radical than it appears?’ (2010) 35 E L Rev 214, 215; Pinar Akman ‘Consumer Welfare and Article 82EC: Practice and Rhetoric’ (2009) 32(1) W. Comp. 71.

‘The emphasis of the EU Commission's enforcement activity in relation to exclusionary conduct is on safeguarding the competitive process in the internal market and ensuring that undertakings which hold a dominant position do not exclude their competitors by other means than competing on the merits of the products or services they provide. In doing so the EU Commission is mindful that what really matters is protecting an effective competitive process and not simply protecting competitors. This may well mean that competitors who deliver less to consumers in terms of price, choice, quality and innovation will leave the market.’³⁰³

It can be seen from the guidance above that the competitive process is important, but only to the extent that it has a positive effect on consumers. It has been pointed out that although consumer welfare is purportedly the main goal, consumer harm is not directly assessed by the competition authorities or courts; instead, the conditions of competition such as entry barriers and market share are assessed and those are used as indicators of what the harm to consumers would be.³⁰⁴ These conditions, however, have been looked at with some scepticism. For instance, the literature, has questioned the actual effect of the enforcement priorities in practice; it is argued that it still retains a lot of form-based analysis³⁰⁵ which allows the EU

³⁰³ Commission, ‘Communication from the EU Commission — Guidance on the EU Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings’ (2009/C 45/02)

³⁰⁴ Manuel Kellerbauer ‘The EU Commission's new enforcement priorities in applying article 82 EC to dominant companies' exclusionary conduct: a shift towards a more economic approach?’ (2010) 31(5) E.C.L.R. 175, 184

³⁰⁵ Form-based analysis can be considered as the opposite of the effects based analysis where effects on consumers would be considered. We will look into this further below when discussing the case law's view on objectives of competition law

Commission a lot of flexibility in terms of focusing the analysis on effects on consumers.³⁰⁶

In other words, it gives the EU Commission sufficient leeway to decide not to analyse the effects on consumers as much as the Enforcement Priorities at a glance may suggest.³⁰⁷

In this section, like previous sections, we have seen that the protection of competition objective is quite important but it is justified by the idea that competition brings benefits to consumers. In this section we also however, see that there are clear proclamations by competition authorities that the ultimate aim is to protect consumers. Whilst in practice the EU Commission utilizes form based tests/analyses (as we will see in more detail in section 3.2), this does not take away from the fact that consumer welfare is still capable of being the main objective. The tests and analyses would still be justified by positive effects for consumers. Given this, consumer welfare may be considered to be the priority. The aim of consumer welfare is never justified on that basis that it means more competition. Consumer welfare does not appear to need any justification like protecting competition does. It appears that, although there is some evidence to suggest that competition must be given extensive consideration as if it were a highly important objective, the current doctrine shows that consumer welfare is to be the prioritised as an objective over competition.

³⁰⁶ Manuel Kellerbauer 'The EU Commission's new enforcement priorities in applying article 82 EC to dominant companies' exclusionary conduct: a shift towards a more economic approach?' (2010) 31(5) E.C.L.R. 175, 184

³⁰⁷ Ibid

2.4.4.3 Moving forward - excluding the notion of choice in our definition of consumer welfare for the purposes of this thesis

It is important to note that the documents we considered above refer to choice as an important element of consumer interests.³⁰⁸ By referring to choice as an element of consumer interests, the meaning of consumer welfare in competition law may mistakenly be interpreted as including the concept. This poses a problem in terms of separating consumer welfare and competition as two independent concepts. The notion of choice, which is ‘the possibility and the right for customers to choose freely the products/services best corresponding to their needs,’³⁰⁹ appears to place the existence of competing products/services as a positive contributing factor towards consumer benefits. In other words, higher competition is seen as part of consumer interests. For example in *France Telecom v Commission*³¹⁰ it was stated that due to the possibility of a reduction in competitors through foreclosure ‘customers suffer loss as a result of the limitation of the choices available to them.’³¹¹ From this point of view, in essence, both competition and consumer welfare would be equivalent in meaning; they would both, as concepts, encourage an increase in competition. The requirement for more choice, is the same as requiring more alternative competitors producing in the same market.

However, this thesis’ hypothesis will fundamentally hinge upon the idea that the EU Commission in actuality views competition and consumer welfare as different objectives that

³⁰⁸ For example see European Commission ‘Why is competition policy important for consumers’ <http://ec.europa.eu/competition/consumers/why_en.html> accessed 26 November 2016, Commission, ‘Communication from the EU Commission — Guidance on the EU Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings’ (2009/C 45/02)

³⁰⁹ Paul Nihoul ‘“Freedom of choice”: the emergence of a powerful concept in European competition law’ in P Nihoul, N Charbit & E Ramundo (ed) *Choice- A New Standard for Competition Law Analysis?* (Concurrences USA 2016)

³¹⁰ Case C-202/07 P *France Telecom SA v Commission of the European Communities* [2009] ECR I-2369

³¹¹ *Ibid* paragraph 112

clash with each other in free high technology investigations;³¹² and that is the reason the EU Commission provides limited and inconsistent rationale for its decisions. Therefore, for the purposes of this thesis, consumer welfare and the interests of consumers will not include the element of choice.

Instead, the view that the availability of choice is good for consumers can be considered tantamount to the presumption that competition is good for consumers. Competition analysis presumes in every situation that competition is good for consumers; this may not be the case in every situation, especially when it comes to free high technologies. The analysis of choice is similar in the sense that there is a presumption that choice is good for consumers; there does not seem to be a case by case analysis of whether choice will lead to higher consumer welfare in the particular situation. For example, there is no analysis/evaluation of whether the incumbent's competitors or future competitors can provide better choice for consumers.³¹³

³¹² An example would be *Facebook/Whatsapp* (Case No COMP/M.7217) [2014] available at http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf accessed on 23rd July 2017- it will be explained in section 3.5 how this merger would have most likely led to the reduction of competition in the market, but most likely due to it being a free high technology good for consumer welfare, the merger seems to have been allowed.

³¹³ In the following cases for example, there was the possibility of a reduction of competition which would reduce choice for consumers. There was no follow up analysis of whether current competitors would be able to actually provide better choices Case C-202/07 P *France Telecom SA v Commission of the European Communities* [2009] ECR I-2369, Case T-286/09 *Intel Corp v European Commission* [2014] 5 C.M.L.R. 9

2.5 Efficiency

Efficiency is also regularly mentioned as a goal of competition law in the European Union.³¹⁴ As a matter of fact, it is arguably the most important goal of competition law.³¹⁵ In this chapter's section on Ordoliberalism, particular literature on the pure form of Ordoliberalism's actual influence on the EU competition provisions was looked at. It emerged that the intention of the original drafters was to design competition provisions which aimed at greater efficiency than anything else. Even the protection of consumers and consumer welfare were nowhere near as conspicuously mentioned as efficiency during the negotiations leading up to the Treaty of Rome.³¹⁶

It may therefore seem confounding that there is only a small section on efficiency in this chapter and that it is only mentioned towards the end as an afterthought. As we will see, the reason behind this is that efficiency, in the case of free high technology services is assumed to be inherently of a good standard. In many of the EU Commission cases we will see in Chapter 3, efficiency arguments are hardly mentioned and are therefore not a focal point. We should note though that to some extent the *Microsoft/Yahoo!* joint venture (considered in more detail in Chapter 4) hints at the efficiency argument. However, firstly, the word efficiency was used only by the parties to make their case. The EU Commission did appear to

³¹⁴ See for instance the speech by Commissioner Kroes at Competition Day London, 15 September 2005 http://europa.eu/rapid/press-release_SPEECH-05-512_en.htm?locale=en; Philip Lowe Director General, EC Commission Directorate-General for Competition. *Consumer Welfare and Efficiency – New Guiding Principles of Competition Policy?*. 13th International Conference on Competition and 14th European Competition Day. Munich: 27th March 2007; Daniel Zimmer 'On the normative foundations of competition law' in Daniel Zimmer (ed) *The Goals of Competition Law* (Edward Elgar Publishing International 2012) 167; R Moisejevas & A Novosad 'Some thoughts concerning the main goals of competition law' (2013) 20(2) *Jurisprudencija/Jurisprudence* 627, 629

³¹⁵ We can see this in our discussion above with regards to the SPAAK report (original consultation report building up to the Treaty of Rome), where efficiency appeared to be the main normative justification for the treaty.

³¹⁶ Pinar Akman 'Searching for the Long-Lost soul of Article 82 EC' (2009) 29(2) *O.J.L.S* 267, 300

acknowledge that the parties needed larger scale to effectively compete against the dominant search engine Google. But there was no direct mention of efficiency by the EU Commission itself. As we will see in Chapter 4, it is very questionable whether even this slight progress of the efficiency argument would be seen in cases where the mergers take place between highly dominant companies (both Yahoo! and Microsoft's Bing had little market share in the search market). In other words, an efficiency argument would fare little in general. Furthermore, efficiency and consumer welfare, in the specific case of free high technology are less likely to be at loggerheads. As will be seen, efficiency and consumer welfare only clash where the lower costs occasioned by efficiency are not passed on to the consumer. The fact is that the consumer is not being charged for any service in the first place. The consumer is already getting a significant benefit pricewise. Hence, any increase in efficiency will be seen as to not have any negative effect on consumer welfare.

The general theory is that competition improves productive efficiency.³¹⁷ One of the reasons this is said to happen is because managers at firms will try to achieve lower costs to be able to pass this on to consumers and so try to take market share from rivals.³¹⁸ Competition also improves allocative efficiency³¹⁹ as competitors will eventually lower prices closer to the level of marginal cost, due to perhaps price competition; this is also good for consumers as the price is equal to the value they assign to the good or service.³²⁰ Also, the efficient allocation of resources is usually specifically mentioned as the form of efficiency that is one

³¹⁷ See footnote 186 for explanation of productive efficiency

³¹⁸ Damien Neven in 'Competition Policy Objectives (Working Paper VII)' C Ehlermann & L Laudati (eds) *European Competition Law Annual 1997: Objectives of Competition Policy* (Hart, Oxford 1998) 111, 115

³¹⁹ See footnote 186 for explanation of allocative efficiency

³²⁰ OECD Policy Roundtables 'The Role of Efficiency Claims in Antitrust Proceedings' (DAF/COMP(2012)23, 2012) 5 at <http://www.oecd.org/competition/EfficiencyClaims2012.pdf> accessed 12th December 2016

of the objectives of competition law.³²¹ Finally, dynamic efficiency³²² is also at times associated with competition.³²³ However, all three forms of efficiency could conflict with each other; allocative efficiency means that prices lower to the point of marginal cost whilst productive efficiency means that the actual marginal cost itself is lowered; dynamic efficiency indicates increased investments in capital³²⁴ (and hence increased costs) presently for better productive efficiency in the future. Furthermore, dynamic and productive efficiency can also be achieved where there is less competition; producers with larger market share can spread a larger output over capital reducing cost per unit and can further invest resources into more innovative and efficient capital.³²⁵

However, how do all these efficiencies relate to free high technology and the consumer welfare standard? In order to ensure that efficiency is compatible with a consumer welfare standard, it must be ascertained that the benefits of efficiency are passed on to consumers; this is usually in the form of lower prices.³²⁶ In the context of free high technology services though, efficiency is not to be a crucial focal point. As we have seen in the theory of free high technology, having a single platform increases efficiency which translates to consumers in terms of better quality service. Hence, we are likely to have better productive and dynamic efficiency as a single large platform is better equipped to achieve these.

³²¹ Pinar Akman 'Searching for the Long-Lost soul of Article 82 EC' (2009) 29(2) O.J.L.S 267, 300

³²² See footnote 186 for explanation of dynamic efficiency

³²³ Damien Neven in 'Competition Policy Objectives (Working Paper VII)' C Ehlermann & L Laudati (eds) *European Competition Law Annual 1997: Objectives of Competition Policy* (Hart, Oxford 1998) 111, 116

³²⁴ *Ibid* 113

³²⁵ OECD Policy Roundtables 'The Role of Efficiency Claims in Antitrust Proceedings' (DAF/COMP(2012)23, 2012) 5 at <http://www.oecd.org/competition/EfficiencyClaims2012.pdf> accessed 12th December 2016

³²⁶ Andreus Strohmann 'Efficiencies in Merger Control: All you always wanted to know and were afraid to ask' available at <<http://ec.europa.eu/dgs/competition/economist/strohm3.pdf>> accessed on 19 November 2017

Further, there is no price charged to consumers in the first place; we therefore do not need to worry whether the benefits of efficiency are passed on to the consumer in the form of lower prices. Hence allocative efficiency is not an issue either. Finally, the EU Commission decisions on free high technology services do not focus on efficiencies as a justification for mergers or unilateral action. Again, this is probably because efficiencies are assumed to be inherently high in such an industry.

The belief in the inherent nature of efficiency in this industry can somewhat be seen in The EU Commission's Microsoft Decision.³²⁷ Efficiency in distribution was raised as a justification for Microsoft tying its Windows Media Player to its operating system. Microsoft argued that by tying the two products, it would save costs by not having to set up a separate distribution channel for the media player. Customers would not only therefore be charged less in terms of monetary sums, but they would have to spend less time on selecting and installing. The EU Commission indicated that such arguments on efficiencies were virtually irrelevant. The distribution cost of software was very low; software can be replicated and distributed with very little effort. In such cases therefore, the focus is on consumer choice and innovation instead of efficiencies. Similarly, free high technology services are also forms of software that can be disseminated almost instantaneously through the internet. For instance, if you a search engine or social network wants to implement a new feature, it simply needs to upload the new feature on its website and suddenly all can access and use the new feature. With a media player it may take time to download a new feature. In that sense, search engines and social networks are even more efficient in terms of distribution than the already very efficient media player producers. Hence, efficiency plays an even smaller role in such cases. Furthermore, on a more general level, the nature of internet and online technology just leads

³²⁷ Case COMP/C-3/37.792 Microsoft- See paragraphs 958 & 969

to efficiency gains that benefit consumers immensely. Efficiency in the online world is extensively significant to the point that it appears to become a given.³²⁸

In very simple terms, consumer welfare and efficiency are on the same page in the case of free high technology. We saw very early on in section 2.2 that this industry can increase consumer welfare by having a large dominant platform. And one of the main reasons behind this is that such a platform can be most efficient when it is at its largest.

2.6 Conclusion- objective to be pursued in free high technology cases

The aim of this chapter was not to determine the most important objective of competition law in general nor was it to establish what the main objective should be. One can appreciate the vastness, complexities and conflicts of the case law, Commission decisions, Commission regulations, competition policies and literature that have gone into the cause of the objectives. Hence, this chapter only aims to reach a conclusion as to the objectives of competition law in a very narrow context i.e. the objective of competition law that must be pursued by the competition authorities when investigating and deciding on free high technology cases.

³²⁸ See for example E Brynjolfsson, M Smith & Y Hu 'Consumer surplus in the digital economy: estimating the value of increased product variety at online booksellers' (2003) 49(11) *Management Science* 1580, 1581 - the internet's ability to present a greater variety of products online for different consumers with different tastes lowers costs significantly. It leads to the saving of costs, in the book sales industry for example, on shelf space and expensive retail outlets.

Our conclusion is as follows:

In the case of free high technology investigations and decisions by the EU Commission, the EU Commission must pursue a consumer welfare objective above all other objectives.

The starting point of this conclusion is the discussion we had on the unique models and economics of the free high technology industry. It was seen that, unlike traditional industries, large dominant free high technology companies are able to provide consumers with a high amount of benefit without the need for competitive pressure within the relevant market. This is because larger companies have larger scale and therefore are able to provide a better quality service, they provide a service for free and they are always incentivised to innovate so that they can maintain a large number of users. Although other technological industries may be able to provide more innovation whilst involving monopoly power, they may charge unwarranted high prices to consumers. This makes free high technologies truly unique and therefore deserve to be considered in a narrow category of their own. From this we figured that if there are any companies that are able to provide high consumer welfare without competitive constraints in the relevant market, it would be free high technology companies. In other words competition does not equal consumer benefit in this industry.

It was then observed that the justifications behind competition policies were based on the opposite notions. Competition law could subsequently lead to problems with the applying competition law to free high technology. Monopolies would be punished on the mistaken idea that increased competition can only lead to higher consumer welfare. Instead, consumer welfare would end up decreasing.

Since consumer welfare and competition are brought into loggerheads with each other when it comes to free high technology, it is imperative that we find out which objective of competition law is most important. This will not only help us understand why the EU Commission approaches free high technology in a particular way in Chapters 3 and 4, but will also help us understand what the result of competition law investigations into free high technology will be. If it is consumer welfare, any increase in the market power of a company would be allowed. If the main objective is protecting competition, then the increase in market power needs to be prevented.

So what are our findings from our descriptive discussion on the doctrine on the objectives of competition law? Since the introduction of the EU Commission's Enforcement Priorities document the emphasis of competition policy has been the prioritizing of consumer welfare. This one thing cannot be denied. Of course, we have seen literature to suggest that in practice, the legal tests and methods put forward by the Enforcement Priorities may not be the most effective in terms of pursuing a consumer welfare objective. However, that is a different matter in the sense that it is a question of effectiveness.

However, one thing that cannot be denied is the fact that the EU courts have not been particularly helpful at promoting the consumer welfare objective. Even in the most recent rebate cases, for example, we saw that the assessment of consumer harm was not considered necessary. However, the latest CJEU appeal decision on the Intel rebates case shows possible court approval of consumer welfare as the main objective. Furthermore, it must be pointed out that the courts have not directly overruled consumer welfare as an objective. All it has stated is that it is not necessary to assess consumer harm or prove it. We have seen that on occasion the courts have made it clear that it believes that consumer harm is caused when

competition is reduced in the market. Hence, by ensuring that there is competition in the market, consumer welfare is automatically protected or improved. This can still fit well with the construction that consumer welfare is the prime objective. It is just that the method of pursuing that objective does not involve a direct method of evaluating consumer harm. Assessing the competitive conditions in the market is enough as that provides a strong indication of the eventual effects on consumers.

In the absence of a clear rejection by the courts of consumer welfare as an objective and where the courts have made a positive link between competition and consumer welfare, consumer welfare is still a superior objective to competition. We have seen literature that has suggested that the courts' methods of assessment are based on sound economics. In other words, when the courts do pursue the protection of competition, it does so based on economic theory that has already strongly established that competition is good for consumers. We also saw several Commission documents that justify pursuing an effective competitive structure for the sake of consumers.

Overall the most likely conclusion is that consumer welfare appears to be the prioritised objective, with competition being the considered as the most important instrument to achieve consumer welfare. However, competition cannot be ruled out as, at the least, a very important objective; we have seen some evidence above to suggest that it is. However, as indicated before, it is not as important to resolve this where most industries are likely to become worse for consumers with less competition. When it comes to free high technologies though, determining which objective is the main one becomes very important.

If consumer welfare is to be prioritised (even slightly) over competition, given that there is a conflict between consumer welfare and competition in the case of free high technologies, then the logical conclusion is that consumer welfare should be the main objective of competition law in free high technology investigations. Competition should not be considered here as even a supporting objective or instrument to achieve consumer welfare as doing so would take the EU Commission away from consumer welfare than in any other industry.

Given that consumer welfare is the main objective, we would expect competition law investigations to result in allowing large free high technology companies to increase their market power. In the next chapter we will observe throughout that the authorities have made decisions according to this theory and in line with the consumer welfare objective; however, the justification for their decisions is confusing. We will see how this pursuance of consumer welfare as an objective whilst sticking to the assumption that competition is good for consumers manifests in confusion in the context of Commission investigations into free high technology service.

CHAPTER 3- RELEVANT MARKET – UNDERSTANDING THE ANALYTICAL FRAMEWORK WITHIN WHICH LIMITATIONS AND INCONSISTENCY OCCURS

3.1 Introduction

Chapter 2 explored the theoretical tension occasioned by monopolistic free high technology companies in the realm of competition law. Free high technology monopolies do not fit in well with the theoretical competition law framework for the regulation of companies with dominance as they are highly innovative and quite importantly, provide services for free to consumers. Current competition law theory is based on the presumption that more competition and less dominance are good for consumers. Hence, we saw how one of the competition law objectives of protecting competition comes into conflict with the notion of protecting consumers. This led to a discussion on the objectives of competition law. It was concluded that the literature appears to generally agree that EU competition law pursues a plurality of goals including consumer welfare and the protection of competition. Whilst that is the case, the protection of consumers seems to have a higher status. In this chapter and Chapter 4, we now turn to look at how these theoretical tensions manifest in inconsistency and limitations in the analysis and reasoning of the EU Commission in free high technology investigations. In doing so, at the end of Chapter 4 we establish and justify our hypothesis about the obscured reasons why the EU Commission adopts a limited and inconsistent approach.

Chapter 3 specifically discusses the framework within which free high technology investigations are assessed. Before we begin our analysis of the substantive arguments of the EU Commission in Chapter 4 we must understand the analytical framework within which most of the arguments are put forward. Therefore, this chapter helps us understand how the required style of analysis favours the maintenance and increase of competition. It is important to understand this as the fundamental competition treaty provisions do not clearly indicate whether increases in competition are to be favoured. Article 102 TFEU does not directly refer to any outlawing of reductions in competition. The Merger Regulations indicate the outlawing of any ‘significant impediment to effective competition’. As discussed in the Introduction Chapter ‘effective’ competition will have to be interpreted according to what the fundamental objective(s) of competition law are at the time. Hence, only by understanding the operation of the current analytical framework can we understand whether increases in competition are being favoured.

Market definition is the main analytical framework to start with. It is the exercise which determines the relevant market. In determining the relevant market, it must be shown how substitutable potential competitors’ products/services are. The question of substitutability then is very much affected by arguments about network effects and product/service quality. These will be looked into more closely in Chapter 4.

This chapter serves two main purposes. First, we scrutinise how the analytical framework works and we discover how its very basic demands are incoherent with the theory on free high technology. In other words, the framework reflects a major concern over the level of competition in the market; the fewer competitors there are the more likely the

incumbent/merging parties will be prevented from taking any action that increases their market power. We therefore begin to see an inadequate framework for free high technologies. Second, simultaneously we consider several points where the EU Commission has analysed the relevant market in a potentially limited manner, contributing to our problem of legal uncertainty and confusing rationale.

Market definition and substitutability analysis are some of the many manifestations in competition analysis of the wider presumption that competition is good for consumer welfare, which we saw in section 2.3. It will be seen that the exercise of market definition, which is a purportedly compulsory and important part of any competition case,¹ strongly focuses on the number of competitors in a market and competition dynamics; it aims to help look at the number of competitors in the market and eventually determine whether there is enough competition. Hence, market definition is part of an analysis which is based on the idea that more competition is good for consumers. One can therefore already surmise that the market definition exercise contributes to building up a limited picture of the relationship between competition and consumer welfare in free high technology markets. We remember from section 2.2 that free high technology companies can be large and increasingly dominant whilst simultaneously providing high benefits to consumers.

However, there have been some anomalies in free high technology investigations that appear to have undermined the role of the relevant market. Does this however mean that the EU Commission has replaced market definition with another form of analysis that is not as

¹ See J Silhan 'The Concept of Relevant Market: Some Critical Remarks' (2012) 33(12) E.C.L.R 589

concerned with the protection of competition but with that of consumers directly? This is a question worth looking into given that market definition has a permanent place in every competition case. It is crucial as the final ultimate decision of competition cases is purported to depend very much on market definition.² The purpose of market definition is to determine who the competitors of the concerned entity being investigated are.³ Market definition therefore very much revolves around determining the competition dynamics associated with a particular product/service; in other words it focuses on the amount of restrictions/pressure the concerned entity faces from other competitors.⁴ It is therefore very much centred on the objective of protecting competition.

In short, here is an example of how market definition can theoretically affect the final outcome of a case including those concerned with free high technology services. A narrow market definition, for example, would mean that the relevant market would contain fewer substitutes supplied by competitors.⁵ This in turn, would give the company under investigation a larger share of the market; therefore it is likely that the company is to have a more dominant share under such a framework set by the narrow market definition and therefore faces less competition/competitive pressure.⁶ A wider market definition would be one where the relevant market contains a significant number of substitutes (produced/provided by a significant number of different competitors) that consumers can

² Ibid

³ See Commission notice on the definition of relevant market for the purposes of Community competition law [1997] OJ C 372 para 2

⁴ Ibid

⁵ See J Silhan 'The Concept of Relevant Market: Some Critical Remarks' (2012) 33(12) E.C.L.R 589

⁶ Ibid

switch to; hence there is more competition faced by the entity, lower market share and therefore likely to have a less dominant position.⁷

When it comes to free high technology services, the way market definition is analysed in practice by the EU Commission appears to allow for a perceived situation where there are many alternative products/services and therefore a less dominant company. The Notice on Market Definition recommends that market definition be determined through the Small but Significant Non-transitory Increase in Price (SSNIP) test.⁸ In this test one starts off with a hypothetical monopolist who is the entity under investigation.⁹ It is assumed that the entity is the sole producer of the relevant good/service in the market.¹⁰

Next a SSNIP (usually of no more than 5%) is applied to the good; if consumers in that market can switch to another product in response to this SSNIP as an appropriate substitute and to a proportion that imposes losses on the hypothetical monopolist, then all producers of that product will become part of the market and become part of the hypothetical monopolist.¹¹ This exercise is repeated until consumers switch to a proportion where the hypothetical monopolist makes a gain/profit in response to the SSNIP.¹² At this point the potential substitutes are not of a high enough substitutability to cause a greater proportion of consumers to switch. The final hypothetical monopolist will therefore contain all the different

⁷ Ibid

⁸ See Commission notice on the definition of relevant market for the purposes of Community competition law [1997] OJ C 372 para 17

⁹ Ibid

¹⁰ Ibid

¹¹ Ibid

¹² Ibid

products by different producers and will become the relevant market for the good/service in question.¹³

However the issue here is that price is irrelevant in the case of free high technology company services. Logically speaking, in the absence of price consumers will only switch provided the substitute is of a higher/unique/more innovative quality. What we see however, is that there is no discussion of this when it comes to substitutes of free high technology; there is just a simple discussion on substitutability without any discussion as to whether or not the substitutes are meritorious. By doing so, it makes it appear as though the pure focus is on the number of competitors in the market as opposed to the benefit that consumers gain from having more alternatives in the market. However the Organisation for Economic Co-operation and Development (OECD) has discussed the possibility of using a test similar in methodology; the small but significant non-transitory decrease in quality (SSNDQ) test has been considered as a possible complement to the SSNIP.¹⁴ The methodology of the test would involve asking whether a 25% decrease in major performance attribute of a particular type of product would lead to substitution by consumers with another product.¹⁵ If it did, those other products would be considered as part of the relevant market; if not, then the original product would constitute the relevant market.¹⁶

¹³ Ibid

¹⁴ See OECD, 'The Role and Measurement of Quality in Competition Analysis' (DAF/COMP(2013)17, Oct. 28, 2013) 8 available at <http://www.oecd.org/competition/Quality-in-competition-analysis-2013.pdf> accessed on 4 August 2018

¹⁵ Ibid 15

¹⁶ Ibid

However, the approach to market definition in free high technology company investigations appears to be non-stringent. There are certain methods of analysis by the EU Commission for example that appear to undermine the role of market definition. My research reveals two methods that the EU Commission uses that reduce the role of market definition.

First is the subsequent consideration of the closeness of substitutes and complements within a relevant market after it has already been defined. We will see how in *Facebook/Whatsapp*¹⁷ such a practice can present a skewed version of market share (which is in turn indicative of market power). The EU Commission defined a market for communication applications placing both Facebook and Whatsapp in the same market only to then later on determine that they were complements. If they were determined to be complements from the very beginning, their respective relevant markets would have been narrower and their market shares would have been amplified.

Second is the practice of leaving market definitions wide and open; in other words, the practice of not carrying out a full market definition exercise. We will see that the main issue with these practices of not adhering to a traditional market definition exercise leaves competition authorities with the option of being very flexible with its views on market share and power that may appear arbitrary. If the peripheries of the market are not well defined to begin with, a skewed view of market share can always be presented. However, despite these anomalies, it will be seen that whichever way market definition and substitution is analysed,

¹⁷ *Facebook/Whatsapp* (Case No COMP/M.7217) [2014] available at http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf accessed on 23rd July 2017

the overall competition analysis very much still remains concerned with the availability of alternative competitors. Hence, again we will see how the EU Commission's assessment is mainly relevant to the availability of competitors.

Before we consider these in detail it would be logical to start with the place of market definition in free high technology cases.

3.2 Market definition: Its supposed place in high technology investigations of the EU Commission

There are no specific and special rules and regulations on market definition to be used in high technology cases. There are only general rules on market definition which apply across the board to all competition cases. By considering these rules one can determine the supposed place market definition should have in free high technology case.

Generally market definition is a crucial part of competition law¹⁸ and a proper definition is required in concentration cases.¹⁹ It is considered a very necessary pre-condition in establishing dominance cases.²⁰ The requirement of considering dominance is seen in both Article 102 TFEU and the Merger Regulations, which prohibits companies from abusing their

¹⁸ G Gerven & H Crossley 'Market Definition: Where do we stand in Europe?' in Barry E Hawk (ed) *International Antitrust Law & Policy: Fordham Competition Law 2012* (Juris Publishing 2013)

¹⁹ Joined Cases C-68/94 & C-30/95 *France v Commission* [1998] ECR I-1375

²⁰ Case T-62/98 *Volkswagen v Commission* [2000] ECR II-2707

dominant position in a relevant market within the internal market and prohibits the impediment of effective competition through the strengthening of a dominant position respectively.²¹ An example of abuse would be ‘limiting production, markets or technical development to the prejudice of consumers’²².

Dominance is a position where a company has the economic strength to prevent effective competition from taking place in the relevant market due to its ability to behave independently to a considerable extent without having to worry about the actions or reactions of their competitors, customers and consumers.²³ Dominance is fundamentally equated to substantial market power in competition law cases under Article 102 TFEU in general.²⁴ Furthermore, courts generally rely on market share for an indication as to the level of dominance a firm possesses.²⁵ It is market definition which makes it possible to calculate these market shares.²⁶ It is a tool used to identify the relevant product market, which ‘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’²⁷. It also identifies the relevant geographic market which is a geographic ‘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...’²⁸.

²¹ Article 102 of the Treaty on the Functioning of the European Union

²² *Ibid*

²³ Case 27/76 *United Brands v Commission* [1978] E.C.R. 207, para 38

²⁴ *Vodafone/Singlepoint* (COMP/M.3245) [2003] para 24 at

http://ec.europa.eu/competition/mergers/cases/decisions/m3245_en.pdf accessed on 15th August 2015

²⁵ *Valentine Korah Cases and Materials on EC Competition Law* (Third Edition, Hart Publishing 2006) pg 98

²⁶ Commission notice on the definition of relevant market for the purposes of Community competition law [Official Journal C 372 of 9.12.1997] paragraph 2

²⁷ *Ibid* para 7

²⁸ *Ibid* para 8

Therefore an important role of market definition is to look for genuine substitutes that can or could be potentially supplied by alternative suppliers to consumers.²⁹ Once all the substitutes are identified under a market definition exercise, the investigating authorities/courts can be assisted in understanding how competition operates amongst the specific substitutes.³⁰

However, although market definition is considered necessary in competition cases and investigations³¹, it is not always the main factor in the conclusion of a competition case or investigation and is not always the main goal.³² For instance in many of the European Commission's investigations the product market definition associated with the concerned parties is left open especially when resources are limited.³³ The EU Commission nowadays goes for a more wholesome analysis where market definition is one of many parts of it.³⁴

But even if market definition is not the main goal, it helps extensively in achieving one of the main goals; i.e. to get a clear picture of the competitive conditions in the market. This can be seen in the fact that, regardless of whether the market definition of a product is definitively

²⁹ Case T-342/99 *Airtours plc v Commission* [2002] E.C.R II-2585 paragraph 20

³⁰ A. Lindsay & A. Berridge *The EU Merger Regulation: Substantive Issues* (4th edn, Sweet & Maxwell 2012) pg 100

³¹ Joined Cases C-68/94 & C-30/95 *France v Commission* [1998] ECR I-1375 paragraph 143

³² See speech by Joaquin Almunia 'Policy Objectives in Merger Control' (Fordham Competition Conference, New York, 8 September 2011) available at http://europa.eu/rapid/press-release_SPEECH-11-561_en.htm?locale=en accessed on 21st July 2017

³³ See Speech by former European Commissioner for Competition Policy, Mario Monti 'Market Definition as a cornerstone of EU Competition Policy' (Workshop on Market Definition - Helsinki Fair Centre, Helsinki, 5th October 2001) available at http://europa.eu/rapid/press-release_SPEECH-01-439_en.htm?locale=en accessed on 21st July 2017

³⁴ I. Gotts, B. Lasserre, L. Kaplow, K. Kuhn, R. Shehadeh, G. Gerven and J. Werden 'Market Definition in Antitrust' in Barry E Hawk (ed) *International Antitrust Law & Policy: Fordham Competition Law 2012* (Juris Publishing 2013)

determined in a Commission investigation, it is always discussed extensively. It is very important in determining the level of dominance of the concerned party(ies); abuse or a reduction in effective competition can only be established once dominance is established. For example, it is only when dominance is established that the abuse of it needs to be proved in order to establish an infringing action.³⁵ Article 102 highlights particular actions that can be considered as abuse ranging from imposing unfair prices/trading conditions to imposing obligations that are unrelated to the subject of the contract.³⁶ This is a non-exhaustive list. For instance, although there is no direct reference to mergers in Article 102, the strengthening of a company's market position through a merger is also considered an abuse where it is found that the likely result of it is harm to consumers.³⁷

We can therefore conclude that whilst market definition is not the one determining factor in the assessment of a competition case, it is still a very necessary process that is required in all competition investigations under Article 102 TFEU. We can therefore justifiably include it as part of our analysis as an important factor in the determination of free high technology cases.

3.3 Market Definition's practical operation in high technology cases

Now that we have elicited the necessary assumed role that market definition is to play in free high technology cases, we now have to consider how the role operates in practice. As already seen, once the market is defined, the case analysis is generally only meant to involve the companies in that bound market; only the competitive restraints emanating from the

³⁵ Article 102 of the Treaty on the Functioning of the European Union

³⁶ Ibid

³⁷ Case 6/72 *Continental Can : Europemballage Corporation and Continental Can Co. Inc. v Commission* [1973] CMLR 199 Paras 25 to 27

companies operating in that market are to be analysed. Research for the thesis however has revealed that such analysis within clearly demarcated boundaries does not take place in high technology cases such as *Facebook/Whatsapp*³⁸ and *Microsoft/Skype*.³⁹ At times, the analysis includes considering restraints from outside the defined relevant market; at times the EU Commission, through their very own analysis, appears to cast doubt on whether two products they have placed in the same market are at all substitutable. Either way however, the questions are always based on the availability of and access to substitutes, which in turn reflects the presence of a degree of competition.

What will be seen in the below analysis is that the EU Commission overall appears to treat the demarcation of a relevant market only as a loose guidance. This will be seen in the context of cases such as *Facebook/Whatsapp*. The EU Commission may for instance, define the market and then further question actually how substitutable the products within the market they have just defined actually are. The EU Commission may also at times, leave the question of market definition quite open and carry out what may appear to be an arbitrary analysis involving products/services that are not substitutable with each other. At the end more importantly though, we will see how these less strict approaches to market definition are simply replaced by alternative ways to consider the level of competition in the market.

We begin by looking at ‘closeness of competition’ analysis with special emphasis on the *Facebook/Whatsapp* case where a possible arbitrary market definition exercise takes place.

³⁸ *Facebook/Whatsapp* (Case No COMP/M.7217) [2014] available at http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf accessed on 23rd July 2017

³⁹ *Microsoft/ Skype* (Case No COMP/M.6281) [2011] at http://ec.europa.eu/competition/mergers/cases/decisions/m6281_924_2.pdf accessed on 5th February 2015

3.4 ‘Closeness of Competition’ analysis- a reflection of how the perceived relevant market is manipulated

Research for the thesis reveals that the EU Commission’s approach to ‘closeness of competition’ analysis may appear to be at loggerheads with the market definition exercise of clearly determining which products are substitutable with each other. *Facebook/Whatsapp*⁴⁰ provides a good example of this potential conflict.

In the *Facebook/Whatsapp* merger investigation a market was established for consumer communications applications for smartphones only and a market for online advertising.⁴¹ Under both discussions with regards to the two markets, the analysis was in fact limited to the companies present only in that market.⁴² However, having defined the boundaries of the market, the EU Commission concluded that Facebook and Whatsapp were not really close competitors in that area. As we have already seen, a relevant market is to only include products or services that are genuinely substitutable. With that in mind it would be reasonable to expect the EU Commission to determine whether they are close competitors at the stage of defining the market. In the case of Facebook and Whatsapp this approach would logically narrow the market definition. That is, if they were not considered to be close competitors in the first place, theoretically this would mean that they would be placed in different and narrower relevant markets; each company would have a larger share in those markets due to the narrowness leading to a more likely finding of dominance. Even though this would mean

⁴⁰ *Facebook/Whatsapp* (Case No COMP/M.7217) [2014] at http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf accessed on 3rd February 2015

⁴¹ Ibid

⁴² Ibid

that Facebook and Whatsapp would not be considered competitors and therefore they wouldn't be eliminating themselves as a competitor through the merger, their respective dominance in their own markets could allow them to tip each other's customers into using both their products.⁴³

Hence, we can see how the closeness of competition assessment reduces the effect of market definition. However, whilst it does that, it does not eliminate the focus on the objective of protecting competition. Although a strictly narrower relevant market is not advocated, the assessment is still very much concerned with whether or not there is another competitor restraining the incumbent.

3.4.1 The legality of the 'closeness of competition' analysis

Above, we saw the conceptual conflicts between market definition and 'closeness of competition' analysis. It is therefore important to determine whether this type of analysis is legitimate in the first place and can therefore be used as an additional tool that focuses on the level of competition in the market by the EU Commission.

It would be incorrect to assume that all the products within a defined relevant market are close substitutes; it is possible for some level of differentiation to exist between the competing products, preventing them from being easily/closely substitutable.⁴⁴ Because of

⁴³ Ibid

⁴⁴ Richard Schmalensee 'Another Look at Market Power' (1984) 14(2) *J. Reprints Antitrust L. & Econ.* 701, 705

this, an exercise purely constituting market definition analysis is insufficient; other factors (as we have seen in *Facebook/Whatsapp* where after the market definition exercise the closeness of competitors was considered) need to be considered.⁴⁵ Also, there is a strong indication in EU merger guidance that this sort of analysis of assessing levels of substitutability/closeness after the market has already been defined is acceptable.

In the ‘Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings’ it states that products within a relevant market may be differentiated to the point where some products are closer alternatives compared to others.⁴⁶ In other words, after the relevant market is defined, there can be a consideration of whether or not the alternatives available are close; this issue does not have to be resolved at the stage the market is defined. This is especially considered true for differentiated products within a relevant market where the difference in quality makes some substitutes closer competitors than others.⁴⁷ Substitutes in these situations are known to be imperfect; the closer the substitution the more the merging parties exert competitive pressure on each other and therefore the more likely this competitive pressure will be lost in the relevant market post-merger.⁴⁸ Even the US merger guidelines accepts a similar approach.⁴⁹ They also indicate that very often the evidence required for determining market definition is

⁴⁵ Ibid 705-706

⁴⁶ Council Regulation (EC) of 5 February 2004 on Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (2004/C 31/03) [2004] OJ C 31/5 at paragraph 28

⁴⁷ Stefan Thomas ‘Close Competitors in Merger Review’ (2013) JECL&Pract 1, 2

⁴⁸ The Merger Working Group ‘The Role of Economists and Economic Evidence in Merger Analysis (Presented at the 12th Annual Conference International Competition Network April 24-26 2013) p 20 available at <http://internationalcompetitionnetwork.org/uploads/library/doc903.pdf> accessed on 21st July 2017

⁴⁹ Horizontal Merger Guidelines (US Department of Justice and Federal Trade Commission, August 19th 2010) paragraph 6.1

the same used for determining the closeness of substitutes; however they are still two separate stages and therefore should not be confused with each other.⁵⁰

The second stage involving the assessment of closeness of competition is necessary as, for instance, assumptions that all products within a defined market are equally substitutable could lead to an incorrect assessment of competitive restraints within the market; the reality is that products hold varying degrees of substitutability.⁵¹ Such analysis of considering the varying closeness of products has come to be known as unilateral effects analysis; it is considered different from an analysis which is purely based on dominance determined by the share of a company within a defined relevant market.⁵²

It is, though, important to note that the EU Commission has on occasion placed significantly more importance on the market definition/share stage and dominance than unilateral effects analysis where the market share reaches particularly high thresholds.⁵³ For instance, in the case of *AKZO* the then European Court of Justice stated that a market share of over 50% was to be considered as evidence of a dominant position.⁵⁴ Despite this, the market definition stage can still be looked at only as the starting point of the analysis.⁵⁵ This principle is reflected by other official merger investigations as well. For instance in the *Nortel/Norweb* merger investigation despite there being a determination of a post-merger market share of

⁵⁰ Ibid

⁵¹ John Vickers 'Competition Economics and Policy' (2003) 24(3) E.C.L.R. 95, 100

⁵² Sven B Volcker 'Mind the Gap: Unilateral Effects Analysis Arrives in EC Merger Control' (2004) 7 E.C.L.R. 395

⁵³ See Case 85/76 *Hoffmann-LaRoche & Co v Commission of the European Communities* [1979] ECR 1979 - 00461 paragraph 50, 47% market share was considered to indicate a dominant position

⁵⁴ Case 62/86 *AKZO Chemie BV v Commission of the European Communities* [1991] ECR 1991 I-03359 paragraph 60

⁵⁵ Stefan Thomas 'Close Competitors in Merger Review' (2013) JECL&Pract 1, 7

100%, the EU Commission commented that this did not automatically or necessarily indicate a dominant position; it went beyond the market definition exercise and took into account other factors such as the possibility of other resourceful companies entering the market and applying competitive constraints.⁵⁶

This sort of treatment of market definition as a secondary factor at times appears to be a well-established approach of the EU Commission and is therefore nothing particularly specific to free high technology cases. For example, the EU Commission has in the past placed products that have low levels of substitutability with each other in the same relevant market. In 2000, in the horizontal merger case of *Volvo/Renault* a market for heavy trucks was clearly defined; however, at the competitive assessment stage this did not prevent the EU Commission from agreeing to evidence that strongly suggested that Volvo and Renault were distant competitors due to their price differences (indicating that consumers had the impression that the heavy trucks of the two different companies were of different quality); this led to the conclusion that their concentration did not raise competition concerns in the market for heavy trucks in France.⁵⁷

In 2002, as a further example, the EU Commission's merger decision in *Barilla/BPS/Kamps* a market for bakery products containing many differentiated products was mentioned; it was considered that within that market, particular companies specifically put more of a competitive constraint on each other as their corresponding products were closer substitutes

⁵⁶ *Nortel/Norweb* (Case No IV/M.1113) [1998] para 25 available at http://ec.europa.eu/competition/mergers/cases/decisions/m1113_en.pdf accessed 21st July 2017

⁵⁷ *Volvo/Renault V.I.* (Case IV/M.1980) [2000] paragraph 34 available at http://ec.europa.eu/competition/mergers/cases/decisions/m1980_en.pdf accessed 21st July 2017

than those of others.⁵⁸ In both cases the EU Commission did not further subdivide the market according to the differentiated products.

Furthermore, there is support for this approach in literature and other cases to the extent that the 'closeness of competition' analysis is considered even more important than the market definition exercise itself. For example, the new merger test allows for situations where there are competition concerns in the absence of high market share; this can especially happen where two merging companies with small shares are very close competitors.⁵⁹

It also appears that since 2004 when the new merger regulations were implemented⁶⁰ that the assessment of the closeness of competitors may actually take priority over market definition itself. For instance, in the EU Commission's Decision in *SCA/P&G*, based on evidence showing that both companies were losing sales over the year in branded toilet paper (as opposed to losing sales to each other), it was decided that the merging of the two concerned parties did not remove a significant competitive constraint on them; the evidence was seen to indicate that the two companies were not close substitutes of each other when it came to branded toilet paper and therefore there were no serious doubts on that particular market.⁶¹ Here the specific focus appeared to be on the relationship between the two merging parties.

⁵⁸ *Barilla/BPL/KAMPS* (COMP/M.2817) [2002] available at

http://ec.europa.eu/competition/mergers/cases/decisions/m2817_en.pdf accessed on 21st July 2017

⁵⁹ See L Roller & M de la Mano 'The Impact of the new substantive test in European Merger Control' (European Commission 22nd January 2006) available at

<http://ec.europa.eu/dgs/competition/economist/new_substantive_test.pdf> accessed on 17th February 2016, Thomas Buettner 'Closeness of competition from an economic perspective' (2016) 7(10) J.E.C.L. & Pract. 690 and Berg W & Sophia R 'How close is too close? A critical review of the European Commission's Assessment of Closeness of Competition' (2016) 7(7) J.E.C.L. & Pract. 442

⁶⁰ Council Regulation (EC) 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation) (2004) OJ L24/1

⁶¹ *SCA/P&G (European tissue business)* (Case no. COMP/M.4533) [2007] paragraphs 120–124 available at http://ec.europa.eu/competition/mergers/cases/decisions/m4533_20070905_20212_en.pdf accessed on 21st July 2017

That is, did they lose sales to each other? Since the evidence suggested that they did not, that in itself would be enough to suggest that they faced other competitors (without needing to carry out a formal definition of the market). This was further directly seen in the EU Commission's decision in *Porsche/Volkswagen* where, despite it being found that both companies had very high market shares in a wider market, there was no significant impediment to competition as they were not close competitors; Porsche's main focus was on sports vehicles whilst Volkswagen's was on passenger and commercial vehicles.⁶² Again, market shares also took a back seat to a closeness of competitors' assessment in the EU Commission Decision of *T-Mobile Austria/tele.ring*; here the two merging parties in fact had low market shares in the market but because they were very close competitors, the EU Commission concluded that there would be a possibility of significant impediment to effective competition.⁶³

Therefore, it appears from the above cases that an assessment of the closeness of competition post-market definition has become regular practice on the part of the EU Commission.⁶⁴

Such analysis has occurred in cases involving derivatives,⁶⁵ postal operators⁶⁶ and telecommunications⁶⁷ as well. One cannot therefore vilify the EU Commission's approach in

⁶² *Porsche/Volkswagen* (Case no COMP/M.5250) [2008] available at http://ec.europa.eu/competition/mergers/cases/decisions/m5250_20080723_20310_de.pdf accessed 23rd July 2017

⁶³ *T-Mobile Austria/Tele.ring* (Case no COMP/M.3916) [2006] paragraph 125 available at http://ec.europa.eu/competition/mergers/cases/decisions/m3916_20060426_20600_en.pdf accessed on 23rd July 2017

⁶⁴ Stefan Thomas 'Close Competitors in Merger Review' (2013) JECL&Pract 1, 2

⁶⁵ *Deutsche Borse/NYSE Euronext* (Case no COMP/.6166) paragraph 543 available at http://ec.europa.eu/competition/mergers/cases/decisions/m6166_20120201_20610_2711467_EN.pdf accessed on 23rd July 2017

⁶⁶ *UPS/TNT* (Case no COMP/ M.6570) [2013] available at http://ec.europa.eu/competition/mergers/cases/decisions/m6570_20130130_20610_4241141_EN.pdf accessed on 23rd July 2017

⁶⁷ *Orange/H3G* (Case no COMP/M. 6497)[2012] available at http://ec.europa.eu/competition/mergers/cases/decisions/m6497_20121212_20600_3210969_EN.pdf accessed on 23rd July 2017

cases like Facebook. There are clear grounds in the guidance and previous case law for having an analysis of closeness post-market definition. More importantly, what it also means is that such analysis is grounded in EU competition law and therefore emphasizes, once again, that the main concern is with the level of competition in the market. Determining the closeness of competition refers to figuring out whether two products are competing. If they are close, the producers of the two products merging would be a problem. This is because competition in the market would be reduced. This again reminds us of how the theory on free high technology might come into conflict with the consumer welfare objective that the EU Commission has set itself to achieve. It strongly runs on the idea that competition is good for consumers.

Next, we consider another form of analysis that takes the closeness of competition test a step further; putting two services together in the same relevant market before determining them as complements.

3.4.2 Complements within a Defined Relevant Market

The *Facebook/Whatsapp* decision expresses a peculiar method of analysing complements within a defined relevant market. The method merits consideration for two reasons. First, it displays another method of analysis that once again focuses on whether goods are substitutable and therefore whether the goods' producers are competitors. It is concerned with competition above all else. Second, it is concluded to be a limited method of analysis in terms of market definition.

The *Facebook/Whatsapp* decision however, went beyond considering the companies' different communications applications as substitutes and determined them to be complements in terms of the potential social network market (which was left open).⁶⁸ The EU Commission went a step further and stated that the two applications were used simultaneously by most users and they both fulfilled different needs.⁶⁹ Simultaneous use of products can be a good indication that they are complements.⁷⁰ The notion of complements being present in the same market needs to be explored. It is important because if complements are allowed to be placed in the same relevant market, the market definition exercise becomes merely a charade of attempting to clearly group products that are substitutable.

In the cases we saw in the previous section, the assessment of closeness involved products that were still considered as substitutes, just with different levels of substitutability.

Considering them as complements that fulfil different needs for customers is probably a stronger indication that they are in different markets. Unless demand for complements is directly influenced by that of the original products, they should be placed in different markets.⁷¹ For instance, consumers may decide to purchase a photocopier depending on the price of toner; in other words if the price of toner is very high, the consumer may decide not to purchase the photocopier.⁷² In such cases the two products could be placed in the same

⁶⁸ *Facebook/Whatsapp* (Case No COMP/M.7217) [2014] paragraph 151 available at http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf accessed on 23rd July 2017

⁶⁹ *Ibid* paragraph 157

⁷⁰ See Cento Veljanovski 'Case Comment; Markets in Professional Sports: Hendry v WPSBA and the importance of functional markets' (2002) 23(6) ECLR 273, 276- Author described how a snooker player cannot be a complement to clashing tournaments as he/she cannot be present at both tournaments simultaneously. Hence one player can only be a substitute of another in these situations.

⁷¹ A Fruh & D Mamane, 'Switzerland: anticompetitive practices- motor vehicle distribution' (2015) 36(5) ECLR. 56

⁷² Cento Veljanovski 'Markets without substitutes: substitution versus constraints as the key to market definition' (2010) 31(3) ECLR. 122

relevant market despite not being directly substitutable with each other; demand for both products would move in the same direction in response to the same change in price.⁷³ Below in sections 3.2.4.1 and 3.2.4.2 we will see the various scenarios in which complements can be justifiably considered to be in the same market in competition cases.

3.4.3 Complements as a single product together

It is imperative that we consider other cases to establish how complements have been historically approached. This will shed light on whether the complements analysis in *Facebook/Whatsapp* was accurate and appropriate.

In the *Google/DoubleClick* investigation complementary products/services (provision of advertising space and ad-serving technology) bundled together were considered as potentially a single product competing against other bundled and unbundled solutions.⁷⁴ It was determined that there was a lack of competitive concern with regards to this potential competition for other reasons;⁷⁵ nonetheless it goes to show that the EU Commission is of the opinion that complements may be in the same relevant market at least where they are bundled together.

⁷³ See Cento Veljanovski, 'Assessing After markets: The Digital Undertaking' (Casenote, *Case Associates Competition and Regulatory Economist* 1998) available at <http://www.casecon.com/data/pdfs/casenote14.pdf> accessed on 23rd July 2017

⁷⁴ *Google/DoubleClick* (Case No COMP/M.4731) [2008] paragraphs 192-194 available at http://ec.europa.eu/competition/mergers/cases/decisions/m4731_20080311_20682_en.pdf accessed on 24th July 2017

⁷⁵ *Ibid*

This is also supported in other decisions. In *Pelican/Kyocera*,⁷⁶ Kyocera was said to possess dominance in the market for Kyocera printer compatible toner.⁷⁷ Pelican argued that Kyocera was abusing its dominance in this narrow market by tying the toner to its printers for customers at an attractive price.⁷⁸ The EU Commission did not agree to this statement and said that the market was wider and included both printers and toners of all companies.⁷⁹ Relatively low switching costs for hardware and the fact that consumers made an informed choice to enter into life cycling costs, meant that consumers could switch to a different company in a reasonable period should they find that the consumables are too high in price.⁸⁰ The same principle was enforced in a similar case namely *Infolab/Ricoh* which involved photocopy machines and toners for those machines.⁸¹ It was also emphasized in that case however, that the company must have a dominant market share in order to be found guilty of impeding competition.⁸²

Hence, a guiding principle could be that in order for complements to be in the same relevant market, whether or not they are tied/bundled would have to be taken into consideration . This is not to say that all tied/bundled products must be construed as being in the same relevant

⁷⁶ *Pelikan/Kyocera* (Case no IV/34.330) [1995] available at http://ec.europa.eu/competition/antitrust/cases/dec_docs/34330/34330_21_3.pdf accessed on 24th July 2017

⁷⁷ Ibid

⁷⁸ Ibid

⁷⁹ Ibid

⁸⁰ Ibid

⁸¹ *Info-Lab/Ricoh* (Case No IV/E 2/36.431) [1997] available at http://ec.europa.eu/competition/antitrust/cases/dec_docs/36431/36431_7_3.pdf accessed on 24th July 2017

⁸² Ibid

market,⁸³ but whether or not they are tied plays a factor.⁸⁴ The *Facebook/Whatsapp* investigation did not mention any tying of their communications applications; therefore under this guidance their applications should not have been placed in the same relevant market.

3.4.4 Complements in separate markets

We now turn to other cases where complements have been placed in different markets. We can consider whether the principles from these cases allow Facebook and Whatsapp services to be placed in the same relevant market and hence assess the accuracy of the EU Commission's analysis in *Facebook/Whatsapp*.

In recent cases the EU Commission also placed complements in separate markets. The *Intel/McAfee* investigation, for example, stated that there was a strong possibility that the merging parties' complementary products could give rise to anticompetitive conglomerate effects despite there being no horizontal or vertical overlaps in terms of relevant markets.⁸⁵

⁸³ See The Unilateral Conduct Working Group 'Unilateral Conduct Workbook, Chapter 6: Tying and bundling' (April 2015, 14th ICN Annual Conference) paragraph 32 available at <http://www.internationalcompetitionnetwork.org/uploads/2014-15/icn%20unilateral%20conduct%20workbook%20-%20chapter%206%20tying%20and%20bundling.pdf> accessed on 26 August 2018- the author distinguishes considering two complements forming a single product from putting them in the same relevant market. There is a possibility that complements, such as shoes and laces, form a single product, but may have different relevant markets depending on the circumstances.

⁸⁴ See C Ahlborn D Evans 'The Microsoft Judgment and its Implications for Competition Policy towards Dominant Firms in Europe' (2009) 75(3) Antitrust L.J 887, section 2- Although the EU Commission dismissed the argument, Microsoft tried to argue that because the windows media player and operating system were generally demanded together they both should be considered as a single product.

⁸⁵ See *Intel/McAfee* (Case No COMP/M.5984) [2011] paragraphs 120-121 available at http://ec.europa.eu/competition/mergers/cases/decisions/m5984_1922_2.pdf accessed on 10th March 2015 - Conglomerates usually do not give rise to competitive concerns, but they can where practices such as exclusionary bundling and tying take place.

The EU Commission has also separated complements into different markets in the past. In the *Digital Undertaking* investigation the EU Commission defined two separate markets for complements; the company under investigation tied its hardware to its software services at a very attractive price causing the foreclosure of software services provided by competitors in the secondary aftermarket.⁸⁶ It was found that the software services for the company's hardware were not substitutable by that of any other company; customers were locked in and faced high switching costs (customers would have to purchase new hardware at high cost to avoid the software services cost).⁸⁷ The company was found to be dominant in both relevant markets due to these factors and the EU Commission concluded that they were exploiting their position in the different markets.⁸⁸ However, this decision was later criticized and considered to be incorrect in terms of the conclusion of dominance in both markets simply due to compatibility.⁸⁹

Such markets involving a single product with no substitutes whatsoever, (sometimes known as single brand markets) have been considered as too narrow by American Law Professor Thomas Kauper.⁹⁰ He has criticized such narrow markets as being grounded in notions of fairness as opposed to economic concerns; the market is to be wider and the focus of the argument should be on lock-in effects and high switching costs independent of the market definition issue.⁹¹ Single brands are definitely considered to create some loyalty amongst

⁸⁶ R Bell & J Cramer 'Competition/antitrust challenges in technology aftermarkets' (*Bryan Cave*, 5 March 2015) available at <<http://eu-competitionlaw.com/competitionantitrust-challenges-in-technology-aftermarkets/>> accessed on 16 September 2017- The author refers to 'The Digital Undertaking (1998) 10 European Competition Law Review 176'

⁸⁷ *Ibid*

⁸⁸ *Ibid*

⁸⁹ Thomas Kauper 'Article 86, Excessive Prices, and Refusals to Deal' (1991) 59 *Antitrust L.J.* 441, 451

⁹⁰ *Ibid*

⁹¹ Thomas Kauper 'The problem of market definition under EC Competition Law' (1996) 20(5) *Fordham Int'l L.J.* 1682, 1698

consumers to the point where demand will not change significantly in response to changes in demand; however a brand in itself is not to constitute the market.⁹²

As we saw above in the section with regards to complements put in wider markets together, the EU Commission itself is usually reluctant to define markets very narrowly; however, there are some exceptions to this where the market share of the company is dominant in the primary market. For example, in the IBM investigation, IBM was seen to have a dominant position in the primary market and therefore through negotiations with the EU Commission committed to provide other companies in the aftermarket the necessary information to provide an after service for IBM machines.⁹³ This commitment seemed to suggest that the IBM after-service complement was considered by the EU Commission to have a market of its own with no alternative; hence, the negotiations with IBM to get the company to share necessary information with other would be competitors in the after-service market.

Despite the criticism we saw above, the guidance that can be extracted here is that where the company in the primary market has a very dominant share in the market the complement can be placed in a market of its own. This appears to be a strategy by which the authorities can paint a more effective picture to be able to address concerns regarding foreclosure. Where market share is very high, tying a complement threatens competitors producing similar/identical complements. Putting that tied complement in a market of its own with no other substitutes effectively creates the impression of a market with hardly any competition

⁹² See A Fruh & D Mamane, 'Switzerland: anticompetitive practices- motor vehicle distribution' (2015) 36(5) E.C.L.R. 56

⁹³ *IBM Maintenance Services* (Case COMP/C-3/39692) [2011] available at http://ec.europa.eu/competition/antitrust/cases/dec_docs/39692/39692_1304_3.pdf accessed on 16th September 2017

present. Where the authorities are not as concerned about foreclosure of competitors producing complements because the acquiring platform has a small market share and therefore tying is unlikely to cause foreclosure, the complement may be put in the same market. We can actually see again a manipulation of market perception, needing to control the number of competitors present in the market.

3.4.5 Summary on when complements can be placed in the same market and when they cannot

It appears that some principles can be derived for complements. In order for them to be in separate markets, switching costs need to be low and customers should have made an informed decision about costs cycling through their own will. One can also see that cases such as *Pelican/Kyocera* and *Infolab/Ricoh* involve complementary products that are absolutely necessary for the use of one of them; that is, one cannot print without ink and ink cannot operate without a printer. In the *Facebook/Whatsapp* case, there appears to be no absolutely necessary ties between the two. The different communications applications can operate independent of each other. Also, in order for abuse to take place the entity that is dominant in its market will usually have to be able to leverage its dominance in another market through tying its product to the complement; without this it would be difficult to place them in the same market.⁹⁴ Given the way the business models work now, Facebook could

⁹⁴ G Niels & H Jenkins 'Reform of Article 82: where the link between dominance and effects breaks down' (2005) 26(11) ECLR 605, 609

not tie its application to that of Whatsapp. Both applications are free of charge in the first place meaning that there is no situation likened to the previous cases where the accused companies were tying products/services together at a discounted price either.

Furthermore, there have been cases where even identical products/services were in different markets based on their different uses by different groups of consumers.⁹⁵ For example, in the *Google/DoubleClick* investigation, although there was no determination of separate markets, the ad serving technologies of Google and Doubleclick were considered not to constrain each other as they catered to different categories of customer.⁹⁶ Therefore, potentially similar products which are considered to provide different functions should also logically therefore belong to different markets. However, as seen already, the EU Commission determined that Whatsapp and Facebook were both used simultaneously (the EU Commission usually terms this practice as ‘multi homing’) and in combination with each other; this would not pose any harm to competition as they would belong to separate markets where they would be competing with different sets of competitors.⁹⁷

⁹⁵ See *Stergios Delimitis v Henninger Brau AG* (Case C-234/89) [1991] available at http://eur-lex.europa.eu/resource.html?uri=cellar:6eddc47b-6bf9-4ab0-be08-52482c69641c.0002.03/DOC_1&format=PDF accessed on 24th July 2017- beer was separated into two different product markets; a beer market for consumers and another beer market for pubs. The pricing was different for the two markets and involved different forms of distribution and levels of distribution costs. Also see Case T-7/93 *Langnese-Iglo GmbH v Commission of the European Communities* [1995] Report of Cases II-1539- ice cream divided into impulse buying market and take home market- both involved different processing equipment, packaging, forms etc.

⁹⁶ *Google/DoubleClick* (Case No COMP/M.4731) [2008] paragraphs 212-221 available at http://ec.europa.eu/competition/mergers/cases/decisions/m4731_20080311_20682_en.pdf accessed on 24th July 2017

⁹⁷ See J Westin, M Healy & B Batchelor, ‘Pharmaceutical co-promotion, co-marketing and antitrust’ (2014) 35(8) E.C.L.R. 402, 404- Author discusses case of *MSD/Roche* (Turkey 2013) where two hepatitis C treatments were considered as a combination therapy and therefore on different markets; hence there was no restriction of competition.

It would be reasonable to observe that complements are therefore more distant from each other than close substitutes; the former can form separate relevant markets whilst the latter can be placed under the same market. The *Facebook/Whatsapp* decision stated the two different communication applications as complements in the same market; however, as we have already seen they do not fall under the principles that allow them to be in the same market.

We can therefore conclude that the decision in this particular respect is potentially flawed. An accurate process of distinguishing complements from close substitutes is important as it can gravely affect the accuracy of the EU Commission decisions.⁹⁸ Theoretically, had they been considered complements as part of the market definition exercise, they would be placed in separate relevant markets where they would each have even greater market share. The increased market share would lead to a more likely finding of dominance which in turn would more likely cause concern for competition. We can therefore see how the EU Commission's practice of including what it would later consider as complements in the same relevant market, could be considered as an artificial way to present a picture of a market with many competitors. This is an important element to note and will be important in forming this thesis' hypothesis.

So far we have discussed the approach of the EU Commission to elements within an established and defined market. Next we will consider how the EU Commission approaches

⁹⁸ See C Veljanovski & R Sarker 'Fixed to mobile substitution: the evidence and its implications' (2006) 27(9) *Comp. Law* 276- Authors state the high importance of correctly determining whether fixed and mobile phone lines are substitutes or compliments as they can have significant impacts on policy and regulation.

market definition before it analyses the elements within it. We will see that market definition is at times left open or is defined very widely.

3.5 Potential effects of Open and Wide Market Definitions on the final decisions of Commission Investigations

In the previous sections we considered cases where the market has actually been defined and how the products/services within that relevant market are compared with each other (i.e. complements and close substitutes). In this section we consider situations where the market definition is left open; in other words where the final boundaries of the market are not ultimately determined and a very wide and loose market definition is considered as a premise. Understanding width of the market definition is important. As we will see, adjusting the width of the relevant market can allow authorities to present the level of competition in a particular light that may be limited regardless of what the more realistic version of competition is. Furthermore, given that we will see how the width of market definitions colour the final decisions of the authorities, it is once again observed that the level of competition in the market is seen as central in all competition law cases.

The lack of a market definition or the presence of wide market definitions may be problematic. Without setting the boundaries of the relevant market or by setting them too wide, the products to be compared may be barely substitutable. This is a potential problem for complainants in competition cases. Complainants will tend to argue that the company under investigation is involved in a very narrow market; the narrower the market the more likely the company would have a higher market share and less competitive constraints from competitors. This in turn, would make intervention by the authorities more likely, therefore

having a significant impact on the ultimate decision in competition investigations.⁹⁹ Josef Silhan summarizes the effect of market definition briefly but comprehensively;

‘Depending mainly only just on how narrowly the relevant market is defined, the conclusions on whether an agreement between competitors shall be banned, a merger permitted or market dominance claimed, stem from the applicable antitrust regulation often more or less automatically then... There are many interesting cases in which the results are strongly influenced by the narrowness or broadness of the defined relevant market in question...’¹⁰⁰

Hence, an open or wide market definition theoretically is likely to prevent a finding of dominance. As seen in Silhan’s statement above results can strongly be influenced by the broadness of a market; the broader the market, the more competition there appears to be. An open/wide definition provides the ability to competition authorities to flexibly present the level of dominance in the market in a particular way; including showing a broader market with lower market power.

A good example of how the width of market definitions can determine the outcome of a case is seen in the judgement of *Hilti AG vs Commission*.¹⁰¹ Hilti was a company that sold power tools; of concern in this case were nail guns that used powder to drive in nails from cartridges.¹⁰² Hilti sold these cartridges (which were the only cartridges compliant with

⁹⁹ See J Silhan ‘The Concept of Relevant Market: Some Critical Remarks’ (2012) 33(12) E.C.L.R 589

¹⁰⁰ Ibid

¹⁰¹ Case C-53/92 P *Hilti v Commission* [1994] ECR I-693

¹⁰² Ibid

Hilti's nail guns and for which Hilti held patents) with nails only as opposed to empty ones; hence dealers in the aftermarket found it difficult to sell any of their own nails to consumers who own Hilti nail guns.¹⁰³ The General Court at the time declared that there was a completely separate market for cartridge and nails that were compatible with Hilti's nail guns.¹⁰⁴ This can be considered a deliberate narrowing of the relevant market with the specific purpose of making it appear as if though the Hilti-compatible nails held 100% market share and therefore absolute market power; this would more likely enable the court to find an abuse of a dominant position.¹⁰⁵ Such a narrowing of the market especially made no sense given that any entity in the EU has the right to produce Hilti compatible nails if it wanted to.¹⁰⁶

Furthermore, in the United Kingdom case of *Hendry v WPBSA* the defendant, a league that specifically organized snooker tournaments and licensed them to broadcasters, attempted to argue that the relevant market was very wide and that it included the broadcasting of all sports similar to snooker (and not snooker alone); hence this prevented the defendant from having a dominant position in the market and therefore posed no competition concerns.¹⁰⁷ Although the judgement of the case did not conclude on this particular element of the defendant's case because it was not central to the complaint of the claimant, it goes to show how the manipulation of market definition is used to attempt to establish or deny market power.

¹⁰³ Ibid

¹⁰⁴ Ibid I-697 to I-698

¹⁰⁵ Thomas Kauper 'The problem of market definition under EC Competition Law' (1996) 20(5) *Fordham Int'l L.J.* 1682, 1712-13

¹⁰⁶ Ibid

¹⁰⁷ See *Hendry, Williams & Sportsmaster Network v. World Professional Billiards & Snooker Association* [2002] UKCLR 5

However, such a strategy of manipulating market definition is not possible in many of the competition cases we have discussed. As we will see, the EU commission has refused to define the market into narrower segments in these cases. It is important to note at the outset that there is, in fact, no specific obligation to define the market clearly in investigations¹⁰⁸; market definition can be left open in situations where resources needed for accurate definition are limited¹⁰⁹ and where in any alternative market definition (narrower or wider) the results of the investigation would be the same.¹¹⁰

3.5.1 Defined Markets

It would be appropriate to start off by considering cases where markets have actually been definitively defined so we can have a comparison with the subsequent sections where the market definitions are left open or wide.

In the EU Commission's investigation into the *Cisco/Tandberg* merger a broad market for video communications services (VCS) was further subdivided into three separate relevant markets of dedicated room VCS, multi-purpose room VCS and executive office VCS.¹¹¹ At the competitive assessment stage the EU Commission analysed the factors within each

¹⁰⁸ See Commission notice on the definition of relevant market for the purposes of Community competition law [1997] OJ C 372 paragraphs 26-27.

¹⁰⁹ Mario Monti 'Market Definition as a cornerstone of EU Competition Policy' (Workshop on Market Definition - Helsinki Fair Centre, Helsinki, 5th October 2001) available at http://europa.eu/rapid/press-release_SPEECH-01-439_en.htm?locale=en accessed on 21st July 2017

¹¹⁰ Organisation for Economic Co-operation and Development (OECD) 'Policy Roundtables: Market Definition' (DAF/COMP(2012)19, 11 October 2012) page 337

¹¹¹ *Cisco/Tandberg* (Case No COMP/M.5669) [2010] at http://ec.europa.eu/competition/mergers/cases/decisions/m5669_2153_2.pdf accessed on 8th February 2015

market and came to separate conclusions under each separate category with regards to impediment to competition and market share.¹¹²

Also, in the *Facebook/Whatsapp* investigation, a specific market for communications applications on smart phones only was defined.¹¹³ At the competitive assessment stage the EU Commission considered the market shares according to this relevant market; also it stuck to considering competitive constraints from companies that were only within the ambit of this particular relevant market.¹¹⁴ Of course, as we have seen before, the high market shares of the merging parties was not enough to raise concerns as their applications were considered as complements as opposed to substitutes; in the previous section it was questioned whether they should have been placed in the same market in the first place. But in this section the purpose is to see whether the EU Commission's analysis sticks within the boundaries of the market it has itself defined. And in *Facebook/Whatsapp* the EU Commission restricted its analysis to the boundaries of the market for communications application on smart phones only.

However, in the *Intel/McAfee* investigation such a restriction of analysis did not take place; the EU Commission definitively defined a market for central processing units (CPUs) based on x86 architecture but in the competitive assessment stage considered other forms of architecture (not based on the x86 architecture) as a potential future competitive restraint on

¹¹² Ibid

¹¹³ *Facebook/Whatsapp* (Case No COMP/M.7217) [2014] available at http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf accessed on 23rd July 2017

¹¹⁴ Ibid

the x86 CPU.¹¹⁵ Hence, this may indicate that the market definition exercise is not as determinative of the outcome as one may think given that the EU Commission appears to be fine with considering the potential effect of products/services that are outside the ambit of the relevant market once that market has already been defined. It has been mentioned with regards to market definition however, that the EU Commission does not strictly follow any specific method of assessing competition cases and may instead take a holistic view of the circumstances of each case.¹¹⁶

One may therefore interpret this as the EU Commission having flexibility in its approach; in other words, just because the EU Commission carries out a market definition exercise, it does not necessarily have to rigorously stick to the ambit of the relevant market and may consider other possible factors. However, in general, we see that where the market is definitively defined, there is a very structured analysis indicating a clear separation between products according to the defined relevant markets. Through this sort of structure, the competitive pressures analysed will be limited according to the relevant market and there will be no consideration of any potential pressures from outside the market. This appears to be the logical and appropriate method of analysing markets once the market is defined.

Consideration of products/services outside the defined relevant market may however indicate that an unreliable picture of competition emerges. We will see how this happens in market definitions that are left open or are too wide below.

¹¹⁵ *Intel/McAfee* (Case No COMP/M.5984) [2011] paragraphs 30 & 69 at http://ec.europa.eu/competition/mergers/cases/decisions/m5984_1922_2.pdf accessed on 10th March 2015

¹¹⁶ 'Panel Discussion on Market Definition in Antitrust' in Barry E Hawk (ed) *International Antitrust Law & Policy: Fordham Competition Law 2012* (Juris Publishing 2013)

3.5.2 Open and Wide markets

The idea of the EU Commission leaving market definitions open or wide may initially appear as though the pro-protection of competition exercise of market definition is done away with. However, it is important that we analyse situations where market definition is left open because, as we will observe, in essence, the analysis of defined markets still takes place regardless. Once again we see the important place that the analysis of competition is to hold in high technology cases.

The *Facebook/Whatsapp* investigation is an example of where market definition for social networking was left open.¹¹⁷ The EU Commission had however discussed prior to this that the evidence suggested that there was a possibility of distinguishing social networking sites based on specific functions (LinkedIn for example, has more of a professional function than Facebook, yet the market investigation indicated that there were significant overlaps) and also stated that there were clear differences between Whatsapp application service and social networking sites.¹¹⁸ However, at the competitive assessment stage the analysis entailed the assumption that Whatsapp and Facebook were competitors in the market for social networking; the competitive constraints they placed on each other was analysed as well.¹¹⁹ Hence, the analysis that had taken place was in practice based on a particular market definition of the market for social networking even though the EU Commission decided to leave the market definition open.

¹¹⁷ *Facebook/Whatsapp* (Case No COMP/M.7217) [2014] paragraph 62 available at http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf accessed on 23rd July 2017

¹¹⁸ Ibid Paras 53-56

¹¹⁹ Ibid Para 146

Furthermore, the EU Commission Investigation into the *Microsoft/Skype* merger is also an example of where the definition was left open for several likely potential markets.¹²⁰ Initially a wide market for consumer communications was defined as separate from the enterprise communications markets.¹²¹ These markets however were not further subdivided into relevant markets in terms of, for example, video calls, voice calls and instant messaging; they were neither subdivided according to platform or operating system.¹²² Those issues of subdivision were left open.¹²³ However, when it came to the competitive assessment stage, the EU Commission appeared to compartmentalize its analysis as if the markets had been further subdivided into narrower relevant markets.¹²⁴ It considered the merging parties' market shares in voice, video and instant messaging communications separately and came to conclusions about significant impediment to competition for each single different category.¹²⁵ Such an analysis was even observed in the *Microsoft/Yahoo! Search Business* investigation.¹²⁶ Having discussed the clear differences between horizontal search, vertical search and specific site search, the EU Commission left the market definition of online internet search open; there were no subdivisions of the market.¹²⁷ However, the competitive analysis entailed a close consideration of market shares of several search engines in the market for horizontal search.¹²⁸ The search engines whose market shares were considered in the analysis (Google, Yahoo!, Microsoft's Bing, Ask, AOL) were all independent horizontal

¹²⁰ *Microsoft/ Skype* (Case No COMP/M.6281) [2011] at http://ec.europa.eu/competition/mergers/cases/decisions/m6281_924_2.pdf accessed on 5th February 2015

¹²¹ Ibid

¹²² Ibid

¹²³ Ibid

¹²⁴ Ibid

¹²⁵ Ibid

¹²⁶ *Microsoft/Yahoo! Search Business* (Case No COMP/M.5727) [2010] paragraph 114 at http://ec.europa.eu/competition/mergers/cases/decisions/M5727_20100218_20310_261202_EN.pdf accessed on 4th February 2015

¹²⁷ Ibid paragraphs 30-32

¹²⁸ Ibid paragraph 114

search engines. Hence the EU Commission appears to have taken into consideration a narrower subdivision of the search market i.e. the market for horizontal search. The EU Commission then went on to conclude that from the perspective of market share alone there was no effect on competition.¹²⁹

It therefore clearly appears that leaving a market definition open or very wide does not usually eliminate analysis of and within¹³⁰ defined markets in favour of any test that does away with the scrutiny of the level of competition in the market.

3.6 Conclusion

The purpose of this section on market definition and substitutability was to show that the underpinning objective of the exercise is to ensure the protection of competition in free high

¹²⁹ Ibid paragraph 119

¹³⁰ See *Symantec / Veritas* (Case No COMP/M.3697)[2005] paragraph 16 available at http://ec.europa.eu/competition/mergers/cases/decisions/m3697_20050315_20310_en.pdf accessed on 24th July 2017- It is important to note however, that this kind of analysis where market definitions are left wide but an analysis of further segmented market shares are considered is not necessarily present in all cases. For instance, in the EU Commission's investigation into the *Symantec/Veritas* merger the further segmentation of the relevant market of backup and archive security was left open; the relevant market was not further subdivided according to the operating systems that the different software particularly worked on. In the competitive assessment stage however, market shares in each operating system were not considered separately; market shares and/or positions were only considered in the backup and archive security software market as a whole. Here it may be of concern that by leaving the market definition wide and the possibility of further segmentation open, the analysis treated the market as one that was wide and therefore would likely reflect an inaccurately smaller amount of market power. However, it should be noted that unlike, for instance, the previous case of *Microsoft/Yahoo! Search Business*, in *Symantec/Veritas* the EU Commission appeared to have comparatively more evidence to suggest that most backup and archive security software was geared to work on various operating systems. This would allow such software vendors to reach wider markets. Furthermore, the evidence available to the EU Commission indicated there was great difficulty in detecting different categories of customer purchasing particular types of backup and archive software. On the other hand in the *Microsoft/Yahoo! Search Business* investigation the EU Commission was confident that there was a definite separation between, for example, vertical and horizontal search (See *Microsoft/Yahoo! Search Business* (Case No COMP/M.5727) [2010] paragraphs 31 and 32 at http://ec.europa.eu/competition/mergers/cases/decisions/M5727_20100218_20310_261202_EN.pdf accessed on 4th February 2015). The EU Commission made statements using definitive language; 'General internet search must be distinguished from vertical internet search, which focuses on specific segments of online content such as for example legal, medical, or travel search engines... Internet search must also be distinguished from site search covering only the content of one particular website.'¹³⁰ Hence, this can justify the different approaches used in the two investigations.

technology markets and that market definition in free high technology markets has at times been presented in a limited fashion.

We saw that market definition is an exercise that has a strong permanent role in competition analysis and therefore would have such a role in a free high technology case as well. Even where the market definition exercise appears to be somewhat undermined, the alternate analysis still involves the consideration of competitive pressure from potential substitutes (whether or not they belong to the same relevant market). This was observed in other forms of analysis such as 'closeness of competition' and where market definitions were left wide or open. Regardless of whether the market definition is definitively defined, left open or kept wide a complete analysis of competition within the possible narrower sub-markets usually tends to take place. This analysis is then therefore taken into consideration as part of the final decision of the EU Commission. One can therefore conclude that in practice, the analysis is carried out as if the market has been defined.

Hence, our first conclusion here is that the analytical framework, which involves market definition, is what is currently applied in all competition cases including free high technology ones. It is an exercise which is a fundamental part of assessing competition in the market and its strong place in competition law analysis possibly indicates dangers ahead for decisions in free high technology cases. We recall once again that competition does not equate to consumer welfare in free high technology cases. But if the market definition exercise is applied, the desired results for consumer welfare may not be achieved as it runs on an underlying idea that competition is good for consumers.

Another important part of this section, which will later on be important in formulating the hypothesis, is what was learnt about the potential limited approach related to market definition analysis in free high technology cases. We saw how in *Facebook/Whatsapp* complements were put in the same relevant market; this was a likely mistake in the sense that they were put in the same relevant market before they were determined to be complements. One may interpret this as presenting a general picture of the market definition being wider than it actually is, making it seem as if the market shares of the companies are low. In addition we saw how several market definitions in free high technology cases were left open, possibly giving the same impression of lower market shares. In the next sections about network effects and other factors involved in analysis of free high technology markets, we will see how competition in free high technology is, in reality, likely to be quite restricted and involves much more concentration in market share. Hence, we must note at this point that the EU Commission's approach to market definition that gives an impression of many effective competitors in the same market (through leaving the definition open or wide) is limited and confusing. Furthermore, when it comes to our hypothesis, it may appear that this limited and confusing method of defining markets may be a deliberate strategy by the Commission, revealing much of the Commission's true thinking. We will expand upon this in the next chapter. But it is imperative to understand at this point that the approach to market definition is the beginning of a series of arguments/analyses by the EU Commission that shows a limited view of the broader range of substantive arguments that are actually present

CHAPTER 4- MARKET POWER

4.1 Introduction

In Chapter 3 we concluded that the exercises used to define the relevant market applied to free high technology investigations necessitates a consideration of the amount of competition in the market. Once we have a defined market, the next step for the EU Commission is to determine whether the companies being investigated possess market power or in the case of mergers, will possess market power to the extent that it will cause a substantial reduction in competition within that framework.

In this chapter we consider the substantive arguments related to market power the EU Commission uses in free high technology cases. These substantive arguments concern network effects and market share, which are dealt with separately in this chapter in two different sections. We evaluate these arguments based on three factors; consistency of the arguments used within a particular case, consistency of arguments amongst different cases and the substantive arguments in the current literature.

We conclude that the EU Commission applies a limited and inconsistent approach to its arguments on network effects and market share. Furthermore and importantly, the research finds that the limited approach is applied to a particular sub-category of cases within the sphere of high technology, that is free high technology. We expand on this later in the chapter.¹ At the end of the chapter, we scrutinise this conclusion in conjunction with our

¹ For example, we will see a conspicuous difference between the approach in cases involving Microsoft, and those involving free high technologies such as Facebook and Skype.

knowledge from Chapter 2 on the economic theory on free high technologies and the tensions with the presumptions of competition law. In doing so we formulate our hypothesis on the true rationale behind the EU Commission's inconsistent and limited approach at the end of the chapter.

The EU Commission currently appears to allow technology characteristics such as ease of switching for consumers, rapid innovation and regular changes in market shares to determine the decisions in their competition investigations.² This has led to many controversial mergers³ to take place despite concern⁴ that characteristics such as network effects allow technology companies to maintain and increase their market power immensely which subsequently makes it easier for them to abuse it.⁵

Furthermore, the decisions are not simply controversial because they are not justified to particular academics and competitors of the merging companies, but also because the EU Commission was seen to treat network effects with more importance in landmark cases involving Microsoft.⁶ Hence, the change in attitude comes as a surprise especially due to the

² See following as examples: *Microsoft/Yahoo! Search Business* (Case No COMP/M.5727) [2010] at http://ec.europa.eu/competition/mergers/cases/decisions/M5727_20100218_20310_261202_EN.pdf accessed on 4th February 2015, *Microsoft/Skype* (Case No COMP/M.6281) [2011] at http://ec.europa.eu/competition/mergers/cases/decisions/m6281_924_2.pdf accessed on 5th February 2015, *Cisco/Tandberg* (Case No COMP/M.5669) [2010] at http://ec.europa.eu/competition/mergers/cases/decisions/m5669_2153_2.pdf accessed on 8th February 2015

³ Ibid

⁴ See for example, H Stakheyeva & F Toksoy 'Merger control in the big data world: to be or not to be revisited?' (2017) 38(6) ECLR 265, 267; Violette Grac-Aubert 'A love and hate relationship? Recent developments in data protection and competition law' (2015) 36(5) E.C.L.R. 224, 226

⁵ See especially Chapters 11 to 13 of M Stucke & A Grunes *Big Data and Competition Policy* (OUP Oxford 2016)- the authors provide a comprehensive explanation of how free high technologies benefit from immense network effects, which allow them to improve their services significantly and in turn makes users stick to them.

⁶ See Case T-201/04 *Microsoft v Commission* [2007] ECR II-3619, EU Commission 'Commission concludes on Microsoft investigation, imposes conduct remedies and a fine' (*European Commission Press Release Database*, 24 March 2004) http://europa.eu/rapid/press-release_IP-04-382_en.htm?locale=en accessed on 20th April 2015, EU Commission 'Antitrust: Commission accepts Microsoft commitments to give users browser

lack of an explanation on the part of the EU Commission.⁷ Such conflicts amongst cases and Commission investigation decisions appear to reflect a lack of consistency in the application of principles by the EU Commission.

Consistency

Whilst this thesis aims to consider consistency of application of principles by the EU Commission as part of its evaluation of approach, it has no intention of carrying out an in depth analysis of the importance and crucial role of consistency. However, the concept itself and its role must still be explained briefly. Consistency is what leads to legal certainty and is therefore a coveted goal to achieve; it is considered as an important and desirable element in any area of law.⁸ Consistency occurs when ‘two rules... produce the same result on the same facts or raise a similar legal issue’.⁹ Legal philosophers have strongly supported the notion that the law must be consistent in the understanding that it should make logical sense holistically, be rational and be orderly.¹⁰ Furthermore, this chapter not only analyses inconsistency amongst cases, but substantially within cases. This is important in assessing the strength of a substantive argument. Where the authorities present conflicting substantive arguments within the same cases, it may indicate the weakness of their substantive arguments and a lack of apparent conviction in those arguments on the part of the authorities.

choice – frequently asked questions’ (*European Commission Press Release Database* 16 December 2009) [http://europa.eu/rapid/press-release MEMO-09-558_en.htm?locale=en](http://europa.eu/rapid/press-release_MEMO-09-558_en.htm?locale=en) accessed on 20th April 2015

⁷ See, for example, Suiyi Zhang ‘How have network effects affected the European Commission’s enforcement of competition law in technology enabled markets?’ (2015) 36(2) *E.C.L.R.* p 82-92

⁸ E Herlin-Karnell & T Konstadinides ‘The Rise and Expressions of Consistency in EU Law : Legal and Strategic Implications for European Integration’(2012-2013) *CYELS* 139, 141

⁹ *Ibid*

¹⁰ See Neil MacCormick *Legal Reasoning and Legal Theory* (Oxford, Clarendon Press, 1978, reprinted paperback edn 1995) xiv, Ronald Dworkin *Taking Rights Seriously* (Harvard University Press, 1978) and Stephen Guest *Ronald Dworkin* (Stanford, Stanford University Press, 1991) 39–40)

Piecing together the limitations and inconsistencies of the EU Commission's approach, objective of competition law and the economic theory behind free high technology

The inconsistencies and limitations occur within a wider context i.e. the objectives and presumptions in competition law that we saw in Chapter 2. By piecing together the wider context and the EU Commission's approach and looking at them closely side by side, one can hypothesize on the reason behind the EU Commission's seemingly limited approach to free high technology investigations.

We conclude in our hypothesis that the EU Commission ends up applying an inconsistent and limited approach as a strategic way to justify the increase in size of the incumbent market players under the particular analytical framework it is required to follow. The objective of competition law is consumer welfare. Also, we saw in Chapter 2 how larger free high technology companies can maximise consumer welfare. The analytical framework that the EU Commission must use however requires there to be sufficient competition in the market to allow a merger or unilateral action of a company to take place which is assumed to lead to consumer welfare. Therein lies the conflict that the EU Commission resolves by strategically arguing that there is sufficient competition in the market (despite there being extremely high market shares and network effects) to allow the mergers and unilateral actions to take place.

4.1.1 Article 102 and the Merger Regulations

One issue to note with regards to methodology is that Chapter 3 will carry out a comparison amongst cases that involve both mergers and unilateral action. The source of rules for

competition cases on mergers is specific guidelines/regulations issued by the European Union¹¹ whilst Article 102 TFEU is the central provision governing unilateral actions.¹² Even though the sources of law are different, the wider tests/forms of analyses used in the different types of cases, as we will see, utilize fundamentally similar elements.

Both tests require an exercise to determine dominance and the ability to prevent effective competition; these in turn are absolutely necessary parts of both tests.¹³ In essence the assessment of non-horizontal and horizontal mergers very often entails an analysis of the ability of the merged entity to act in a way in the future that would be tantamount to an abuse under Article 102; the substantive analysis is therefore similar.¹⁴ There is however, a

¹¹ See Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings [2004] OJ L 24/1, Council Regulation (EC) on Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (2004/C 31/03) [2004] OJ C 31/5 and Council Regulation (EC) on Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings (2008/C 265/07) [2008] OJ C 265/07

¹² See Article 102 Treaty on the Functioning of the European Union and E Elhauge & D Geradin *Global Competition Law and Economics* (Second Edition, Hart Publishing 2011) p 270

¹³ The following provisions and guidance in merger related regulations show the importance of dominance. Article 2(2) of Council Regulation (EC) No 139/2004 states that ‘A concentration which would significantly impede effective competition, in the common market or in a substantial part of it, in particular as a result of the creation or strengthening of a dominant position, shall be declared incompatible with the common market.’ Note the emphasis placed on requirement of a ‘dominant position’. Paragraph 2 of Council Regulation 2004/C 31/03 considers the strengthening of a dominant position as a primary form of competitive harm, whilst paragraph 4 states the expectation that incompatibility of a concentration with the common market is very likely to be based on the finding of an increase in the dominant position of the merged company.

In terms of Article 102, the test is that an abuse of dominance is to be declared incompatible with the common market. A lot of abuse analysis under Article 102 comes in the form of considering foreclosure, which is also discussed extensively under non-horizontal merger guidelines. Also as seen in para 38 of Case 85/76 *Hoffmann-La Roche & C. AG v Commission of the European Communities* [1979] ECR 1979 -00461, dominance refers to a position of strength that allows the relevant undertaking to prevent effective competition on the relevant market independently of its competitors, customers and ultimately consumers.

¹⁴ Renato Nazzini, *The Foundations of European Union Competition Law: the Objectives and Principles of Article 102* (Oxford University Press 2009) 333-334. See also Carles Esteva Mosso ‘The Contribution of Merger Control to the Definition of Harm to Competition’ (European Commission Speech, Brussels GCLC Conference 1st February 2016) <http://ec.europa.eu/competition/speeches/text/sp2016_03_en.pdf> accessed 3 July 2017: ‘In sum, personally I would argue that, to a large extent, substantially the same test and standard of intervention apply in the context of antitrust and mergers...As such, this convergence should not be particularly surprising. Merger control and antitrust enforcement address different forms of negative effects on competition, but they ultimately serve the same purpose: protecting competition and consumer welfare. Hence it is only natural that both instruments are based on many common concepts and methodological tools and that this convergence tends to increase over time.’

difference in the standard of proof; unlike investigations of unilateral action under Article 102, under merger regulations the authorities must predict the competitive conditions and effects on effective competition in the future i.e. once the merged entity is in operation.¹⁵ Under Article 102 however, an assessment of the current effect of conduct of the company with a dominant position is carried out. In other words, there is an additional burden of showing whether that future unilateral act itself is likely to occur in the first place before analysing whether it could lead to a significant reduction in competition. But once the unilateral action is supposed in the counterfactual, then a similar analysis of market definition, market share and network effects must take place as they do in Article 102 cases.

Hence any analysis that is assessed under either provision is capable of casting light on the other; therefore the way a dominant position is assessed by the EU Commission or the CJEU in a merger case is certainly capable of comparison with and explaining the way it is assessed in an Article 102 case and vice versa.¹⁶

In the next section we justify a further methodology in our analysis that will be seen later on in this chapter in terms of the comparison of types of cases that involve slightly different facts.

¹⁵ Bo Vesterdorf 'Standard of proof in merger cases: Reflections in the light of recent case law of the Community Courts' (2005) 1(1) ECJ 3, 15

¹⁶ Renato Nazzini, *The Foundations of European Union Competition Law: the Objectives and Principles of Article 102* (Oxford University Press 2009) 333-334

4.1.2 Important note on types of cases considered in Chapter 4

First thing to note here is that we will be looking into a wide variety of cases, not just free high technology ones. This will enable us to draw comparisons and therefore put the free high technology cases into context and help us understand the EU Commission's particular approach to them.

The analyses and evaluations in this chapter will entail comparisons between categories of cases that may initially appear to be very different in terms of their facts and hence incomparable. For example, we will be comparing mergers in the high technology market such as *Microsoft/Skype* and *Facebook/Whatsapp* with unilateral action cases such as *Microsoft vs Commission*.¹⁷ There will then be comparisons with cases regarding tying as well. For example, we will also look into the cases of Microsoft tying media players and browsers and drawing possible parallels or lack thereof with the free high technology mergers.

It is important to keep in mind that these are not inappropriate comparisons involving random categories of cases. In fact, there are several issues that bind them together and therefore make them justifiably comparable. They are all competition law cases that have been determined on the basis of arguments related to market power and network effects. There are no principles or reason that, for example, the Microsoft cases are relevant to different rules simply because they are interoperability/tying cases and therefore cannot be compared to high technology merger cases. All these cases' results hinge upon whether the party/parties

¹⁷ Case T-201/04 *Microsoft v Commission* [2007] ECR II-3619

has/have market power through network effects. Due to this common element, one should be able to draw a necessary comparison between these cases to assess consistency.

4.2 Consistency and Evaluation of substantive arguments surrounding network effects

This section assesses the EU Commission's view of their substantive analysis of network effects and concludes that network effects, contrary to the EU Commission's opinion, in the free high technology market have a strong presence and is harmful to competition only.

Hence the EU Commission's view on network effects is limited. Network effects in the free high technology sector are considered in both Article 102 TFEU and merger investigations as part of the assessment of potential harm to competition. According to the 'Glossary of EU Competition Policy' by the European Commission itself, network effects refer to effects that '...arise when a product is more valuable to a user, the more users adopt the same product or compatible ones.'¹⁸ Network effects can be subdivided into direct and indirect network effects.¹⁹ Direct effects are those that occur when the value of a product/service to consumers increase as others use the product/service²⁰; indirect effects occur when others and the company providing the product/service are incentivised to produce complements to the primary product/service.²¹ An example of a direct effect would be when consumers decide to use a social network, they most likely will be doing so as they have other friends on the

¹⁸ See the European Commission's 'Glossary of EU Competition Policy' (page 33) available at http://ec.europa.eu/competition/publications/glossary_en.pdf

¹⁹ M. Rato and N.Petit, 'Abuse of Dominance in Technology-Enabled Markets: Established Standards Reconsidered?' (2013) 9(1) ECJ 1, 4

²⁰ M. Kaatz and C. Shapiro, 'Network Externalities, Competition and Compatibility' [1985] 75 Am.Econ.Rev p 424

²¹ M. Lemley & D. McGowan 'Legal Implications of Network Economic Effects' [1998] 86 Cal. L. Rev 479,483

network they would want to communicate with; without this, the social network service would be of very little use to them.²² In this way, network effects are purported to lead to the growth of a company's customer base and help prevent their customers from switching to any other competitors' product or service²³ regardless of whether or not the company's product/service is inferior.²⁴ In other words network effects can be seen to be harmful to competition.

As we will see, the existence of network effects in free high technology markets may prevent competition in the market place; it makes it less substitutable with alternative technologies.²⁵ However, our knowledge from Chapter 2 in general enables us to understand that the existence of network effects may not be bad for consumers when it comes to free high technologies; network effects enhance the ability of firms to increase market share and that is good for consumers. Hence, one can already see how the protection of competition and the protection of consumers come into conflict. Therefore it is absolutely imperative that an assessment of the EU Commission's arguments with regards to network effects is made as it directly highlights the very tension within the presumption that competition is good for consumers.

²² See Matt Buchanan, 'Network Effects and Global Domination: The Facebook Strategy' (*Wired*, 17 May 2012) < <http://www.wired.com/2012/05/network-effects-and-global-domination-the-facebook-strategy/>> accessed 29 February 2016- Mark Zuckerberg, owner of Facebook, indicated that part of Facebook's success is attributable to network effects; "I think that network effects shouldn't be underestimated with what we do as well..."

²³ Aysem Diker Vanberg 'From Archie to Google- Search engine providers and emergent challenges in relation to EU Competition law' [2012] 3 EJLT 1, 6

²⁴ See Paul A. David 'Clio and the Economics of QWERTY' (1985) 75(2) *Am Econ Rev* 332, 336. It was argued that the traditional 'QWERTY' keyboard arrangement was dominant despite being inferior to other keyboard arrangements.

²⁵ Consumers become increasingly drawn to products that become more valuable as more people use them; this prevents other companies from attracting those consumers even if they have a better product.

In both the academic and general literature there has been criticism that the network effect argument itself is being overlooked in investigations of free high technology markets.²⁶ The EU Commission acknowledges a weak presence of network effects; it appears to be of the opinion that network effects can be overcome easily in this sector. This will be seen in cases such as *Facebook/Whatsapp*²⁷ and *Microsoft/Skype*.²⁸ This chapter concludes that the EU Commission's substantive arguments with regards to network effects is limited and that network effects in the free high technology sector are in fact very potent; they can lead to consumers being locked-in to using one company's services. In this sense the EU Commission's argument is limited and confusing.

Compared to the other substantive arguments, a large section of the thesis has been dedicated to network effects as it is the main characteristic that is present on a more extensive and potent scale in free high technology markets than any other market. The internet is a massive communications infrastructure²⁹ and is a 'network of networks, all inter-networking with each other';³⁰ it involves networks that do not pass through one central point but several unlike those of for example in telephone networks.³¹ This strongly indicates the potency of network effects experienced in high technology industries operating online. The success of

²⁶ See, for example, Suiyi Zhang 'How have network effects affected the European Commission's enforcement of competition law in technology enabled markets?' (2015) 36(2) ECLR. 82-92

²⁷ *Facebook/Whatsapp* (Case No COMP/M.7217) [2014] available at http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf accessed on 23rd July 2017

²⁸ *Microsoft/ Skype* (Case No COMP/M.6281) [2011] at http://ec.europa.eu/competition/mergers/cases/decisions/m6281_924_2.pdf accessed on 5th February 2015

²⁹ C Reed *Internet Law: Text and Materials; Second Edition* (Cambridge University Press 2004) 10

³⁰ L Davies 'The Internet and the Elephant' (1996) *International Business Lawyer* 151

³¹ A Guadamuz *Networks, Complexity and Internet Regulation; Scale Free Law* (Edward Elgar Publishing 2011) page 72

companies that are social networks, search engines and blogs all depend connecting more and more users together; each user becomes a central point in connecting more users.³²

Both direct and indirect network effects can take the shape of more specific aspects namely barriers to entry, switching costs and lock-in.³³ As we will see, barriers to entry are faced by competitors whilst lock-in and switching costs are faced by consumers, but indirectly have an effect on competitors. We discuss each type of network separately below and see how they have been treated by the case law. However, it must also be understood that they are very closely related in the sense that the presence of one will usually indicate the presence of another. For example, in the case of a free communication application, if switching costs are high for consumers, that means more consumers are likely to stick to the application. In turn it means more consumers are locked in due to the more people staying on it. Finally, it also means barriers to entry in the communication application market are high because it would be hard for a new entrant to take away customers. Hence, where, for example, the EU Commission considers that lock-in is very high, it is also indicating that it believes barriers to entry are high. However, we still discuss them separately as the authorities may put emphasis on a particular type of network effect in their arguments. These are discussed further below in more detail.

³² Ibid

³³ T. Hoehn, S. Rab & G. Sagers "Breaking up is hard to do": national merger remedies in the information and communication industries' (2009) 30(5) ELCR 255, 257

4.2.1 Barriers to entry

Entry barriers are factors that, to a significant degree, prevent companies from entering specific markets; the factors can range from the financial cost of entry to customer brand loyalty to competing companies.³⁴ However, within the context of this particular section we discuss the specific barriers to entry that are directly caused by network effects. As we have already seen, network effects cause consumers to stay on the consumer's network because others are using it; this makes it difficult for any consumer to use another company's services and therefore presents a barrier to access to those consumers and therefore a barrier to entry for competitors. Hence we can see and will see further how the barriers to entry argument revolve around the issue of competitors' ability to enter the market and compete.

We will see that the barriers to entry are approached differently according to the medium of operation of the companies. Two distinct categories seem to emerge; markets involving free high technology and markets involving interoperability between software or between software and hardware. Barriers are considered low (and therefore less harmful to competition) in the former category whilst they are considered high in the latter. However, what links all cases across the two categories is the fact that the companies under investigation all benefit from network effects. However, the network effects only appear to cause high barriers to entry in the second category (interoperability cases) and not in the first. As we will see, this reflects a generally inconsistent approach to barrier to entry on the part of the EU Commission.

³⁴ See Glossary of EU Competition Policy (page 17) available at http://ec.europa.eu/competition/publications/glossary_en.pdf

4.2.1.1 Low Barriers to entry in free high technology markets where network effects are present- an inconsistent approach

In certain cases concerning high technology services the presence of low barriers to entry is consistently a recurring theme. Hence, harm to competition is considered low. For instance, in the European Commission's *Google/DoubleClick*³⁵ merger investigation it was considered that Doubleclick had many competitors; some of these competitors were to include foreign online ad serving companies that were not even currently active in the geographic market (but had the intention of being so) since there were low barriers for such technology, allowing a transcending of borders of the host country.³⁶ The consideration of competitive pressure potentially from companies that are not even present on the market reflects the idea that the EU Commission strongly opines that barriers to entry are low and shows that they would approach a free high technology service as always under competitive pressure. In the *Microsoft/Skype* merger decision, despite the EU Commission's allusion to strong consumer branding and the presence of network effects as potential high barriers to entry, it decided to support the notion that barriers were low; monetary capital costs were considered relatively low, downloads of alternative services to Skype were free and consumers usually multi-home.³⁷

³⁵ *Google/DoubleClick* (Case No COMP/M.4731) [2008] available at http://ec.europa.eu/competition/mergers/cases/decisions/m4731_20080311_20682_en.pdf accessed on 24th July 2017- Although, in this particular case Google is not a free service as this case concerns selling advertising space, it displays the EU Commission's general interpretation of the competitive conditions on the internet which would also affect its interpretation of the competitive conditions related free high technologies that operate online.

³⁶ Ibid

³⁷ *Microsoft/ Skype* (Case No COMP/M.6281) [2011] Paragraphs 85 to 95 at http://ec.europa.eu/competition/mergers/cases/decisions/m6281_924_2.pdf accessed on 5th February 2015

The EU Commission also, for example, uses the fact that large players like Facebook and Google introduced messaging services as a testament to the ease of entry³⁸ (we now also know that Facebook has introduced video communications services). Along with this, the entry of Viber as a communications application was shown as evidence of how a relatively small player can easily enter the market and gain a significant number of users from scratch.³⁹ Similar arguments were made in *Facebook/Whatsapp* to present a competitive landscape. It stated that previously Blackberry had its own messaging service that had the most market share, but this changed as more innovative smartphones came out and therefore alternative messaging applications became more dominant. Again, this was seen as evidence of low barriers to entry.

It once again appears that low barriers to entry along with other factors are given more importance than other factors such as network effects. However, such arguments from the EU Commission are well justified in cases concerning online digital markets especially when seen in juxtaposition with other cases concerning other types of technology. For instance, in the *Hutchison 3G Austria/Orange Austria*⁴⁰ merger decision, the EU Commission was definitive in its statement that barriers to entry were high for both mobile network operators (MNOs) and mobile virtual network operators (MVNOs). This was due to the necessity of bidding for limited spectrum, the necessity of negotiating network interconnection agreements and fees with others and high prices for wholesale access for MNVOs.⁴¹ In other words any new company wanting to the enter the market as a MNO would have the extra

³⁸ Ibid Paragraph 69-72

³⁹ Ibid Paragraph 90

⁴⁰ *Hutchison 3G Austria/Orange Austria* (Case No COMP/M.6497)[2012] available at http://ec.europa.eu/competition/mergers/cases/decisions/m6497_20121212_20600_3210969_EN.pdf accessed on 16th September 2017

⁴¹ *Hutchison 3G Austria/Orange Austria* (Case No COMP/M.6497)[2012] available at http://ec.europa.eu/competition/mergers/cases/decisions/m6497_20121212_20600_3210969_EN.pdf accessed on 16th September 2017 Paraph 6.7

burden of attempting to attain spectrum that they may not even receive in the first place due to its limited nature and negotiate mandatory agreements with other MNOS and MNVOs without which their customers would not be able to contact anyone using a different mobile network. These are the barriers to entry to be faced in mobile network markets. Such barriers as limited spectrum are not present in online digital market cases.

In the context of the previous cases discussed (*Google/DoubleClick* and *Microsoft/Skype*) neither Google nor Microsoft, for instance, are required to bid for limited internet space or require any vital interconnections with other companies to be in operation. They are able to launch independent web services without the need for specific permission and are able to operate unencumbered by other parties. It may be argued that Skype, for example, faces barriers as it would require an interconnection agreement with another online video call provider (eg Facetime) for users of different software to communicate with each other. However, it is relatively straightforward for a user to download the free Skype application. Whereas a mobile network user would have to pay for a new chip to be inserted into his/her mobile phone if he/she wanted to speak to someone using another network in the absence of interconnection agreements amongst the different MNOs and MNVOs.

It therefore may be controversial to even entertain the idea that barriers to entry in the online context are present to a considerable extent. Hence, considering this comparison, the notion of low barriers to entry in online digital markets appears justified; the obstacles in the free high technology cases seem relatively lower. Therefore, the EU Commission may be right in its opinion and the low barriers characteristic means that competition is less likely to be harmed.

There are, however, particular instances where we observe that the EU Commission itself has inconsistent views on barriers to entry within the same cases. For instance, going back to the *Google/DoubleClick* merger, the EU Commission seems to have subtly taken a different view with regards to the issue of barriers to entry. In discussing whether the merger is a horizontal one and competition in the market could be reduced post-merger, the EU Commission alluded to the fact that prior to the EU Commission's decision, Doubleclick was experimenting with an ad network product which did not turn out to be a financial success in Europe and success was limited in the United States.⁴² A Doubleclick ad network could technically be a competitor against Google's ad network. Despite the possibility of such a scenario, the evidence brought before the EU Commission indicated otherwise and the EU Commission found that, at least in the short term Doubleclick could not compete effectively in both markets. Therefore, competition would not be affected by removing Doubleclick from the market as a competitor against Google in Europe.⁴³ Removal of a competitor would have to have 'significantly impeded effective competition'⁴⁴ in order for it to be prevented under the merger regulations.

This conclusion offers an important insight towards our comprehension of the actual validity of the entry barriers argument. Firstly, although barriers to entry are on a cursory glance low, there may be qualifying requirements for market entry, namely that the competitors need to actually be effective in order for real competition to be maintained. This has an important implication as although market entry may be feasible, the barriers can only be considered low where the concerned competitors possess the necessary degree of effectiveness and

⁴² *Google/DoubleClick* (Case No COMP/M.4731) [2008] paragraph 224 available at http://ec.europa.eu/competition/mergers/cases/decisions/m4731_20080311_20682_en.pdf accessed on 16 September 2017

⁴³ *Ibid*

⁴⁴ *Ibid*

credentials⁴⁵ to compete in the market. This is in contrast to the narrative that barriers to entry are low as seen previously in the *Google/DoubleClick* decision; as seen, the EU Commission took into consideration the potential of foreign companies to enter the market without discussing whether they would be effective/successful/financially viable competitors in the market.

Furthermore, in terms of the *Microsoft/Skype* decision the EU Commission may have overlooked certain factors when justifying the notion of low barriers in the market. We saw above that it used Viber, Facebook and Google messaging services as evidence of low barriers. However, this may be considered inconsistent with the EU Commission's analysing of these factors within the narrowest possible market, that is consumer communications services on windows based personal computers.⁴⁶ Firstly, Viber at the time was only available on mobile phones.⁴⁷ How therefore Viber was of significant competitive relevance on the PC market, is hard to understand. The EU Commission's comments on foreclosure may provide some insight however. It stated that foreclosure of a lot of alternative communication applications was unlikely as some of them had more prominent positions on different platforms other than PCs like smartphones.⁴⁸ In other words, the survival of these other applications is not hampered should Skype be tied to the Microsoft PC platform.

⁴⁵ The exact necessary degree of effectiveness is not something that can be ascertained under the case *Google/DoubleClick* case. However, given the EU Commission's comments that have been analysed, competitors cannot have a failed operation in the market and need to therefore be able to sustain itself in the market.

⁴⁶ *Microsoft/ Skype* (Case No COMP/M.6281) [2011] Paragraph 102 at http://ec.europa.eu/competition/mergers/cases/decisions/m6281_924_2.pdf accessed on 5th February 2015

⁴⁷ It was not till 2013 that Viber launched a PC version. See Ellis Hamburger 'Viber expands to PC and Mac as competitors preach "mobile only"' (*The Verge*, 7 May 2013) available at <https://www.theverge.com/2013/5/7/4305350/viber-pc-and-mac-apps-200-million-users> accessed on 22nd August 2017

⁴⁸ *Microsoft/ Skype* (Case No COMP/M.6281) [2011] Paragraph 163 at http://ec.europa.eu/competition/mergers/cases/decisions/m6281_924_2.pdf accessed on 5th February 2015

Whilst this is understandable, it appears to ignore the potential reduction in competition in the concerned relevant market of communications applications on windows based PCs. The EU Commission did seem to suggest however that the PC market was becoming less important as more and more consumers switched to usage of smartphones and tablets. This suggestion may ignore significant competitive concerns though. It is obvious that windows based PCs are still widely used both in businesses and homes; there is no sign of them being replaced by smartphones and tablets anytime soon or in the distant future. Hence, there is in fact a massive market where Microsoft's windows based PCs are dominant and users face the prospect of mainly using Skype as a tied service/product; this would no doubt potentially lead to a reduction in competition on the PC market.⁴⁹ Hence, on the particular PC market barriers can still be high and the fact that there are other applications with better presence on other platforms does not change that.

Secondly, Google and Facebook had admittedly very low shares in video communications compared to Skype.⁵⁰ Hence, with Skype's already dominant position in video communications and Microsoft's established dominance in PC operating systems, the integration of Skype could strongly entrench Skype's market position and reduce the competitive significance of Facebook and Google. The barrier to entry becomes raised due to a dominant operating system tying another dominant application. Hence the EU Commission presents only a partial picture which is inconsistent with the dominant position of the merging parties.

⁴⁹ Ibid paragraph 155- The EU Commission states that Microsoft would not have any incentive to tie Skype and Microsoft. However, given the EU Commission's history with Microsoft in terms of previous cases such as the tying of internet explorer and windows media player, it is difficult to see why the EU Commission overlooked the serious possibility of Skype being tied. Also, we now know that Skype is in fact tied to Microsoft products.

⁵⁰ *Microsoft/ Skype* (Case No COMP/M.6281) [2011] Paragraphs 125-126 at http://ec.europa.eu/competition/mergers/cases/decisions/m6281_924_2.pdf accessed on 5th February 2015

The EU Commission's conflicting views on barriers to entry as seen above possibly indicate a flaw in its legal justifications and reasoning in determining the potential competitiveness of a market in the context of online entities. If barriers to entry are determined to be low without considering the effectiveness of competitors who pass through these low barriers, we would end up with an incomplete analysis overall. The incompleteness of the analysis will become even more pronounced as we start comparing cases later on in the thesis. For example, the oversights we observed above in the *Microsoft/Skype* investigation will become even more concerning when we compare it with the EU Commission's starkly different treatment of *Microsoft*⁵¹ in the browser and media player cases.

In summary, at the beginning we saw that when one considers alternative technology cases like telecommunications where there are literally lots of barriers from attaining spectrum bandwidth to negotiating appropriate agreements, barriers in online technology markets do appear low. However, the EU Commission casts doubt on its own reasoning by then appearing to insinuate that low barriers do not matter if the competitor is not effective. The other way to interpret this is that barriers cannot simply be assumed to be low because the entity operates in the online world. If the potential competitor is ineffective, it must indicate other forms of barriers that are preventing it from effectively competing that must also be taken into account. As we discuss network effects further, we will see how there are many more factors that in reality make barriers to entry higher. Therefore, the EU Commission's subtly inconsistent views reveal potential incomplete analysis here that must be taken note of.

⁵¹ *Microsoft* (Case COMP/C-3/37.792)[2004] at http://ec.europa.eu/competition/antitrust/cases/dec_docs/37792/37792_4177_1.pdf accessed on 4th February 2015 Case T-201/04 *Microsoft v Commission* [2007] ECR II-3619

In the next section we look at other forms of high technology where barriers of entry were considered high. We will see how against the background of these next cases, it is also reasonable to view that barriers to entry are actually high in the online world. It therefore casts further doubt on the EU Commission's opinion on barriers in high technology.

4.2.1.2 High barriers to entry in interoperability cases where network effects are also present - a consistent approach by the EU Commission

There have been cases involving other forms of high technology where the network effects leading to potential high barriers have led to cautionary decisions by the EU Commission. These cases are worth exploring and comparing with the high technology cases where we just observed that entry barriers were considered low.

It would be appropriate to start with one of the earlier technology cases considered by the EU Commission where a significant barrier to entry for software and hardware producers was removed.⁵² In 1984, the EU Commission having investigated IBM (at the time a company with a very large share of the personal computer market; hence other hardware and software producers would most likely need to produce IBM compatible products to survive) for its bundling of IBM hardware with its own central processing unit, negotiated an undertaking on the part of IBM to provide interface information to competing software and hardware producers enabling compatibility, and hence allowing them to compete in the market; this

⁵² *IBM Personal Computer* (Case IV/30.849)[1984] available at <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31984D0233&from=en> accessed on 16 September 2017

was of course to be done in exchange for a reasonable and non-discriminatory (RAND) charge to be paid to IBM.⁵³

In fact, the requirement of the release of interoperability information by companies with large market shares is generally well established in the EU Commission's investigations history. For instance, network effects in the form of high barriers were also a determining factor in the decision of the EU Commission's investigations into Microsoft's proposed merger with Liberty Media in 2000.⁵⁴ Microsoft would be integrating cable television by Liberty Media into set-top boxes with their software. The EU Commission was specifically concerned with the notion that such a move, especially given that this was the first product of its kind, would lead to application developers to only develop add-ons for this particular set top box product.⁵⁵ The more applications available to it, the more consumers would be attracted to it as the value of the product would go up because more applications would be written for it.⁵⁶ Also the more applications for a particular platform, the more the chance of the applications being tested on that platform the more valuable and therefore attractive the platform becomes.⁵⁷ The EU Commission was of the opinion that there was a risk that Microsoft would not allow interoperability with its platform and this would lead to it abusing its network effects; the EU Commission was inclined to block the merger.⁵⁸

⁵³ Ibid

⁵⁴ European Commission 'Commission opens full investigation into the Microsoft/Liberty Media/Telewest concentration' 22nd March 2000 <http://europa.eu/rapid/press-release_IP-00-287_en.htm> accessed on 15th April 2015.

⁵⁵ Ibid

⁵⁶ B Bishop & C Caffara 'Merger control in "new markets"' (2001) 22(1) ECLR 31

⁵⁷ Ibid

⁵⁸ Ibid

Also in 2002 a venture between Siemens and Drägerwerk caused concern that Drägerwerk would potentially be obligated to and therefore solely have the ability to enable their equipment to interoperate with Siemens monitors.⁵⁹ In response to these concerns of creating barriers for Drägerwerk's competitors to produce Siemens monitor compatible equipment, Siemens agreed to release interoperability information.⁶⁰ Hence, this is a case which does not involve the various barriers to entry faced by MNOs and MVNOs, but is considered by the EU Commission to involve strong barriers by virtue of network effects.

All the companies we have considered in the previous section where barriers to entry were considered low (Skype, Microsoft and Google), also entail strong network effects. In other words, *Google/DoubleClick* and *Microsoft/Skype* are potentially inconsistent with the IBM, Liberty and Siemens cases/investigations. All of them entailed strong network effects, but they were distinct in the sense that the EU Commission considered they presented high barriers to entry due to the network effects. The IBM, Siemens and Liberty cases are all over 10 years old and it may be questioned whether the same arguments apply today.⁶¹ However, as we will see in the next paragraph, there have been more recent cases where this argument of high barriers to entry in interoperability cases plays a very important role.

⁵⁹ *Siemens/ Drägerwerk* (Case COMP/M.2861) [2003] available at http://ec.europa.eu/competition/mergers/cases/decisions/m2861_20030430_600_en.pdf accessed on 16 September 2017

⁶⁰ Ibid

⁶¹ See for example, Cases T-125/97 & T-127/97 *Coca-Cola v Commission* [2000] ECR II-01733, paragraph 85- The European Court of Justice said that no national court is bound by the previous Commission Decisions in terms of the EU Commission's decision on whether or not a company possesses a dominant position. Hence it is still technically possible for courts and possibly the EU Commission itself to, in the future, assess whether the arguments surrounding barriers to entry have changed; this could in turn change the decision on dominance. Hence, just because IBM and Siemens emphasized the importance of barriers to entry arising from network effects, does not mean that future decisions have to rely on this if, for instance, in the future the market circumstances change in terms of competition.

In the EU Commission's 2010 decision in *Cisco/Tandberg*⁶², the occurrence of barriers to entry was considered in the context of interoperability from two different perspectives; namely indirect and direct network effects (although these terms were not used directly). On the one hand, it was considered an acceptable argument that Cisco was likely to allow interoperability between its products and complementary products of competitors because this would allow it to take advantage of network effects, making it a more attractive product (this is an indirect network effect as other companies would be able to produce more complements for Cisco's software, making Cisco more popular and attractive to users).⁶³ However, the EU Commission considered that it was most likely that following its horizontal merger with Tandberg (leading to a reduction in competitors), Cisco would block interoperability relying on the confidence that its combined larger network would enable it to tie its own complementary products due to direct network effects (this is a direct network effect as the company can rely on the size of its own network to tie consumers into using their complements).⁶⁴ The EU Commission did approve the merger; however, having recognized the risk of the creation of high barriers to entry, approved of it on condition that the merging parties release interoperability information as it did before the merger.⁶⁵

Furthermore in 2011, the EU Commission's *Intel/McAfee* merger decision shows how the merging of different networks can lead to significant entry barriers that can subsequently lead

⁶² *Cisco/Tandberg* (Case No COMP/M.5669) [2010] at http://ec.europa.eu/competition/mergers/cases/decisions/m5669_2153_2.pdf accessed on 8th February 2015

⁶³ *Cisco/Tandberg* (Case No COMP/M.5669) [2010] at http://ec.europa.eu/competition/mergers/cases/decisions/m5669_2153_2.pdf accessed on 8th February 2015

⁶⁴ T Hoehn and A Lewis 'Interoperability remedies, FRAND licensing and innovation: a review of recent case law' (2013) 34(2) E.C.L.R. 101, 102

⁶⁵ *Ibid*

to a potential significant impediment of effective competition.⁶⁶ Both Intel and McAfee possessed large market shares; Intel in the market for chips and central processing units (CPUs); McAfee in the market for end-point security.⁶⁷ Intel was able to benefit from network effects by having prominent customers like Microsoft use their CPUs and produce software based around Intel specifications.⁶⁸ In other words, the value to the customer of having a device using an Intel CPU is multiplied due to complementary products being produced for it.

Post-merger the EU Commission believed that there would be a strong possibility that McAfee could use Intel's leverage in the CPU market by getting Intel to pre-install the security software in all its CPUs, which could potentially eliminate competition from other security software developers let alone raise entry barriers significantly.⁶⁹ As a result, the merger was allowed but with certain conditions on the part of the merging parties; Intel had to commit to providing the same full interoperability information to McAfee's rivals just as it would do to McAfee and to ensuring that it would not hamper the use of McAfee on competitors' CPUs.⁷⁰

Finally, in the 2012 investigation of the acquisition of Motorola Mobility by Google, Google had to pledge to the EU Commission that all the newly acquired patents from Motorola would continue to be licensed to other companies including its competitors; the licensed

⁶⁶ *Intel/McAfee* (Case No COMP/M.5984) [2011] at http://ec.europa.eu/competition/mergers/cases/decisions/m5984_1922_2.pdf accessed on 10th March 2015

⁶⁷ *Ibid*

⁶⁸ *Ibid*

⁶⁹ *Ibid*

⁷⁰ European Newsletter 'Alumnia reflects on 20 years of the Merger Regulation' Euro. News. 2011, 76/77(Apr), 1-3

patents are what would enable, for instance, mobile application creators to still be able to produce applications for Motorola mobile phones.⁷¹

These three recent cases demonstrate that the presence of high barriers to entry arising from network effects is still a very valid determinant in competition investigations where interoperability is a fundamental issue. It forces one to question the validity of the subordination of the barriers to entry arguments in cases such as *Microsoft/Skype* and *Facebook/Whatsapp* where strong network effects are also present. We therefore see an inconsistency between the treatment of interoperability cases and free high technology cases for which there is no convincing explanation by the EU Commission. As we have seen and will see further when discussing the other forms of network effects, free high technology companies with the largest market shares actually do present high barriers to entry and by that logic should be treated with the same level of strictness as interoperability. For example, perhaps Microsoft should have been required to commit to not pre-install Skype on to its platform and Facebook should have been required to not exchange data with Whatsapp. As mentioned previously and will be seen, data gives companies increased competitive advantages, and such a commitment on the part of Facebook would at least ensure to some extent that competition will not be reduced in the market.

So far, we have carried out a critical assessment of the EU Commission's approach to the 'barriers to entry' argument by mainly looking at inconsistency not only between different cases, but also by looking at inconsistency of rationale within the same cases. We note that

⁷¹ *Google / Motorola Mobility* (Case COMP/M.6381) [2011] available at http://ec.europa.eu/competition/mergers/cases/decisions/m6381_20120213_20310_2277480_EN.pdf accessed on 16 September 2017

the EU Commission has justified its approach in the free high technology cases by stating that the cycles of innovations in the industries allows smaller companies to take away market share from incumbents and therefore barriers can be overcome. Another way to put this is to simply say that therefore barriers are low. In the next section we consider this argument in the context of the literature that discusses the ability of innovativeness to lower barriers to entry.

4.2.1.3 Assessing the merits of the EU Commission's approach from the perspective of innovation

Here, it is important to note that we speak of innovation as opposed to 'disruptive innovation'. As we know from section 2.2.6, disruptive innovation virtually replaces a current technology and therefore the current relevant market. Innovation on the other hand, in this section, refers to improvements on the current technology in the current relevant market.

Innovation and good quality service by non-dominant entities in the free high technology sector have been known to be a positive for competitors as they lower the barriers to entry.⁷²

Members of the industry compete on merit and a highly innovative service/product by a company can steal away customers from a company with a relatively dominant position.⁷³ It

⁷² See A Gawer & M Cusumano 'How companies become platform leaders' (2008) 49 Sloan Manage Rev 28- In order to switch customers away from the incumbent/dominant firm, the competitor must be able to provide an alternative service/product which is arguably an improved/more innovative product. The authors were speaking of this in the context of platforms for which complements were made; for instance a computer operating system. They suggested that the new entrant must also have the additional burden of rallying the producers of complements in order to be successful. In the case of most free high technology this may not be an option. Most complements in these markets are produced by the incumbent itself. For instance, social networks may provide a complementary search service on the same site of the social network; or a search engine can also provide its own mail service. Hence, with the absence of the option of rallying complement producers, it is important for new entrants to have a very innovative product as the incumbent has a lot of market power due to its established 'core'.

⁷³ See Melissa A Schilling 'Protecting if diffusion a technology platform: tradeoffs in appropriability, network externalities and architectural control' in Annabelle Gawer (ed) *Platforms, Markets and Innovation* (Edward Elgar Publishing 2009) 201- Aside from network effects technological functionality is also very important. The author gives the example of Sega taking share from the then dominant company Nintendo in the video games console market because it was able to offer better graphics processing.

has still been argued however, that the EU Commission has been ignoring the fact that the largest entities engaged in the high technology world, especially when they merge, benefit from massive barriers to entry (faced by competitors and potential competitors) arising from combined network effects.⁷⁴ It has been argued that network effects lead to incentives for anti-competitive behaviour and lead to barriers to competition from others even if competitors offer a more innovative and higher quality product.⁷⁵ New entrants/competitors would need a huge number of users to be able to compete as each additional user enhances the value of the product (which may also imply that lower price of competitors may not be relevant as consumers would be willing to pay the high value of the product).⁷⁶ This then leads to a cycle involving other companies in the downstream market producing further complements for the massive network allowing it to grow even larger.⁷⁷ As Argenton and Prufer explain, there needs to be a recognition that network effects lead to high barriers to entry which in turn lead to higher incentives to engage in anticompetitive behaviour; the network effects of search engines, for example, with even a slight lead in the market can keep their users locked in due to user habits and perceptions which leads to much less actual competition in the market.⁷⁸ The authors also mention the argument that opposes the high barriers argument on the basis of past examples where smaller competitors have entered the market and defeated a monopolist.⁷⁹ But the authors state that this does not change the fact that entry barriers still leads to anti-competitive effects.⁸⁰

⁷⁴ S Sheppard 'The EU's Traditional Analysis of the Facebook, Whatsapp deal- do we like it?' (2015) 25(5) *Comps. & Law* 11,12

⁷⁵ A Melamed & A. Douglas 'Network Industries and Antitrust' (1999) 23(1) *Harv JL & Pub Pol'y* 147, 149

⁷⁶ *Ibid* 150

⁷⁷ *Ibid*

⁷⁸ See C Argenton, & J Prufer 'Search Engine Competition with Network Externalities' (2012) 8(1) *JECL&Pract* 73-

⁷⁹ *Ibid*

⁸⁰ *Ibid*

Successful companies simply have to have had a head start in order to have massive network effects which lock users in; that way, both current and potential competitors would have a difficult time even getting their foot in.⁸¹ Such ideas have academic support in the earlier days of modern technology. For instance, economist Paul David in 1985 wrote a paper arguing that industries like these involve monopolists gaining power on the basis of premature ‘standardization... of the wrong system’.⁸² Let us look at this case study as an example comparable to the modern search engine. Paul David argued that the early entrance of the traditional QWERTY arrangement on typewriters and keyboards allowed it to benefit from network and lock-in effects that would defeat Dvorak’s superior keyboard arrangement and that it would be expensive and time consuming to retrain anyone on a different arrangement when virtually all users at the time were using the QWERTY system.⁸³ However, subsequent academic literature has attacked the notion of Dvorak’s superiority.⁸⁴ Liebowitz and Margolis have contended that Paul David ignored other strong evidence that QWERTY was superior and therefore failed to take into consideration that QWERTY possessed market power due to merit and not solely lock-in effects.⁸⁵

However, Paul David has counter-argued indicating that too much focus on the historical evidence behind the specific QWERTY case unfairly reduces the strength of the theory that lock-in effects can result in prevention of effective competition.⁸⁶ The presence of empirical evidence for a particular case does not make the theory incorrect.⁸⁷ This is a similar argument

⁸¹ Paul A. David ‘Clio and the Economics of QWERTY’ (1985) 75(2) Am Econ Rev 332, 336

⁸² Ibid

⁸³ Ibid

⁸⁴ S Liebowitz & S Margolis ‘The Fable of the Keys’ (1990) 33 J Law Econ 26

⁸⁵ Paul A David ‘Path Dependence, its critics and the quest for “historical economics”’ (All Souls College , Oxford and Stanford University Paper 2011 -024) available at <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.8.1129&rep=rep1&type=pdf> accessed on 16 September 2017

⁸⁶ Ibid

⁸⁷ Ibid

to that made by Douglas who stated that even if there are real world examples where entities benefitting from massive lock-in effects leading to high barriers are overtaken by other new emerging companies, the fact of the matter is that those effects can still lead to anti-competitive behaviour. Hence the theory of the renowned scholar Paul David remains valid. If there were such valid concerns with regards to the early days of the keyboard, the very real potential of the high entry barriers of technologically advanced digital products/services must be taken seriously as well.

We therefore see that innovation from smaller entities may not be sufficient to overcome barriers to entry. However, there is also another argument from the innovation angle that is interesting and shows that barriers are high. That is the notion that larger companies due to their size are able to innovate better than their competitors. We saw this in section 2.2.1 in terms of the literature on two sided networks. Here, we see it in recent literature specifically addressing competition law issues of search engines from an economics perspective.

Economists Jens Prufer and Cedric Argenton have concluded that large search engines are able to overtake and foreclose competitors in the market, not necessarily because of the quality of the algorithm applied on search data but because of their unique access to a massively larger amount of data (such as saved search queries from users) owing to the fact that they have been in operation longer and before their competitors and new entrants; this, so- to-speak ‘first mover advantage’ allowed them to accumulate data from their comparatively larger network of users⁸⁸ which is a very necessary ‘critical mass’ for a

⁸⁸ See also Viktor Mayer-Schonberger & Kenneth Cukier *Big Data: A Revolution that Will Transform How we live, work and think* (London: John Murray, 2013) 36-39- The belief is that simple algorithms with a lot of data will outperform sophisticated algorithms with little data.

successful platform.⁸⁹ This is also supported by EU Commission officials⁹⁰ who have commented:

‘In the digital economy, large sets of data (so-called 'big data') are becoming increasingly valuable as they reveal patterns of information that enable companies to understand user behaviour and preferences and improve (or target) their products and services accordingly. This makes the availability of 'big data' a significant competitive advantage for companies active in, for instance, targeted online advertising, online search, social networking services and software products. From a competition law perspective, a possible theory of harm is that combining the merging parties' datasets could provide them with a competitive advantage, by helping them to improve the merged entity's product or service post-merger in a way that competitors are unable to match’⁹¹

This data is therefore a huge barrier to entry that cannot be taken advantage of by new market entrants or smaller search engine companies. Prufer and Argenton take this argument very seriously to the point that they have recommended that all search engines should allow access to each other's data and compete purely on the algorithms the different engines apply.⁹²

⁸⁹ See David S Evans 'How catalysts ignite: the economics of platform-based start-ups' in Annabelle Gawer (ed) *Platforms, Markets and Innovation* (Edward Elgar Publishing 2009) 101- Although the author states that critical mass is required for a successful platform, he acknowledges that a high quality product is necessary to gain the critical mass. But this still means that once critical mass is gained (like established free high technology markets already have) it can lead to multiplied success, so to speak.

⁹⁰ See E Ocello, C Sjodin & A Subocs 'What's up with merger control in the digital sector? Lesson from the *Facebook/Whatsapp* EU merger case' (2015) 1 Competition Merger Brief 1

⁹¹ Ibid 6

⁹² Ibid page 13

The ‘first mover advantage’ argument in the area of digital markets is not unchallenged.⁹³ For instance, in 2001 economist Neil Gandall used Yahoo! as an example to support the argument that first mover advantages help companies in the beginning; but as time goes by, a company’s success is dependent on its ability to produce innovative products and services.⁹⁴ Other literature also supports this argument by pointing out previous examples of leading and pioneering technology companies in the industry, such as AOL and Kodak.⁹⁵ Gandall’s article was published in 2001, a time when Google was in their early days and Yahoo! was the search market leader. It would seem that Google’s current success over Yahoo! lends credence to Gandall’s article. However, it must be noted that the business model of Google currently is much different from that of Yahoo! when it possessed the greatest market power; search engines and other high technology companies nowadays merge with other large companies and create stronger network effects that would not have been realised in past search engine models.⁹⁶

⁹³ See for example, D Evans and R Schmalensee *Matchmakers- The New Economics of Multisided Platforms* (Harvard Business Review Press 2016) 26- the authors use the situation of VHS and Betamax (two formats for watching video tapes in earlier days) as an example to show that the first mover advantage is not a determinant of the success of a platform. Firstly, they start by explaining that both formats were virtually equal in terms of quality. But VHS had a slight lead when it came to numbers of users. VHS eventually drove Betamax out of the market. The authors state that it would be wrong to attribute this to the lead (or first mover advantage in the sense that they got more users based on equally good technology) and subsequent network effects. They argue that it should rather be attributed to VHS’ efforts and investments in getting more content producers to produce in the VHS format. Betamax could have done the same and survived despite it not having a lead. In other words, the argument here is that network effects do not lead to a perpetual and automatic spiral of increasing the number of users on both sides. Further efforts to get users and content producers aboard need to be made and network effects cannot be relied upon on their own. However, it is doubtful that such arguments are relevant to large platforms that are already well-established and have a huge number of users. The very same authors suggest in a later chapter (see page76) that once a platform gains critical mass (a very large number of users on both sides), from that point network effects can operate themselves to increase the number of users on both sides. This is more likely to apply to, for example, the search engines and social networks we consider in this thesis.

⁹⁴ N.Gandall ‘The dynamics of competition in the Internet search engine market’ [2001] 19 *International Journal of Industrial Organization* 1103-1117.

⁹⁵ M Rato & N Petit ‘Abuse of Dominance in Technology-Enabled Markets: Established Standards Reconsidered?’ (2013) 9(1) *Eur Competition J* 1, 2

⁹⁶Kristine Devine ‘Preserving Competition in Multi-Sided Innovative Markets: How do you solve a problem like Google?’ (2008) 10(1) *North Carolina Journal of Law and Technology* 60, 76

Interestingly, Gandall in a later paper in 2002 acknowledged that generally network effects created by an early lead of a company can be extremely hard to overcome.⁹⁷ After all the ‘first mover’ by virtue of being the earliest one to be in the market has the advantage of having comparatively more time, which provides more opportunity to learn by doing and therefore becoming more efficient.⁹⁸ This is true in modern digital companies where software products require a massive input from human capital (software programmers or engineers); it is said that industries that are more labour intensive than capital intensive as compared to machines, humans can correct their mistakes or change their skills much quicker.⁹⁹

Furthermore, despite prominent network economist Nicholas Economides’ opinion that it is in fact ideal for the modern digital company to hold a very high market share as long as consumers are not affected, he nonetheless clearly acknowledges that these industries involve network effects that lead to exponential effects that subsequently allow a company to have disproportionately more market share than even the second largest company.¹⁰⁰ Therefore even though there may be merit in the argument that ‘first mover advantage’ does not have long lasting effects, it is still an important factor that must be taken into consideration when deciding competition cases involving digital markets as it can still present a significant entry barrier. Given these arguments, it should be of major concern that this is an argument that has not featured as a determinant in, for examples, the EU Commission’s decision in the

⁹⁷ N Gandall ‘Compatibility, standardization and network effects: some policy implications’ (2002)

⁹⁸ Kenneth Arrow ‘The Economic Implications of Learning by Doing’ (1962) 29(3) *Rev Econ Stud* 155, 156. Also see William B Arthur *Increasing Returns and Path Dependency in the Economy* (University of Michigan Press 1994) FIND PAGE NUMBER- the more a complex technology is used, the more improved it becomes.

⁹⁹ E Wiersma ‘Conditions that shape the learning curve: factors that increase the ability and opportunity to learn’ 53(12) (2007) *Manag Sci* 1903

¹⁰⁰ Nicholas Economides ‘Antitrust issues in network industries’ (2010) in Ioannis Lianos and Ioannis Kokkoris (eds.), *The reform of EC competition law: new challenges*. Alphen aan den Rijn: Kluwer International Law, 343-376

Google/DoubleClick and Microsoft/Skype mergers. A company's early advantages gained via network effects can lead to a long upwards spiral towards increasing power despite the quality of the product or service provided.¹⁰¹

Therefore in the category of Commission cases concerning free high technology the EU Commission should also consider that the barriers to entry are in fact high due to factors such as first mover advantages and high capital requirements. Innovation on the part of smaller companies may therefore be insufficient to lower barriers to entry to the relevant market. User inertia increases barriers and the relatively larger size of incumbents enables them to be the only ones to innovate extensively in the first place. Hence the notion that high barriers to entry can be present in the free high technology sector is valid and does present a threat to the status quo for competition.

4.2.1.4 Conclusion on consistency and merits of the EU Commission's approach to barriers to entry

In this section we began by seeing how on the surface, it was quite reasonable for the EU Commission to view barriers to entry to be low in the free high technology sector. This was especially true in light of the consideration of the many more barriers that are present in other sectors such as telecommunications. However, we also saw that the EU Commission revealed in its analysis that barriers to entry may not be that low given that not all online competitors are successful. This reflected some inconsistency in rationalization. Furthermore, in terms of comparison with interoperability cases, there is an inconsistency between the two categories;

¹⁰¹ M Katz and C Shapiro 'Systems Competition and Network Effects' (1994) 8(2) Journal Econ Perspect 93, 107

this is in the sense that both categories in fact involve high barriers to entry and network effects, but in the online high technology sector the EU Commission considers barriers to entry to be very low. Through consideration of academic literature we considered that there is great merit in the argument that barriers to entry are high in such markets for factors such as ‘first mover advantage’. Even innovation on the part of a smaller potential competitor may not be enough to put competitive pressure on the larger dominant company, again indicating that barriers to entry are in fact high.

Overall we see that the EU Commission’s approach is inconsistent. It is confusing that barriers are considered low in one category of cases and high in another category with very similar features in terms of network effects. We need to keep this in mind as we move forward as it will help us formulate our hypothesis on why the EU Commission approaches free high technology cases in this particular fashion. In the next section we consider the EU Commission’s approach to lock-in, another form of network effect. Again we will see a number of inconsistencies and critical evaluation which make one question the comprehensiveness of the EU Commission’s approach.

4.2.2 Lock-in: An inconsistent approach on the part of the EU Commission

In the context of competition law lock-in occurs when a consumer uses a particular product or service and is not motivated to switch to an alternative due to psychological and economic reasons.¹⁰² Lock-in therefore does not necessarily have to be from a strict legal obligation resulting from a contract between parties to purchase a particular product or service from a

¹⁰² T Bjorkroth ‘Loyal or Locked-In and why should we care’ [2014] 10 J.C.L. & E. 47, 48

company but could result from the costs in terms of investing time and money into knowing how to use an alternative.¹⁰³ For instance, if a consumer chose to switch from one computer word programme to another, he/she would have to not only pay for the new program but also learn how to use it given the different settings and formatting. Some may consider this as an extra burden and simply decide to stick to the original program that they are used to. Such phenomena could prevent competitors from competing in the market for customers as customers get stuck on a particular company's product. Hence lock-in, like high barriers to entry is a threat to the protection of competition but also in a sense limits consumer choice. However, lock-in overall is discussed within the context of the ability of competitors to compete in the market and as an obstacle to exercising this ability.

On the other hand, some view this as a misinterpretation of a situation where the majority of consumers resolve to stay with the same product/service (as opposed to being coerced into doing so); there is opinion stating that the innovativeness of a product (as opposed to lock-in) can attract and retain customers and that this is misinterpreted as an unfair lock-in.¹⁰⁴ Italianer explains this type of misinterpretation would discourage companies from innovating and investing in their products and services further; companies would fear penalization by authorities for experiencing the benefits of network effects and therefore view achieving innovation as a lost cause.¹⁰⁵ In fact, it has also been argued that the high level of innovation that characterises the market is a clear testament to the lack of lock-in.¹⁰⁶ Where an economic

¹⁰³ J Farrell & C Shapiro 'Dynamic Competition with Switching Costs' (1988) 29 Rand J Econ 123

¹⁰⁴ Alexander Italianer 'Innovation and Competition' (2012) Chapter 15, International Antitrust Law & Policy, Competition Law Institute [Fordham University School of Law]

¹⁰⁵ Ibid

¹⁰⁶ See Giacomo Luchetta 'Is the Google Platform a Two-sided Market?' (2014) 10(1) JCL & E 185, 205. The author comments on the nature of a free high technology service like Google. He states 'If searchers could trade their personal information with another search engine that delivered a higher utility (that is, a higher and non-biased search quality), they would have every incentive to do so, just as workers can leave a firm if it offers

entity is unable to lock in consumers, it must maintain its clientele by consistently innovating.¹⁰⁷

In this particular section, we will assess the EU Commission's arguments on lock-in effects that arise from network effects.

4.2.2.1 Current view of the EU Commission of Lock-In Effects

The EU Commission has expressed its views on lock-in in several high technology cases. Like barriers to entry, it is another argument that centers around whether there is enough competition in the market to justify a merger or dominance-enhancing unilateral action. We therefore need to consider these cases to assess the accuracy of the analyses.

In the *Google/DoubleClick* merger investigation one of the major complaints against the merger arose from the idea that the newly merged entity would gain an unfair advantage from each other's client base.¹⁰⁸ For instance, Google could purely bundle its ad network service with Doubleclick's ad serving product, creating a lock-in.¹⁰⁹ The concern was that all of Doubleclick's customers would be locked into using AdSense (by Google) and vice versa through coercion; Google could state in their terms and conditions that they would only provide a service if the customer also used Doubleclick. Collectively, with such exclusionary

lower wages than does its competitors.⁷² It has already been stressed that Google is not Microsoft, as it cannot rely on network externalities, both intra- and inter-side, to lock in consumers. This ensures a better alignment of Google's and consumers' incentives. For this reason, Google has strong incentives not to dilute the quality of its search results—at least to a certain extent—because users could migrate, thereby shrinking ad Revenues'

¹⁰⁷ Ibid

¹⁰⁸ *Google/DoubleClick* (Case No COMP/M.4731) [2008] paragraph 224 available at http://ec.europa.eu/competition/mergers/cases/decisions/m4731_20080311_20682_en.pdf accessed on 16 September 2017

¹⁰⁹ Ibid

terms, the merged entity could unfairly gain a larger customer base. However, the EU Commission found that there was enough competition in the ad serving market and Doubleclick customers could simply switch away to a competitor; customers were free to do so as they were not bound by any contractual terms to stick to the Doubleclick service for a particular period of time.¹¹⁰

Another concern that was raised had to do with the search engine effecting its ability to tweak its system in a fashion that would force more Doubleclick customers to use AdSense and hence get locked-in.¹¹¹ This concern was not substantiated however; the EU Commission acknowledged that such a strategy was unlikely given that the terms and conditions of Doubleclick customers obligates Doubleclick to keep all information they gather private.¹¹² It is important to note that these lock-ins discussed thus far are contractual and technical in nature. However, the EU Commission's views on these types of lock-in would not be based on the wider picture, which should entail a serious recognition and consideration of more subtle, yet potent, lock-in effects;¹¹³ in other words one must look beyond the legal terms and conditions and consider whether the practical effect leads to a lock in. Kristine Devine has argued that each user of a search engine creates a 'positive feedback loop'¹¹⁴ leading to an extensive network effect.¹¹⁵ The European Travel Commission has stated that Google has a

¹¹⁰ See S Lewis & A Lofaro 'Google/Doubleclick; the search for a theory of harm' (2008) 29(12) E.C.L.R 717, 720. The authors noted that one of the concerns in the Google/Doubleclick investigation was tipping through network effects; advertisers using Doubleclick could end up having to join Google's ad network. The authors recognized however that such concerns were mainly valid in cases where customers typically used one platform. However, the authors comment that the evidence in the case of Google/Doubleclick suggests strongly that advertisers and publishers can easily switch in a costless manner.

¹¹¹ *Google/Doubleclick* (Case No COMP/M.4731) [2008] paragraph 316 available at http://ec.europa.eu/competition/mergers/cases/decisions/m4731_20080311_20682_en.pdf accessed on 16 September 2017 para 316

¹¹² *Ibid*

¹¹³ Kristine Devine 'Preserving Competition in Multi-Sided Innovative Markets: How do you solve a problem like Google?' (2008) 10(1) NC JL & Tech 60

¹¹⁴ *Ibid* p 63

¹¹⁵ *Ibid*

major share in terms of users, especially in the search and search ad markets.¹¹⁶ For instance, if *Google/DoubleClick* were to bundle together their products, Doubleclick's customers could see the benefit of having new access to Google's massive database of users who will potentially click their advertisements. In such scenarios, *Google/DoubleClick* could exercise more bargaining power with regards to changing their terms and conditions and create a system where customers' information is no longer private and can be used to strongly persuade them into using Google's other products.

It must be noted of course, there is no obligation for search engine users to use Google only and they can still switch to another engine for free; it has been argued that currently users share information quickly and freely and can therefore get to know about alternative search engines of higher quality.¹¹⁷ Hence, if search engine users are not happy about their privacy being invaded, they will have the information needed to switch to an engine they like better; therefore search engine users cannot be locked-in. Given this, one could state that the market power of Google in search can vary and therefore its ability to lock-in customers through the allure of a large base of search users may be short lived.

However, Dorsey and McGuire argue that, despite a high technology's lack of coercion power in the most literal of senses, its beneficially strong lock-in effects allow it to leverage in a way that is tantamount to possessing coercion powers.¹¹⁸ Devine argues that companies like Google merge with innovative companies to attract more customers.¹¹⁹ Such mergers can

¹¹⁶ European Travel Commission Digital Portal 'Search Engines' <http://etc-digital.org/digital-trends/consumer-behaviour/search-engines/regional-overview/europe/> accessed 16th November 2014

¹¹⁷ Daniel F Spulber 'Unlocking Technology' (2008) 4 J.C.L.&E. 915, 916

¹¹⁸ E Dorsey & M McGuire 'How the Google Consent Order Alters the Process and Outcomes of FRAND bargaining' (2012-2013) 20 Geo. Mason L. Rev 983

¹¹⁹ Kristine Laudadio Devine 'Preserving Competition in Multi-Sided Innovative Markets: How do you solve a problem like Google?' North Carolina Journal of Law and Technology Volume 10: Issue 1: Fall 2008) p 63

take place with companies that produce a service/product which is a complement to that of the other merging company and can create massive value for the main platform, such as a search engine.¹²⁰ With more mergers, such companies can offer various products to the same users and customers across all of their product markets. These links to other related services could generate lock-in effects.¹²¹ For instance, when one visits a prominent search engine, he/she may see an ‘Apps’ tab conveniently placed on the top right hand corner. This tab leads to all of the search engine’s other products and services without forcing the user to browse elsewhere or open a new tab and enter a different URL for a different service of that search engine. These lock-in effects are the very elements that may give such companies the bargaining power to carry out business on their own terms and conditions whilst maintaining and further obtaining customers.¹²² In turn, this can lead to very high switching costs and barriers to entry for competitors.¹²³

Despite the arguments above stating that lock-in effects are indeed very strong, it appears quite clear that the EU Commission’s view in *Google/DoubleClick* is that lock-in effects can be easily overcome even where very large companies with network effects are involved. It is important to realise that both companies themselves have huge shares in their respective markets. This also reflects the idea that Google is able to provide better advertising spaces as

¹²⁰ Annabelle Gawer ‘Platform dynamics and strategies: from products to services’ in Annabelle Gawer (ed) *Platforms, Markets and Innovation* (Edward Elgar Publishing 2009) p 64. Also see A Gawer & M Cusumano ‘How companies become platform leaders’ (2008) 49 *Sloan Manage Rev* 28 (NEED TO READ TO ENSURE INFO IS THERE)- The authors state that Microsoft benefits from the competition between PC manufacturers which produce complements for Microsoft products so to speak. This competition leads to innovation in the complements which then in turn provides a lot of value for a company like Microsoft.

¹²¹ See B Edelman & J Wright ‘Debate on Antitrust Scrutiny of Google’ (2012) 2 *J.L* 445, 446. ‘...(A)ny user who wants Google search is forced to receive Google’s other services too’

¹²² See T Eisenmann ‘Managing networked businesses: course overview for educators’ (2007) Harvard Business School Note 807-103- customer retention rates improve with this sort of bundling even if users have a bad experience as they will think twice before switching to another service as they are, so to speak, tied to the additional convenience/value provided by the complements.

¹²³ Kristine Devine ‘Preserving Competition in Multi-Sided Innovative Markets: How do you solve a problem like Google?’ (2008) 10(1) *NC JL & Tech* 60, 84

it has the most users. In turn, it could easily lock-in customers to Doubleclick by conveniently placing it in their reach. In such a way customers are coerced and locked-in. It is therefore confusing that the EU Commission would not consider these arguments.

We will see under the next sub-heading how the European Court of Justice has historically had a very different view of lock-in effects. We will therefore see another major inconsistency.

4.2.2.2 Courts' Views on Lock-in Effects

It would be logical to start looking at earlier cases and consider how the General Court has viewed lock-in effects historically. In this section we start off by looking at *Microsoft v Commission*.¹²⁴ This case is not only looked at as a classic case of lock-in and network effects in general, but also considered as an important milestone in a series of refusal to supply case law.¹²⁵ This is very relevant to the thesis because *Microsoft v Commission* does not, as we will see, directly meet the classic requirements for a refusal to supply claim to be successful; however, it succeeds. It stands out amongst the rest of the refusal to supply case law as uniquely involving strong lock-in arising from strong network effects. In this section we therefore analyse this set of case law with the purpose of distinguishing *Microsoft v Commission* and hence demonstrating the courts' historical view that lock-in effects cause concerns for competition.

¹²⁴ Case T-201/04 *Microsoft v Commission* [2007] ECR II-3619

¹²⁵ M Reynolds & C Best 'Article 102 and Innovation The Journey since Microsoft' Chapter 16, International Antitrust Law & Policy, 2012 Competition Law Institute

In 1998, Sun Microsystems Inc complained to the EU Commission that Microsoft (the dominant entity in the market for operating system) disclosed solely standard interoperability information and protocols as opposed to a comprehensive set of information; a comprehensive list would allow Sun Microsystems and other companies downstream to produce a network group server operating system which could compete on the same level as Microsoft's own network operating system.¹²⁶ The court agreed with the EU Commission that lock-in of consumers with Microsoft's network operating system was more likely and that Microsoft was abusing a dominant position in the market of operating systems.¹²⁷

One of the major differences between prior case law on refusal to supply and *Microsoft v Commission* is the presence of lock-in and network effects in general. The case of *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v Commission of the European Communities*¹²⁸ (otherwise known as *Magill*) in the European Court of Justice is considered to set out the basic principles¹²⁹ by which it is to be determined when a refusal to supply a certain resource or service constitutes a breach of Article 102.¹³⁰ This case involved three different television broadcasting channels who published lists of their own daily programs every day in newspapers; lists over which they had copyright.¹³¹ What Magill TV guide wanted to do was to publish a unique and innovative product i.e. a weekly comprehensive television guide containing program lists from all three channels; the broadcasting channels refused to grant the copyright license.¹³² The court judged this action

¹²⁶ Case T-201/04 *Microsoft Corp. v Commission of the European Communities* [2007] CFI

¹²⁷ *Ibid* para 606

¹²⁸ Joined cases C-241/91 P and C-242/91 P *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v Commission of the European Communities* [1995] ECR I-00743

¹²⁹ Inge Graef 'Tailoring the essential facilities doctrine to the IT sector: compulsory licensing of intellectual property rights after Microsoft' (2011) 7(1) CSLR. 1, 3

¹³⁰ Joined cases C-241/91 P and C-242/91 P *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v Commission of the European Communities* [1995] ECR I-00743

¹³¹ *Ibid*

¹³² *Ibid*

to be an abuse of a dominant position for the following factors. The refusal prevented the emergence of a new product in a new market; the licensing of the individual channel program lists was an indispensable raw material for the production of a weekly guide; the refusal would mean that the television channels were exclusively reserving to themselves a secondary market where they obliterated any probability of competition; and finally there was no justification of any sort provided for the refusal.¹³³

Microsoft v Commission can be distinguished on the fact that it did not involve the creation of a completely new product, but the same product with perhaps some modifications.

Furthermore in the case of *Oscar Bronner GmbH & Co. KG v. Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG*¹³⁴ Bronner was the owner of a daily Austrian newspaper known as *Der Standard* which had a small share of 3.6% of the national daily newspaper market.¹³⁵ It distributed its newspapers through postal delivery, which meant that the time at which the newspaper was delivered to households was in the hands of whichever company they contracted with for the post; Mediaprint on the other hand published two different newspapers, which together held a market share of 46.8% of the national daily newspaper market.¹³⁶ However, Mediaprint also distributed these two papers themselves directly to customers through their own home delivery system (which was the only of its kind in Austria).¹³⁷ Bronner requested the use of this home delivery service in return for a reasonable price as it allowed the earlier delivery of papers in the morning; but this access

¹³³ Ibid

¹³⁴ Case C-7/97 *Oscar Bronner GmbH & Co. KG v. Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG* [1998] E.C.R. I-7791

¹³⁵ Ibid

¹³⁶ Ibid

¹³⁷ Case C-7/97 *Oscar Bronner GmbH & Co. KG v. Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG* [1998] E.C.R. I-7791

was denied by Mediaprint.¹³⁸ The European Court of Justice ruled that this was not an abuse of a dominant position and that whilst the postal service may be slightly less advantageous, it still enabled Bronner to carry out its business.¹³⁹

The facts in Bronner generally appear similar to *Microsoft v Commission* in the sense that like Oscar Bronner, Sun Microsystems wanted to be able to make improvements to its program so it could compete on the same level with Microsoft. Oscar Bronner wanted to do the same with Media Print. Yet the decision in *Microsoft v Commission* was to find abuse while in Bronner it was not. As we will find out in the next paragraph, this is likely to be because of the significant lock-in effects present in Microsoft.

It can quite easily be argued that the Microsoft case is not completely consistent with these classic ‘refusal to supply’ cases. Sun Microsystems was not trying to create a wholly new product as seen in the *Magill* case; furthermore, they already had the codes to create a competing network operating system. Also, they had similar desires as Oscar Bronner in the sense that they wanted access to something that would enable them to improve their product so it could compete on the same level as rivals (in Oscar Bronner it was improving the delivery of the product to allow it to compete on the same level as its rival Mediaprint which could deliver on time).

So why was it that the courts ruled that access should be granted to Sun Microsystems for the improvement of a product that was not new and was already being produced in the market and already had a level of interoperability with the dominant platform? One of the unique

¹³⁸ Ibid

¹³⁹ Ibid

standout issues in the Microsoft case appears to be network effects and this could therefore be a reason why it was treated differently given previous principles on refusal to supply.¹⁴⁰ As we saw, due to Microsoft having the most widely used operating system platform, there was a danger that it could eliminate competition as users could be locked-in to using Microsoft servers, not only because it controlled the platform and could make it accessible more easily to users and lock-in, but mainly because it was able to produce a better product/service as it solely had access to full inter-operability information.

Furthermore, and very importantly, the idea of lock-in on a platform was further enhanced in other investigations into Microsoft. In the years 2004 and 2009 there were investigations into Microsoft's tying practices concerning services which could alternatively be downloaded for free. In both years Microsoft had remedies and fines sanctioned against it by the EU Commission for bundling their own media player and web browser respectively to their operating system; the bundling would lock consumers in due to the network effects stemming from Microsoft's dominant position in the operating system market.¹⁴¹

In conclusion, the *Microsoft v Commission* judgement along with the other Microsoft investigations, not only accentuates the real impact of lock-in effects where there is a company with a dominant position, but also the difference in the treatment of lock-in effects when compared to the EU Commission's cases on the free high technology sector. Therefore lock-in effects should be considered as high in the free high technology sector as well and as

¹⁴⁰ See for example Anneleen Straetmans 'The EU Microsoft case: not as soft a case' (2007-2008) 44(4) *Jura Falconis* Jg. 563 available at <https://www.law.kuleuven.be/jura/art/44n4/straetmans.pdf> accessed on 28 August 2017- 'With regards to operating systems, indirect network effects can cause greater disadvantages to potential market entrants than in other high technology markets, due to the special features of the PC operating system market'

¹⁴¹ EU Commission 'Commission concludes on Microsoft investigation, imposes conduct remedies and a fine' (24th March 2004) http://europa.eu/rapid/press-release_IP-04-382_en.htm?locale=en accessed on 20th April 2015

a constraint on the ability of potential competitors to enter the market and of current competitors to compete. The EU Commission's views on lock-in in free high technology cases and *Google/DoubleClick* can be said to be limited. Again, this needs to be kept in mind when we formulate our hypothesis later on in the chapter, in section 3.5.

We will now turn to the final form of network effects to be discussed; switching costs.

4.2.3 Switching costs- A consistent but unmeritorious approach on the part of the EU

Commission

Switching costs are those that are borne by the consumer when he or she decides to switch from one product or service to another; these can take the form of learning costs (the cost of learning and getting used to the new product/service) and are more than capable of preventing a consumer from switching all together.¹⁴² For example, a consumer could have been using a particular email service for a very long time and is very used to the format and operation of those services. If he/she decides to switch to a different email service, he/she faces a different format and possibly different type of operation. The time taken to learn and get used to the new format would be considered as a cost and an encumbrance by the consumer and would play an important part in his/her decision as to whether or not to switch. In this particular sub-section, we fundamentally consider switching between free high technology services.

¹⁴² Ulla-Majja Mylly 'An evolutionary economics perspective on computer program interoperability and copyright' (2010) 41(3) IIC 284, 297

Eventually in this subsection, a lot of discussion will revolve around switching between search engines. As we will see, this is an argument that is contested in the academic literature¹⁴³ and therefore needs to be evaluated to see how accurate the EU Commission's views are. The reason that search engine switching is specifically considered is because it appears to epitomize perhaps the easiest and least costly possible switching between economic entities by consumers; all the user has to do is type in a different web address in the same browser and another search engine can pop up for free. The general consensus in the EU Commission is that switching costs are very low when it comes to search engines.¹⁴⁴ Competition is therefore protected due to low switching costs as customers can easily switch to another service.¹⁴⁵ Yet, the literature does not always agree that switching costs are low;¹⁴⁶ and given that many of the EU Commission's current high profile investigations concern search engines, it is important that this thesis addresses switching in this specific area. Furthermore, search engines are one of the most appropriate examples of the type of company this thesis concerns i.e. a large company with large market share in a market where an easily accessible free service is provided to consumers.

¹⁴³ See for example, Ryan W. White & Susan T. Dumais, *Characterizing and Predicting Search Engine Switching Behavior*, presented at the 18th ACM Conference on Information and Knowledge Management (2009); <<https://www.microsoft.com/en-us/research/wp-content/uploads/2016/08/CIKM2009-Switching-fp1012-white.pdf>> accessed on 11th March 2014 – this will be discussed in greater detail below.

¹⁴⁴ We will see this in our analysis of *Microsoft/Skype* (Case No COMP/M.6281) [2011] at http://ec.europa.eu/competition/mergers/cases/decisions/m6281_924_2.pdf accessed on 5th February 2015, *Facebook/Whatsapp* (Case No COMP/M.7217) [2014] available at http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf accessed on 23rd July 2017, Google Inc 'Commitments in Case COMP/C-3/39.740- Foundem & Others' http://ec.europa.eu/competition/antitrust/cases/dec_docs/39740/39740_8608_5.pdf accessed 16th February 2014

¹⁴⁵ *Ibid*

¹⁴⁶ See for example, David G Yosifon 'Consumer Lock-In and theory of the firm' (2012) 35(4) Seattle University Law Review 1429 and Gal Zauberman, 'The Intertemporal Dynamics of Consumer Lock-In' (2003) 30 J. Consumer Res. 405

4.2.3.1 The EU Commission's View on Switching Costs

In determining the consistency with which the arguments surrounding switching costs is applied we can start off with recent online high technology market cases where the general opinion of the EU Commission is that switching costs are extremely low. In *Microsoft/Skype* the EU Commission considered that switching costs were low and it gave a very specific reason for this. Skype communications were used for keeping in touch with a small group of five or six individuals which included family members and close friends.¹⁴⁷ Hence, if there was a competing communications application it would be easy to switch to it as it would simply be a matter of a small number of individuals switching to a different communications platform.

Furthermore, in the European Competition Commission's investigation of the *Facebook/Whatsapp* merger one of the main legitimate¹⁴⁸ concerns raised by opposing parties was the fact that Facebook (a social networking online/mobile phone/tablet application) would immensely benefit from the network effects of Whatsapp (a mobile phone communications application) which connects over 1 billion users and keeps adding significant numbers of users to the network on a daily basis.¹⁴⁹ However, the EU Commission stated that the switching costs were low; downloading alternative communications

¹⁴⁷ *Microsoft/ Skype* (Case No COMP/M.6281) [2011] paragraph 130 at

http://ec.europa.eu/competition/mergers/cases/decisions/m6281_924_2.pdf accessed on 5th February 2015

¹⁴⁸ See M Stucke & A Grunes *Big Data and Competition Policy* (OUP Oxford 2016) 168- the authors argue that the EU Commission may have missed the important point that Whatsapp and Facebook users would find it very hard to simply switch to a different communications application because they would be locked-in by the fact that they have most of their friends on it who may also be in communication groups.

¹⁴⁹ *Facebook/Whatsapp* (Case No COMP/M.7217) [2014] paragraph 132 available at

http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf accessed on 23rd July 2017

applications was completely free and most people multi-homed with several applications simultaneously on the same device.¹⁵⁰ This reflects that the EU Commission is of the opinion that switching costs would typically be low where the use of technology is free and there is a typical use of multiple services that are similar.

Other examples of this could be switching between search engines, free media players (for example iTunes and Windows Media Player) and online shopping applications. However, one inconsistency that can be seen here is that the EU Commission ignored the fact that users of both Facebook and Whatsapp have multiple contacts on these networks and therefore switching can be difficult whilst in *Microsoft/Skype* it indicated that the more people there are on the network that keep in touch regularly, the higher the switching cost. There is an inconsistency in logic here that could make one question the completeness of the EU Commission's analysis in *Facebook/Whatsapp*.

Furthermore, the EU Commission's support for the idea of low switching costs for consumers in these types of online high technology markets can also be inferred from some of the EU Commission's acceptance of commitments from parties under investigation. On 13th November 2010, on the basis of its authority¹⁵¹ to apply Articles 101 and 102 of the Treaty of the Functioning of the European Union (TFEU), the EU Commission opened up an anti-trust investigation into Google as a search engine; it had been spurred by complaints raised mainly by vertical search engines.¹⁵² Vertical search engines are specialist engines that only search

¹⁵⁰ Ibid para 133

¹⁵¹ See Articles 5 and 11(6) of Council TFEU Regulation No 1/2003 of 16th December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty.

¹⁵² European Commission 'Antitrust: Commission probes allegations of antitrust violations by Google' 30th November 2010 Press Release <http://europa.eu/rapid/press-release_IP-10-1624_en.htm?locale=en> accessed 11th February 2014.

in specific areas as opposed to the entire web like Google and Yahoo. For instance, Yelp is a search engine which specifically provides reviews on businesses such as restaurants. Such vertical search engines have complained that Google favours and displays either its own vertical results or advertisements it has charged for to other entities over others.¹⁵³ On 3rd April 2013 Google published its proposed Commitments towards resolving competition concerns.¹⁵⁴ As we will see, the EU Commission's acceptance of these Commitments was strongly indicative of its opinion that free high technology markets are associated with low switching costs.

The first aspect the EU Commission deals with is the issue of Google's own services being put in top priority over all other rival vertical search results.¹⁵⁵ The EU Commission looked at examples of search results as part of their investigation. If an internet user were to type a product such as 'camera' into Google's search box, Google's own specialised shopping results would be coming up first on the top of the page. Google has made a commitment saying that 'if for more than 5% of page views by EEA users... (at least one paid specialized search result was shown) '¹⁵⁶ it would firstly highlight it with a large conspicuous icon that would indicate the link as a culmination of a specialised google search result.¹⁵⁷ Secondly, the icon would clearly explain that it was a specialized search result by Google.¹⁵⁸ Thirdly, it would clearly refer and direct the user to pertinent links from rival vertical search results.¹⁵⁹

¹⁵³ Ibid

¹⁵⁴ Google Inc 'Commitments in Case COMP/C-3/39.740- Foundem &Others' http://ec.europa.eu/competition/antitrust/cases/dec_docs/39740/39740_8608_5.pdf accessed 16th February 2014

¹⁵⁵ Ibid

¹⁵⁶ Ibid

¹⁵⁷ Ibid

¹⁵⁸ Ibid

¹⁵⁹ Ibid

Although Google has stated that it would provide information about rival links, it does not actually address the priority of its different search results.¹⁶⁰ Hence Google shopping, for instance would still remain on the top of the search results. This is a competition issue because it ‘concern(s) behaviour where the dominant undertaking favours its own products or services on an ancillary market over its competitors’ products and services’.¹⁶¹ Visually (especially with all the large images linked to the specialised results) the specialised results look more attractive and prominent above the rest.

In summary the acceptance of these commitments meant that Google is still allowed to rank its own services and products on top even if the results are inorganic. However, leaving the ability to prioritise Google’s own vertical results is still a competition issue that some literature indicates the accepted commitments by Google do not resolve;¹⁶² there have been suggestions for the implementation of stricter measures that are apparently viable. For example, there have been calls to go beyond simple labelling of sponsored results and to actually set up a committee that investigates in detail Google’s algorithm to see whether

¹⁶⁰ Fair Search ‘A letter on restoring competition in online search’ (18 September 2012) <<http://www.fairsearch.org/content-scraping/a-letter-on-restoring-competition-in-online-search/>> accessed 13th November 2014 ‘Simply requiring Google to accurately label its products, paid search results and advertisements will not undo the harm to competition that Google already has inflicted... In the end, placement matters far more than labeling’. Also see D Hyman & D Franklyn ‘Search Neutrality, Search Bias and the Limits of Antitrust: An Empirical Perspective on Architecture and Labeling Remedies’ (Univ. of Ill. Program in Law, Behavior & Soc. Sci. Research Paper No. LE13-24; Univ. of S.F. Law Research Paper No. 2013-15, July 2015) 2 available at <http://ssrn.com/abstract=2260942> accessed on 16th September 2017- placement in the ranking is more important than labelling to users

¹⁶¹Sophie Van Loon ‘The Power of Google: First Mover Advantage or Abuse of a Dominant Position’ in A. Lopez-Tarruella (ed) *Google and the law* (Information Technology and Law Review) (Asser Press, Netherlands 2012)

¹⁶² For example, prioritization of own vertical search results could mean sacrificing considerable advertising revenue from vertical competitors could strongly indicate an exclusionary strategy which fall foul of competition rules. See Lars Wiethaus ‘Google’s Favouring of Own Services: Comments from an Economic Perspective’(2015) 6(7) JECL & Pract 506, 511

there are any deliberate biases.¹⁶³ Google's ranking algorithm needs to be closely scrutinized as competition is not really 'one click away'; the company has the resources to have massive competitive advantages.¹⁶⁴ A more straightforward and obvious remedy would have been to simply order Google to stop placing its own vertical search results on the top of the page or to stop placing it in this manner less often.¹⁶⁵ A more stringent measure would be to order Google to cease all activities in the vertical search market.¹⁶⁶

Given the viability of the above stricter alternatives that directly tackle the level of competition in the market, the EU Commission's acceptance of the Commitments could reflect a belief that switching costs are low and that network effects in general are not that potent. This, after all, generally fits into the narrative of the presence of low cost switching, which in turn leads to the concomitant effects of lock-in and high entry barriers that we have seen so far. Google's Eric Schmidt and its supporters have regularly used the argument that 'competition is a click away'¹⁶⁷ to justify such practices.

In light of the EU Commission investigations and decisions above, it appears as though the EU Commission concurred with them on this point. The EU Commission's strong indication

¹⁶³ Frank Pasquale 'Paradoxes of Digital Antitrust: Why the FTC Failed to Explain Its Inaction on Search Bias' (2013) Harv JL & Tech available at http://digitalcommons.law.umaryland.edu/cgi/viewcontent.cgi?article=2437&context=fac_pubs accessed on 16 September 2017

¹⁶⁴ Ibid

¹⁶⁵ Andrea Renda 'Searching for harm or harming search? A look at the European Commission's antitrust investigation against Google' (No.118, CEPS Special Report, Thinking Ahead for Europe, September 2015) 41 available at <https://www.ceps.eu/system/files/AR%20Antitrust%20Investigation%20Google.pdf> accessed on 23rd August 2017. Also see Lisa Mays 'The Consequences of Search Bias: How Application of the Essential Facilities Doctrine Remedies Google's Unrestricted Monopoly on Search in the United States and Europe' (2015) 83(2)Geo. Wash. L. Rev. 721, 755

¹⁶⁶ Ibid 42

¹⁶⁷ Testimony of Eric Schmidt, Executive Chairman, Google Inc. before the Senate Committee on the Judiciary Subcommittee on Antitrust, Competition Policy, and Consumer Rights (Google, September 21st 2011) <http://searchengineland.com/figz/wp-content/uploads/2011/09/Eric-Schmidt-Testimony.pdf> accessed on 13th February 2014

that consumers would simply switch away seems to be based on a strictly logical economic sense; it is assumed that users are simply rational when it comes to deciding whether or not to switch away from a product/service.¹⁶⁸ It has been recognised that despite the commonly held idea that ‘switching cost lock-in is perhaps “irrational” in the sense that fully rational, preference maximizing actors would anticipate and safeguard against it,’¹⁶⁹ consumers are still very likely to act in the opposite way due to general human psychology.¹⁷⁰ Consumers tend to fail anticipation of future switching costs as they only think rationally in terms of the present costs.¹⁷¹ So when the future arrives they are faced with unanticipated costs which prevent them from switching.¹⁷² Zauberman mentioned with specific reference to the internet that even when switching costs are objectively low as they are on the internet, the lock in effects lead to the avoidance of such costs and subsequent switching.¹⁷³

In terms of this merger for instance, with Google’s bundling and access to massive data, the cost of switching is high in the sense that the consumer would have to give up access to that data. In terms of just general search engine users, for instance, it would mean the user giving up easy access to Google’s other products which are conveniently available on their main web page such as maps, shopping and YouTube. In other words leaving those behind would be the switching cost. This goes to show that online high technology companies with massive network effects can prevent switching due to the perceived switching costs faced by consumers.

¹⁶⁸ See M Ilg, ‘Imposing Self-Interest: Behavioural Law and Economics, the Ultimate Game and Value Possibilities’ (Spring 2005) 28 Dalhousie L.J. 141, 142. ‘Law and Economic Scholars tend to rely upon a notion of individuality incorporated from economic theory, which assumes that individuals are rational maximizers of their own self-interest.’

¹⁶⁹ David G Yosifon ‘Consumer Lock-In and theory of the firm’ (2012) 35(4) Seattle University Law Review 1429, 1451

¹⁷⁰ Ibid

¹⁷¹ Gal Zauberman, ‘The Intertemporal Dynamics of Consumer Lock-In’ (2003) 30 J. Consumer Res. 405,406

¹⁷² Ibid

¹⁷³ Ibid

The EU Commission itself has previously, in fact, been a proponent of this notion. In 2009 Microsoft had to negotiate a remedy with the EU Commission for pre-installing its web browser in its operating system; competing web browsers complained that the pre-installation made it more unlikely for consumers to download alternative browsers.¹⁷⁴ The EU Commission agreed to a remedy involving Microsoft presenting an option to users to download alternative browsers when they first start using the operating system.¹⁷⁵

The recent Commission investigations (for example *Facebook/Whatsapp* and *Microsoft/Skype*) do not at any point distinguish these Microsoft cases in the context of network effects. Alternative media players and web browsers can be downloaded for free and switched to with the same level of convenience as one can switch between search engines and communication applications/programs.¹⁷⁶ If there are such arguments with regards to the difficulty of switching in a case where one can download an alternative software (media player or browser) for free, the same arguments could justifiably be applied to a situation where a company concerning search engines and communication applications with a massive network of users can tie its users. Hence, there appears to be an inconsistency in the way the EU Commission treats network effects.

¹⁷⁴ EU Commission ‘Antitrust: Commission accepts Microsoft commitments to give users browser choice – frequently asked questions’ 16th December 2009 http://europa.eu/rapid/press-release_MEMO-09-558_en.htm?locale=en accessed on 20th April 2015

¹⁷⁵ Ibid

¹⁷⁶ See Hedvig Schmidt ‘Article 82: is technological integration checkmated?’ (2009) 4 JBL 354, 371- the author suggests that despite pre-installation of Windows Media Player on to the Windows operating system in *Microsoft v Commission*, downloading an alternate media player is an equally viable alternative. The author may be indicating that downloading a free media player is not a difficult process.

Some particular knowledge on search engine switching can provide us with a unique perspective on the reality of switching in the search engine market.¹⁷⁷ By looking at some prominent opposing American literature, we can also more specifically consider the debate with regards to switching being easy in the search market. We can then come to a well-informed conclusion as to whether or not switching should be considered low in the high technology sector.

Some of the literature suggests that the zero switching cost concept of switching between search engines we saw above may be questioned. The information collected from users on websites can be considered as an economic good;¹⁷⁸ Newman and Grunes argue that the search company with most data on consumers are able to provide a more specialised service for them,¹⁷⁹ leading to a high switching cost (the cost of giving up a specialised service), let alone high entry barriers for new companies. This is not congruent with the EU Commission's current view on switching costs being low. Newman and Grunes appear to suggest that even when evaluating the possibility of switching between high technology products/services which are free, one must take into consideration the quality level provided by that product/service; if the quality (or specialized service as mentioned before) is high, switching may be more difficult for a consumer benefitting from the quality even if switching is cost-free and relatively hassle-free. Hence, the EU Commission's argument that switching cost is low may not be accurate.

¹⁷⁷ N Newman & A Grunes – Lecture at George Mason Law & Economics Center Briefing on Big Data, Privacy, and Antitrust (March 18th 2015) available at <http://masonlec.org/events/briefing-big-data-privacy-antitrust/> accessed on 3rd January 2018

¹⁷⁸ Marcelo Thompson 'In Search for Alterity: On Google, Neutrality and Otherness' (2011) 14 Tul. J. Tech & Intell. Prop 137, 165

¹⁷⁹ N Newman & A Grunes – Lecture at George Mason Law & Economics Center Briefing on Big Data, Privacy, and Antitrust (March 18th 2015) available at <http://masonlec.org/events/briefing-big-data-privacy-antitrust/> accessed on 3rd January 2018

Furthermore, the idea that switching to a different search engine is at no cost cannot go unchallenged in the presence of the theory of heuristics in behavioural economics.¹⁸⁰

Conventionally, ‘authorities-- when assessing the merging parties’ incentives to degrade quality for the free product--assume that consumers (can)...detect the degradation in quality and would want to switch to rival products or services.’¹⁸¹ However, heuristics looks at the other factors beyond this assumption about the ability of consumers and apart from price changes that effect consumer behaviour.¹⁸² Consumers will generally purchase particular products because they are used to buying them and because of their biases.¹⁸³ Even if there is a better product as an alternative out in the market, a good portion of consumers are not simply going to switch to it.¹⁸⁴ This is a form of brand loyalty that may weaken competition (as alternatives will be ignored even if they provide better quality) despite the existence of numerous online alternatives.¹⁸⁵ This is helped by the fact that many users simply assume a large search engine’s ranking is correct¹⁸⁶ without carrying out any further searches and

¹⁸⁰ Edward Cartwright *Behavioural Economics* (Routledge London/New York 2011) 28

¹⁸¹ A Ezrachi & M Stucke ‘The Curious case of Competition and Quality’ (2015) *JAE* 1,8

¹⁸² *Ibid*

¹⁸³ *Ibid*

¹⁸⁴ See Samuel Issacharof ‘Can there be a behavioural law and economics?’ (1998) 51 *Vand. L. Rev* 1730. Discussion of what is known as the endowment effect which indicates that people may hold on to what they already have instead of purchasing something else of almost the same value. For instance, one may value having hard to come by sports tickets but would not be willing to purchase them for an equal value. Also you may not be willing to part with the tickets simply because you can make a lot of money off of it. In other words you may value something highly, but may not be willing to pay the sum you value it at. See also B Rezaabakhsh, D Bornemann, U Hansen & U Schrader ‘Consumer Power: A Comparison of the old economy and the Internet economy’ (2006) 29 *JCP* 3- although the article clearly emphasizes that the internet has given the consumer a chance to compare and contrast product/services with more transparency, it emphasizes that this ability is only fully exploited when consumers actively search for alternatives and review information on them. It is therefore not enough that there is easy access to alternatives, consumers/users need to take deliberate steps to access alternatives.

¹⁸⁵ T. Mukhopadhyay, U Rajan, R. Telang ‘Competition Between Internet Search Engines’ (October 15th 2000) Carnegie Mellon University, Pittsburgh p 22

¹⁸⁶ See J G Hazan ‘Stop Being Evil: A proposal for Unbiased Google Search’ (March 2013) 111 *Michigan Law Review* 789, 814.

hence evaluations of their own.¹⁸⁷ There is a risk that in attempting to find a potentially better product, time is wasted.¹⁸⁸

In the context of search engines, the cost of switching to a different one is therefore not zero, but it is the potential of wasted time.¹⁸⁹ Even though Google's CEO Eric Schmidt has stated, like Bork and Sidak have indicated in their paper, that switching is easy.¹⁹⁰ However, in the digital world the click away can be considered as a waste of time. In fact it is not simply a click away. Users may very well have to click on the URL box and type in a URL before they can arrive at a different search engine site. Studies have shown that the two most commonly used methods of navigation are through hyperlinks and the back button.¹⁹¹ Similar studies have then gone on to specifically show that navigation through typed in URLs formed a very small portion of navigation on web browsers.¹⁹² They would account for no more than 3% of navigation.¹⁹³ This could very well clearly indicate that users view navigation via hyperlinks and back buttons as much easier than typing URLs.¹⁹⁴ This makes the idea of competition being 'only' a click away much weaker.

¹⁸⁷ Daniel A. Crane, 'Search Neutrality and Referral Dominance' (2012) 8 JCL & Econ. 459, 467

¹⁸⁸ Edward Cartwright, *Behavioural Economics* (Routledge London/New York 2011) 28

¹⁸⁹ Ibid

¹⁹⁰ Testimony of Eric Schmidt, Executive Chairman, Google Inc. before the Senate Committee on the Judiciary Subcommittee on Antitrust, Competition Policy, and Consumer Rights (Google, September 21st 2011) <http://searchengineland.com/figz/wp-content/uploads/2011/09/Eric-Schmidt-Testimony.pdf> accessed on 13th February 2014

¹⁹¹ L Catledge & J Pitkow 'Characterizing Browsing Strategies in the World-Wide Web' (*Proc. of the Third International WWW Conference*, Darmstadt, Germany, 1995) 1065

¹⁹² N Milic-Frayling, R Jones, K Rodden, G Smyth, A Blackwell & R Sommerer 'Smartback: Supporting Users in Back Navigation' (*Proc. of WWW 2004*, New York, 2004)

¹⁹³ Ibid

¹⁹⁴ Ibid

An experimental study by Microsoft Research is reflective of general search engine switching behaviour.¹⁹⁵ The research involved two aspects; log-based experiments and data survey.¹⁹⁶ The log-based experiment entailed a total number of 1.1 billion search sessions which took place over a six month period and carried out by hundreds of thousands of users who consented to take place in the experiment.¹⁹⁷ Search sessions would begin with a query entered into one of the major search engines, which in this experiment was Google, Yahoo! or Live Search.¹⁹⁸ It was found that only 4% of all these search sessions involved a switch to a different search engine for the same line of queries.¹⁹⁹ The likelihood of switching increases with the length of the search session; but even then, it was found that within a session of as many as 10 queries the probability of switching was no more than 14%.²⁰⁰ The survey-based research centred on the completed surveys of 488 Microsoft employees.²⁰¹ Although it was found that 70.5% of the survey respondents switched to a different search engine, 66.8% of this group switched only sometimes.²⁰² This indicates that although the majority of users switch between search engines, they only do so rarely in the context of the total number of queries they carry out. This also fits in with the fact that it was found that only 4% of 1.1 billion search sessions involved a search engine switch.²⁰³

The idea that users do not use several alternate services around the same time can also be supported by the theory we saw in section 2.2.1 about how it was the single-homing side that

¹⁹⁵ Ryen W. White & Susan T. Dumais, *Characterizing and Predicting Search Engine Switching Behavior*, presented at the 18th ACM Conference on Information and Knowledge Management (2009); <<https://www.microsoft.com/en-us/research/wp-content/uploads/2016/08/CIKM2009-Switching-fp1012-white.pdf>> accessed on 11th March 2014

¹⁹⁶ Ibid

¹⁹⁷ Ibid

¹⁹⁸ Ibid section 4.1

¹⁹⁹ Ibid

²⁰⁰ Ibid

²⁰¹ Ibid section 3

²⁰² Ibid section 4.2

²⁰³ Ibid section 4.1

would be targeted for a free and innovative service. Since searchers are provided at £0, this theory would support the idea that they are therefore single-homers and therefore stick to one platform. These figures, along with theory on multi-homing, appear to suggest that just because the physical step of switching at first glance is easy, does not mean that actual switching is easy and that it will in fact take place. We have already discussed that the reasons behind this could be brand loyalty, consumer behaviour of saving time and the perception that alternative engines may provide no better result. Given that search engine switching can be argued to be difficult or costly, the same may be said about other high technology areas. Under this narrative for instance, switching between smart phone applications could also be considered difficult given that switching involves a few more steps than switching between search engines (there is the extra step of searching and downloading another application which also take more time than switching between search engines on a web browser).

Another question is whether switching from one search engine to another actually yields any positive results.²⁰⁴ This was reflected in the amount of time elapsed with no activity after inserting the query into the new search engine.²⁰⁵ A period of inactivity for more than 30 seconds would indicate that the results on the new engine were useful and therefore the switch led to desired results.²⁰⁶ However what was seen mostly was that after the new search engine switch, there would be more activity and clicks that indicated that the user was still trying to find the desired answer to his/her query.²⁰⁷ This provides credence to

²⁰⁴ Ibid

²⁰⁵ Ibid

²⁰⁶ Ibid

²⁰⁷ Ibid

Patterson's statement that many users may in the long term stick to a particular search engine because they think that other search engines are unable to perform any better.²⁰⁸

It appears from these studies that clicking to a different website for information is considered, not only time consuming, but also potentially fruitless in the context of internet search.²⁰⁹

Hence an internet search engine with a very large share of the market and has already been present in the market for a long time will make it difficult for new competitors to enter due to the propensity of consumers to stick to a particular search engine; hence switching costs can reasonably be considered high.

The EU Commission's view of low switching costs may therefore be limited. The theory on the high switching costs with regards to search engines can also similarly reflect high switching costs when it comes to free social networking and communications applications. If users perceive the switching cost to be high with regards to search engines, it is certainly understandable how it can be high in social networking where users have invested time and effort in building profiles with information and pictures.

4.2.3.2 Consumer Perception and Switching

As we have seen above, consumer perception plays an important role in the realities of switching between search engines; but this can also be reflective of its role in other high

²⁰⁸ Mark Patterson 'Google and Search Engine Market Power' [2013] Harv JL & Tech available at <http://jolt.law.harvard.edu/assets/misc/Patterson.pdf> accessed on 16 September 2017

²⁰⁹ T Mukhopadhyay, U Rajan & R Telang 'Competition between Search Engines' (2004) Proc. HICSS 4

technology areas such as smartphone applications. Even though these realities have not been considered so much in competition cases and investigations, we see that generally consumer behaviour is considered in other areas of law.

Some of the most relevant cases would be found in trademark cases. In the case of *Cosmetic Warriors Limited, Lush Limited v Amazon.co.UK Limited, Amazon Eu Sarl*²¹⁰ consumer behaviour and perception was a major determinant in the case. Lush never sold their products on Amazon, yet Amazon's software would allow words and phrases like 'lush' and 'lush bath bomb' to pop up in a drop down list when someone typed 'lu' as Lush's competitors had purchased 'lush' as a keyword for their own rival products.²¹¹ Lush complained that this was an unfair use of their trademark as competitors' products appeared when the trademarked phrase was clicked and some, but not all, of their competitors' ad links had the word 'lush' written on them.²¹² The judgment stated that there was no infringement to be found as consumers perceived that shopping search engines including Amazon would display rival links despite the fact that they clicked on a trademarked word such as lush.²¹³ Hence, although there was a clear use of the trademark by Lush's competitors to lead searchers to competitors' products, due to the average searcher's perception of the way online search works, there was found to be no infringement of the trademark directive 2008/95/EC.²¹⁴

²¹⁰ *Cosmetic Warriors Ltd and another v Amazon.co.uk Ltd and another* [2014] EWHC 181 (Ch)

²¹¹ *Ibid*

²¹² *Ibid*

²¹³ *Ibid*

²¹⁴ This was also specifically confirmed previously in the C-236/08 *Google France Sarl v Louis Vuitton Malletier SA* [2011] Bus. L.R. 1 case where keyword advertising was considered in the context of the trademark directive; keyword advertising such as those used by Lush's competitors would not cause infringement as long as their advertisements clearly did not lead them to believe that the product they were selling belonged to the company whose name was typed in the search engine.

In a similar case in the UK (*Interflora Inc v Marks & Spencer Plc*), the Court of Appeal even reversed a lower court's decision; the lower court had decided that there was a risk of confusion between brands as the competitor had bid for the claimant's brand as a search keyword that linked up to its own products; again it was emphasized that there was no such risk of confusion as the average internet user were aware that this is how keywords were used by companies and that such use of keywords was considered fair use.²¹⁵ Hence, if particular consumer behaviour and habits can be taken into consideration in trademark cases, it should also be able to be taken into consideration in competition law cases where it affects the view of whether or not consumers find switching easier.

In comparison to the literature and cases we have considered with regards to consumer behaviour/perception, the EU Commission appears to have considered network effects from a rational economic standpoint only; in other words consumer behaviour/perception has played little to no role in its decision-making. The EU Commission's view assumes that consumers act rationally i.e. they will always switch to alternatives when prices rise, they will always switch in search of a higher quality product at the same price etc. Maurice Stucke has argued that rationality in the context of economics and competition law needs to be relaxed in order to achieve a more dynamic theory of competition.²¹⁶ Rationality can be questioned by aspects of behavioural economics where price is not the only factor determining consumers' choices.²¹⁷ The utility that one can derive from a product or service depends on who else is using the service or the number of others using the service.²¹⁸ Consumers prefer to use technology platforms which are popular, giving them a chance to interconnect with

²¹⁵ See *Interflora Inc v Marks & Spencer Plc* [2014] EWCA Civ 1403

²¹⁶ Maurice E. Stucke, 'Reconsidering Competition' (forthcoming 2011) 81 Mississippi LJ, available at <http://ssrn.com/abstract=1646151> accessed on 16th September 2017

²¹⁷ Edward Cartwright, *Behavioural Economics* (Routledge London/NY 2011) 28

²¹⁸ Maurice E. Stucke 'Behavioral Antitrust and Monopolization' (2012) 8(3) JCL & Econ 545, 554

others.²¹⁹ Such a preference may very well involve the choice of a product/service which is most popular, but not necessarily of the highest quality.²²⁰ In other words popularity, and not quality, allows the consumer network to grow much larger. When this happens the online entity can gain further information from their consumers and understand their preferences, which would subsequently lead to a more tailored service.²²¹

The contention appears to be that a large network based solely on consumers just wanting to stick to what they are used to, could lead to an advantage over other competitors in providing better quality; hence the least a competition authority can do is prevent networks from growing larger through, for example, the potential combining of networks via mergers (this is given the fact that all competition analyses as we have seen aims to ensure there is enough competition in the market). This advantage is a luxury that new entrants in such a market would not have access to and therefore presents a substantial barrier as consumers are unlikely to switch even if a competitor provided a better quality service.²²²

Such arguments from a behavioural perspective are not just theoretical. Phenomena in the search industry, for example, reflect low levels of switching in all forms. For instance, collaboration between Microsoft's Bing search engine and Facebook was still not enough to compete against Google's search engine (which has the largest network in the search market).²²³ The collaboration aimed to enrich the quality of search for both companies.²²⁴ Facebook is able to provide information on its users' likes based on the different Facebook

²¹⁹ Ibid

²²⁰ John Cassidy *How Markets Fail: The Logic of Economic Calamities* (Penguin 2010) pgs 130-131

²²¹ Maurice E. Stucke 'Behavioral Antitrust and Monopolization' (2012) 8(3) JCL & Econ 545, 556

²²² Ibid

²²³ Jenna Wortham 'Microsoft's Bing gets a social lift from Facebook' (*The New York Times* 13th October 2010) <http://www.nytimes.com/2010/10/14/technology/14bing.html> accessed 19 October 2014

²²⁴ Ibid

groups/pages/ads that they like.²²⁵ In turn, Bing can use this to provide search results of higher relevance.²²⁶ Despite the improvement in quality, Bing has struggled to compete with Google on the same level.²²⁷ The reason behind this is that consumers have seen Google as, so to speak, the default search engine which is a reputation gained over years of trust.²²⁸ People use Google without thinking about their other options.²²⁹ Again, this can be grounded in classical behavioural economics theories such as ‘search heuristics’.²³⁰ This concept subscribes to the idea that people will purchase particular items simply because they are used to purchasing those items.²³¹ Consumers are biased in favour of what they are used to and they consider it risky and a waste of time to test out other products²³² which could result in ‘foregone utility’²³³.

Therefore, it may be justified for the EU Commission to take into consideration the perception of internet users when deciding merger cases involving high technology companies. In doing so the EU Commission’s perception of switching costs in the high technology sector may change and it may consider switching costs to be higher due to consumers’ perceptions and behaviours as we have just seen. In that sense it is confusing that the EU Commission views switching costs are low given what we know from the literature.

²²⁵ Ibid

²²⁶ Ibid

²²⁷ Steve Lohr ‘Can Microsoft make you “Bing”?’ (*New York Times* 30th July 2011) <
http://www.nytimes.com/2011/07/31/technology/with-the-bing-search-engine-microsoft-plays-the-underdog.html?pagewanted=1&_r=2&partner=rss&emc=rss> accessed 19 October 2014

²²⁸ Ibid

²²⁹ Ibid

²³⁰ Edward Cartwright *Behavioural Economics* (Routledge London/NY 2011) 28

²³¹ Ibid

²³² Ibid

²³³ Ibid 29

4.2.4 Conclusion

In this section we conclude on network effects as a whole and its effects on the protection of competition. We also consider some literature on network effects generally (as opposed to its three main components we discuss above). Considering the cases and investigations above, in summary it appears as though the presence of network effects is definitely acknowledged, but historically has been considered inconsistently. In the more recent cases, taking the *Google/DoubleClick* and *Facebook/Whatsapp* mergers as examples, it seems that network effects are not considered strong; in the older *Microsoft v Commission* case and the more recent Commission decisions on Microsoft, network effects are considered much stronger and have a negative effect on competition in the sense that they could cause foreclosure.

Having said this, at this juncture it would be apt to consider a specific point made in *Facebook/Whatsapp* which could offer us insight into why the EU Commission treated the older Microsoft cases differently. It stated that neither Facebook nor Whatsapp had a platform on which they could tie or pre-install their service applications and therefore switching costs would be low.²³⁴ The EU Commission explained that it was pre-installation of software that made it very hard for users to switch to alternatives.²³⁵ The EU Commission appears to attempt to present a specific fact to distinguish free high technology cases from the Microsoft operating system cases.

However, there are two reasons that this may not be as convincing as it first seems. Firstly, although Facebook and Whatsapp do not have an operating system platform where they can

²³⁴ *Facebook/Whatsapp* (Case No COMP/M.7217) [2014] paragraph 111 available at http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf accessed on 23rd July 2017

²³⁵

be pre-installed, they still benefit from the power of popularity which we discussed above as part of the literature on behavioural economics. They are therefore, so to speak, must-have applications that actually make switching costs higher for users. This can be explained by another concept in behavioural economics known as the ‘sunk cost fallacy’.²³⁶ This occurs when consumers stick to a product/service simply because they have invested more time and effort on it which cannot be recovered; it would not matter whether there is a higher quality alternative available.²³⁷ Facebook and Whatsapp are applications where people have spent time and effort building profiles and gathering a network of contacts and hence users are influenced by a sunk cost fallacy. For example, if a user who uses Facebook purchases a smartphone, he/she will likely download the application even if there is an alternative pre-installed application; this is because he/she has put in the time and effort in building a Facebook profile and is less likely to want to start from scratch on a new social network. This therefore raises switching costs and the lack of pre-installation is unlikely to create a more level-playing field.

Secondly, it does not explain the EU Commission’s lack of concern for tying and pre-installation of Skype in *Microsoft/Skype*. The EU Commission prior to *Microsoft/Skype* had already dealt with Microsoft tying its browser and media players; it is puzzling that it did not offer a convincing explanation as to why it thought there would be no incentive to pre-install Skype. The EU Commission explained that the reason it did not believe there was this incentive was for the same reasons that Microsoft would have no incentive to degrade the interoperability of Skype with other competing platforms; Microsoft needed Skype to be equally functional and of good quality on all platforms so that the Skype brand could retain

²³⁶ See Maurice E. Stucke ‘Behavioral Antitrust and Monopolization’ (2012) 8(3) JCL & Econ 545, 566

²³⁷ Ibid- The author refers to a study in Hal R Arkes & Catherine Blumer ‘The Psychology of sunk costs’ (1985) 35 Org. Behav. & Hum. Decision Processes 124, 126

its reputation, which in turn would increase the value of Microsoft. However, degradation on alternative platforms and pre-installation/tying on the incumbent platform are two separate issues. Microsoft may not want to degrade quality on competing operating systems, but that does not explain why it would then not want to pre-install it on its own platform. For these reasons pre-installation is not a convincing feature that distinguishes the Microsoft tying cases in terms of explaining the level of switching costs for users.

Therefore in conjunction with our previous discussions, in terms of the comprehensiveness of the EU Commission's substantive arguments we find that it did not take into consideration many important factors that could affect the final outcome of cases. We observed that barriers to entry were high and may not be overcome even by high levels of innovation on the part of potential competitors. This is because of first mover advantages. Lock-ins are likely to occur because of positive feedback loops and network sizes that allow platforms to grow exponentially, motivating users to stay on the same platform. Finally, we saw how behavioural issues mean that switching costs are in fact high; consumers have a propensity to stick to what they are used to. We especially observed this in the use of search engines. None of these crucial aspects were taken into account by the EU Commission in the online technology cases. On the other hand, the truth is that network effects do not always lead to market dominance. Clear examples of this can be found in the area of attempted tipping. Google was unable to create a successful social network,²³⁸ Bing has very small market share despite being associated with Microsoft especially through its web browser Explorer²³⁹ and

²³⁸ Henry Blodget 'Can we please stop pretending that Microsoft's Bing is doing well?' (*Business Insider*, 29 April 2011) accessed 19 June 2017 <<http://www.businessinsider.com/microsoft-bing-losing-billions-2011-4?IR=T>>

²³⁹ Seth Fiegerman, 'Inside the failure of Google+, a very expensive attempt to unseat Facebook' (*Mashable UK* 2 August 2015) accessed on 19th June 2017 <<http://mashable.com/2015/08/02/google-plus-history/#wbdHf.3aJsq1>>

Amazon is relatively much more successful in online retailing than Google shopping.²⁴⁰ But these examples cannot simply be used to dismiss the potential potency of network effects in terms of them providing significant competitive advantages to companies. For example, it may be the network effects benefitting Facebook that prevented Google's social network from succeeding. The main point is that competition authorities must be made aware of these as well in order to get a full picture of the reality of competition in these particular markets.²⁴¹

However, the literature indicates that there is a tension between the argument that online entities gain success via network effects and the argument that they gain success due to innovation.²⁴² In other words some literature argues that it is innovation and the higher quality of particular products that attract consumers, locks them in, prevents them from switching to other lower quality alternatives and therefore raises a higher entry barrier for competitors; technology platforms need to constantly attract attention from users, and in order to do so, must constantly innovate and improve product/service quality.²⁴³ For instance, Sidak and Bork have looked at the concept of manipulated search engine ranking as a form of innovation in favour of consumers, as opposed to a practice that a large search engine can get away with due to network effects. As we have seen though, network effects such as perceived high switching costs on the part of users and lock-in cause consumers to use the same free

²⁴⁰See how Amazon reigns supreme in the online retail sector; Fung Global Retail & Tech 'Identifying E-Commerce Winners: Our Ranking for Western Europe' (*Fung Global Retail & Tech* 2015) <<https://fungglobalretailtech.com/research/identifying-e-commerce-winners-the-fung-global-retail-technology-internet-retailers-ranking-for-western-europe/>> accessed 19 June 2017

²⁴¹ See M Stucke & A Grunes 'Big Data and Competition Policy' (2016 Oxford University Press) 161

²⁴² RH Bork and JS Sidak 'What does the Chicago School teach about internet search and the antitrust treatment of Google' (2012) 8 (4) JCL & Econ 663

²⁴³ See David S. Evans 'Attention to Rivalry among Online Platforms and Its Implications for Antitrust Analysis' (Coase-Sandor Institute for Law & Economics Working Paper No. 627, 2013) 17 available at http://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=1067&context=law_and_economics accessed on 20th September 2017

high technology service; so opponents of Bork and Sidak would argue that due to these network effects, users tolerate the advertisements. They do not see them as an innovation; whereas Sidak and Bork try to argue that the sponsored links/advertisements is an innovation in itself that keeps consumers coming back to use the search engine.²⁴⁴ Sidak and Bork state that Google for example, despite the sheer size of its market power cannot afford to make compromises on search quality by manipulating search results in favour of advertisers who pay them huge sums of money as it would risk losing a lot of users.²⁴⁵

Rather, it has been considered that ranking sponsored links on top or in a particular order enhances the welfare of search engine users especially where there are reserve (minimum) prices associated with higher ranks.²⁴⁶ When advertisers have to pay a minimum to be placed on higher ranks, there is greater chance that the advertisement will be of higher quality to a search engine user in terms of relevance.²⁴⁷

Furthermore, according to Sidak and Bork, the fact that all search engines across the board use search ranking for advertising means that there is an actual demand on the part of users for advertisements and sponsored specialised search.²⁴⁸ In other words, punishing search engines for ranking according to paid advertisements leads to consumer welfare being adversely impacted and anti-competitive effects.²⁴⁹

²⁴⁴ Ibid

²⁴⁵ Ibid

²⁴⁶ S Athey & G Ellison 'Position auctions with consumer search' (2011) 126 QJ Econ 1213 available at <<http://economics.mit.edu/files/7560>> accessed on 20th September 2017

²⁴⁷ Ibid

²⁴⁸ Ibid

²⁴⁹ Mark Patterson 'Google and Search Engine Market Power' [2013] Harv JL & Tech available at <http://jolt.law.harvard.edu/assets/misc/Patterson.pdf> accessed on 16 September 2017

It has also been argued that any form of advertising technology that is more targeted is increasingly good for consumer welfare as it allows the delivery of relevant information about differentiated products that is actually required by the person who experiences the advertising; highly targeted advertising is more efficient and therefore reduces costs and can lead to lower prices.²⁵⁰ Therefore Sidak and Bork similarly consider displaying and prioritizing its specialized search results over other vertical search engines as a ‘product improvement’²⁵¹ and indicate that it is pro-competitive.²⁵² Forcing a search engine to stop its additional specialized search displays would be at the expense of search quality and would dissuade search engines from investing in innovation.²⁵³ Sidak and Bork argue that all other major search engines also display specialised search results on their pages in a similar fashion, which should mean that customers value this type of service; otherwise any search provider could simply remove its display of specialised search and increase the number of users.²⁵⁴ With online entities, lock-in and switching costs are irrelevant and the only reason consumers stick to a particular product/service is because the product is genuinely innovative and therefore beneficial; the argument is that there is a tenuous link between network effects and the growth of a user base.²⁵⁵

²⁵⁰ G Grossman & C Shapiro ‘Informative Advertising with Differentiated Products’ (1984) *Rev Econ Stud* 63, 77-78

²⁵¹ RH Bork and JS Sidak ‘What does the Chicago School teach about internet search and the antitrust treatment of Google’ (2012) 8(4) *JCL. & E* 663

²⁵² *Ibid*

²⁵³ *Ibid*

²⁵⁴ RH Bork and JS Sidak ‘What does the Chicago School teach about internet search and the antitrust treatment of Google’ (2012) 8(4) *JCL. & E* 663. Also see A Broder ‘A Taxonomy of Web Search’ (2002) 36(2) *Special Interest Group on Information Retrieval (SIGIR) Forum* 3, page 5- The purpose behind web search is either navigational (to find the URL of a particular website), informational (to acquire information that may be spread amongst several web pages) or transactional (finding pages where further information can be retrieved). There is no mention of viewing advertisements. See also B Jansen, D Booth & A Spink ‘Determining the Informational, Navigational and Transactional Intent of Web Queries’ (2008) 44 *Info. Processing & Mgmt* 1251- Over 80% of web queries are informational in nature.

²⁵⁵ Stefan Stremersch ‘Indirect Network Effects in New Product Growth’ (2007) 71(3) *J Marketing* 52, 68

This argument can be questioned however. When describing advertisements as a burden, Randal Picker used the example of television channels stating that commercial breaks on a channel could not to be a good idea for the quality of service or a benefit to the viewers.²⁵⁶ He argues that interrupting a scheduled programme, indubitably, would not improve the quality of the programme and the viewer experience.²⁵⁷ A testament to this notion is the fact that ad avoidance technology is nowadays rife amongst internet users who want to avoid ads; for some consumers advertising clutter is the price of viewing/experiencing content.²⁵⁸ Just because all channels show advertisements does not mean that it is demanded by viewers. Similarly, just because all search engines allow advertisements does not mean that it is demanded by consumers.²⁵⁹ Hence, the ranking of sponsored links is not seen as an innovation by consumers but is rather an encumbrance. Looking at Sidak and Bork's literature, one can conclude that it would still be inappropriate to rule out that many consumers stick to a particular technology due to network effects. When one considers consumer behaviour and perception (as we have done in the previous sections), the reality of the impact of network effects on preventing consumers from switching to alternatives is all the more likely, leading to a reduction of competition/competitors in the market.

Stronger recognition of the effect of network effects in the context of mergers such as that of Google and Doubleclick has actually been given encouragement by a dissenting authority in

²⁵⁶ Discovery Channel Documentary on Google <http://www.youtube.com/watch?v=tooR9K4LUDg>

²⁵⁷ Ibid

²⁵⁸ See S Anderson & J Gans 'Platform Siphoning: Ad-Avoidance and Media Content' (2011) 3 Am. Econ. J. Microeconomics 1

²⁵⁹ See David S Evans 'How catalysts ignite: the economics of platform-based start-ups' in Annabelle Gawer (ed) *Platforms, Markets and Innovation* (Edward Elgar Publishing 2009) 105- Advertising can be considered a negative indirect effect which is a negative externality which is dealt with by providing good content. In other words the advertisements are made tolerable by the redeeming quality of the content the user experiences.

the United States. In general, the EU Commission's analysis was limited to the relationship between Google as an advertisement platform and Doubleclick as an ad serving technology platform. Former FTC Commissioner Pamela Jones Harbour disagreed with this sort of analysis.²⁶⁰ She was the one dissenting individual on the panel overlooking the Google/Doubleclick merger in the United States.²⁶¹ She advocated a market for 'data for behavioural advertising'²⁶² as a more appropriate market for investigations into large online companies²⁶³ By not doing so one would be ignoring all the other data collected by such far-reaching companies from its other products and services and its then subsequent ability to combine data effectively to provide a more tailored/targeted service.²⁶⁴ The data for behavioural advertising so to speak is an important aspect of what allows the network effects to occur. For example, data from search engines can benefit the advertising side in the context of highly targeted advertising and it can make complementary products increasingly suited to customers' desires.²⁶⁵ This could potentially lead to a lock-in effect, giving such companies the ability to abuse their market power. In such a market as described by former Commissioner Harbour, online entities with so many users would obviously have massive market share and would reflect the realities of how online data is used.

²⁶⁰ See P Harbour & T Isa Koslov 'Section 2 in a Web 2.0 World : An expanded vision of relevant product markets' [2010] 76 Antitrust LJ 769 and J Johnson 'Targeted Advertising and Advertising Avoidance' (2013) 44 RAND J. Econ. 128 which explains annoying advertising on search engines as a cost that equals the benefit of using a search engine; so to speak, it is tolerated in the context of the gains made from using a search engine.

²⁶¹ Ibid

²⁶² Ibid

²⁶³ Ibid

²⁶⁴ Ibid

²⁶⁵ For instance, if a search engine also owns a video streaming site, it can pull out behavioural information from the search engine site on a user and put forward his/her preferences on the video streaming site, making it a much more useful service. The more people using the search engine, the more behavioural information the video streaming site can receive and readjust to make their video streaming site more relevant. This is clearly a network effect as the more people joining leads to more value for the video streaming site.

However, there is a danger also that this is a limited way of showing a company's power. For instance, a blogging website would also have a massive amount of data, and in Commissioner Harbour's market its data would also have to be included. But this would indicate that a blogging site presents a search engine with constraints in the market for, as a possible example, search. However, the reality is that a blogging site does not present such a threat. Both entities probably have the same amount of behavioural data on its vast users, but the two entities have become successful in using that data in different manners. So such an expansive view may have the same effect of making it incorrectly seem that a company such as Google has many more competitors than it really does.

We conclude that the arguments surrounding network effects are inconsistent and limited. Network effects definitely showcase a strong presence in the free high technology industry and therefore have a real ability to cause foreclosure and affect competitors adversely. In scrutinizing the arguments surrounding network effects we also come back to the understanding that competition analysis in these cases very much relate to considering the level of competition in the market.

Network effects are a part, amongst other parts, of the substantive analysis which falls under the 'abuse of dominance' test and 'significant impediment to effective competition' narratives. There are other arguments that are also considered in determining anti-competitive effects. We look at these other arguments in the next section. We next consider the market share argument.

4.3 The ‘Market Share’ argument

As we saw in the previously, one of the main purposes of market definition is to enable the calculation of the market shares of a company within a relevant market. Hence, market share is also a very necessary step in determining whether or not a company is dominant. Market share is a common way to establish whether or not there is a dominant position in economics and is considered necessary in competition cases.²⁶⁶ Just like market definition however, it is a factor that focuses on competitive structure. A large market share is taken as an initial strong indication of dominance and any strengthening of it (in merger cases) or abuse of it (in Article 102 cases) is likely to mean foreclosure of competitors and harm to competition.²⁶⁷ As we have already seen in section 2.3, harm to competition is theorized to also mean harm to consumers.

²⁶⁶ See W Landes & R Posner ‘Market Power in Antitrust Cases’ [1981] 94(5) Harv. L. Rev 937, 938. Also see Hedvig Schmidt ‘Market power- the root of all evil? A comparative analysis of the concepts market power, dominance and monopolisation’ in Ariel Ezrachi (ed) *Research Handbook On International Competition Law* (Edward Elgar 2012) 386- market share plays a crucial role in competition analysis. On pages 391 to 392 the author suggests that whilst market share is not the best tool to determine the likelihood of market power and abuse, economists have not suggested any practical alternative to market share.

²⁶⁷ Although officially high levels of market share merely indicate high market power or dominance, in essence it may also indicate abuse. It is a high level of market power (indicated to an extent by market share levels) that is likely to turn a particular practice into an abuse. There are passages in the Enforcement Priorities related to Article 102 TFEU that seem to show this tendency. For example in discussing whether a rebate is an abuse paragraph 36 states as follows: ‘However, if the dominant undertaking is an unavoidable trading partner for all or most customers, even an exclusive purchasing obligation of short duration can lead to anti-competitive foreclosure. Here we see that the proportion of customers, which can also be interpreted as a reference to market share, is a determinant; Also paragraph 37 states ‘Conditional rebates are not an uncommon practice. Undertakings may offer such rebates in order to attract more demand, and as such they may stimulate demand and benefit consumers. However, such rebates — when granted by a dominant undertaking — can also have actual or potential foreclosure effects similar to exclusive purchasing obligations.’ Here we see that it is the existence of dominance itself which is the main factor that turns the rebate into an abuse. Finally also see paragraph 54- ‘In the case of bundling, the undertaking may have a dominant position for more than one of the products in the bundle. The greater the number of such products in the bundle, the stronger the likely anti-competitive foreclosure.’ In other possible way of interpreting this is, where there is dominance over a bundle of products, the more likely the bundling would be considered an abuse.

According to the Horizontal Merger Guidelines,²⁶⁸ the combining market shares of merging companies are considered to be initially indicative of their competitive importance.²⁶⁹ In this section we observe that the importance of market shares varies between particular types of cases which have some facts unique to them. However, these differences in importance levels are not clearly explained and therefore, in general the EU Commission's approach to market share is inconsistent. Before we start analysing the EU Commission investigations, it is important to look at the background legal framework with regards to market share.

Although this thesis does not concern Article 101 TFEU, the influence of market share on general competition law and policy is demonstrated by a relevant guidance notice. The De Minimis Notice applicable to Article 101, for example, exempts agreements involving parties with an aggregate market share of 10% or below from scrutiny under Article 101(1) which, amongst other things, prohibits the restriction of competition.²⁷⁰ This is an increased percentage figure which was previously 5% and the EU Commission now appears quite confident that the 10% threshold is most appropriate.²⁷¹ Furthermore, Commission Regulation (EC) No 2790/1999 states that vertical agreements (agreements between upstream and downstream entities) involving a combined market share of 30% and below will be presumed to have beneficial effects for consumers and the production process.²⁷² However, it has been argued that the market share cannot provide a realistic view of the restraints a

²⁶⁸ Council Regulation (EC) of 5 February 2004 on Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (2004/C 31/03) [2004] OJ C 31/5

²⁶⁹ Ibid Section 14

²⁷⁰ Commission Notice on agreements of minor importance which do not appreciably restrict competition under Article 81(1) of the Treaty establishing the European Community (de minimis) (2001/C 368/07)

²⁷¹ A Scordamaglia-Tousis 'New de minimis communication: "de minimis" and "by object" restrictions of competition law' (2014) JECL & Pract 5(10), 699

²⁷² Commission Regulation (EC) No 2790/1999 of 22 December 1999 on the application of Article 81(3) of the Treaty to categories of vertical agreements and concerted practices- Para 7

company can place on competition; for instance an entity could have a huge market share in its local relevant market but it may not be able to exert power on its supplier, to whom the company is a small client.²⁷³ In terms of mergers, a 50% combined market share and above is usually considered as evidence of a dominant position; however the market share needs to be looked at in conjunction with other factors and therefore cannot be the sole factor determining whether there is a dominant position.²⁷⁴ Therefore market share technically forms a part, among many parts, of the analysis. In some jurisdictions such as Japan, the role of market share has diminished even where merging parties possess very large combined market shares.²⁷⁵

We therefore see that the legal framework consistently emphasizes market share as one of the preliminary factors to be considered and hence an analysis of the EU Commission's approach to it in high technology markets is absolutely necessary. However, despite this, the high market shares in the investigations do not appear important to the EU Commission. This is not because the high market share on its own is innocuous, but because it is considered temporary. This section therefore analyses the market share argument in two parts. It first analyses the consistency and merits present in decisions where the EU Commission has subordinated market share; whereas in the second part they are analysed in cases where market share is considered important. This section concludes that high market share in this industry is in fact a really important factor in that it is a strong determinant of dominance and therefore the EU Commission's analysis is limited.

²⁷³ Evelyne Friedel 'Going Vertical' (2010) *European Lawyer* 11 available at https://united-kingdom.taylorwessing.com/uploads/tx_siruplawyermanagement/EuropeanLawyer_Issue_93_Feb_2010_Analysis_EvelyneFriedel.pdf accessed on 23rd September 2017

²⁷⁴ Section 14 'Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings' (2004/C 31/03) Section 17

²⁷⁵ Koki Arai 'Merger Assessment in Japan: the declining importance of market shares' (2015) 6(5) *JECL & Pract* 337

4.3.1 Commission Investigations that subordinate market share to other factors

At present, the EU Commission appears to believe that the high market shares of companies is not considered a strong determinant of dominance.²⁷⁶ This is in contrast to what we have seen above according to official guidance and Commission notices²⁷⁷ i.e. high market shares are considered as a necessary consideration in competition cases and is important as other factors. Instead, the EU Commission in high technology cases considers that the nature of the industry is such that it negates the effect of any high market shares.²⁷⁸

An important aspect of the nature of the industry the EU Commission considers is innovation. A high degree of innovation present in a market is considered a classic indicator that there is no monopolistic enterprise present in that market.²⁷⁹ In one of its latest relevant decisions, namely the *Facebook/Whatsapp* merger, the EU Commission acknowledged that there would likely be a high combined share between Facebook's messenger application and Whatsapp's communication application of 30-40%; however, because the consumer communications applications industry is innovative in the sense that it is fast-growing and characterized by high numbers of entry by other start-up entities the EU Commission considered that any

²⁷⁶ *Facebook/Whatsapp* (Case No COMP/M.7217) [2014] available at http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf accessed on 23rd July 2017

²⁷⁷ For example, 'Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings' (2004/C 31/03) & Commission Notice on agreements of minor importance which do not appreciably restrict competition under Article 81(1) of the Treaty establishing the European Community (de minimis) (2001/C 368/07)

²⁷⁸ See Commission Investigations such as *Facebook/Whatsapp* -Case No COMP/M.7217 and Case No COMP/M.4731 – *Google/ DoubleClick*

²⁷⁹ D Wall 'Beyond Market Share- Strategies for the High Market Share Firm' (1991) 6(1) *Antitrust* 24,28

calculated market shares would be fleeting.²⁸⁰ Therefore the market share in this type of industries does not indicate any potential serious damage to competition.²⁸¹ Economics Professor Mika Kato describes such types of market share as involving transitory market power.²⁸² She is a proponent of the notion that market share can be temporary depending on the circumstances of the industry and that industries involving higher levels of transitions should not be of concern to competition/anti-trust enforcement agencies.²⁸³ However, she states this without eliminating the importance of market share completely; market share should still play a role in the sense that industries with higher amounts of transitions should require a relatively more significant market share to warrant competition investigations.²⁸⁴ Hence, it is still safe to assume that market share should have a significant role in high technology cases and therefore it needs to be approached both consistently and correctly especially given how high market shares can be in search and social networking.

However, the EU Commission at times actually seems uncertain as to the role of market share. There appears to be some subtle inconsistencies in the EU Commission's position towards market share within the same case. This is seen in its analysis of the concern that Facebook would gather data from Whatsapp users' communications and gain a significant advantage in acquiring it for the purposes of advertising.²⁸⁵ This concern was dispelled, however, because of the potency of the large market share of other entities.²⁸⁶ A change in

²⁸⁰ *Facebook/Whatsapp* (Case No COMP/M.7217) [2014] paragraph 96 available at http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf accessed on 23rd July 2017

²⁸¹ *Ibid*

²⁸² Mika Kato 'Transitoriness of market power and antitrust activity' (2010) *JCL & Econ* 6(2), 393, 409

²⁸³ *Ibid*

²⁸⁴ *Ibid*

²⁸⁵ *Facebook/Whatsapp* (Case No COMP/M.7217) [2014] paragraph 5.3.2 available at http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf accessed on 23rd July 2017

²⁸⁶ *Ibid* para 5.3.2

privacy policy would likely cause a large portion of Whatsapp's clientele to switch away from the application.²⁸⁷ Should such a policy change occur, Facebook would still only have access to a small portion of available data for advertising compared to companies like search engines which are in possession of a much larger amount of data.²⁸⁸ The EU Commission appears to indicate here that it believes scale and market share are important matters in this particular industry; in other words had a dominant search engine been under investigation instead, there would be a much more dire concern about anti-competitive behaviour due to their larger control over data giving it a significant competitive advantage.²⁸⁹

In fact, previously in 2008 even in the Microsoft and Yahoo! Search business merger decision, data appeared to be seen as a precious commodity by the EU Commission; it suggested that should the merger between the search businesses of the two parties cause prices for advertisers to go up, the effect of the price rise would be negated by higher returns.²⁹⁰ This would be enabled by the larger amount of data from the combined databases of the two parties (as we observed in the previous section on network effects, it can be argued that larger databases allow for better targeted advertising).²⁹¹ In turn, being in possession of larger amounts of data would mean a larger market share. This argument comes into direct conflict with the notion that this particular type of industry entails fleeting market shares. Under that narrative it should not matter that Google has a larger share in the data market as the nature of the industry (fast paced nature) renders that larger share temporary.

²⁸⁷ Ibid para 5.3.2

²⁸⁸ Ibid para 5.3.3

²⁸⁹ *Microsoft/Yahoo! Search Business* (Case No COMP/M.5727) [2010] paragraph 200 at http://ec.europa.eu/competition/mergers/cases/decisions/M5727_20100218_20310_261202_EN.pdf accessed on 4th February 2015

²⁹⁰ Ibid

²⁹¹ Ibid

The aforementioned analysis demonstrates that although the EU Commission starts off with the narrative of market share being a weak determinant, it simultaneously hints at its importance; this is arguably an inconsistency in its approach which is not explained or justified.

Despite the inconsistencies seen above, observing other cases, one can see how the narrative of fleeting market shares is still strongly subscribed to by the EU Commission. For example, in 2011 the *Microsoft/Skype* merger investigation the EU Commission was of the opinion that the communications applications market of Windows Live messenger and Skype was a fast-changing sector and therefore market shares did not provide a direct indication of dominance.²⁹² The EU Commission referred to the fact that the use of many of the communications applications had shifted away from PC to other platforms where there are other competitors and the making of voice calls are also increasing rapidly.²⁹³ For instance, Skype and Microsoft's Windows Live Messenger may have a dominant position in a narrow market such as that specifically of communications applications on the personal computer, but because a lot of users are now using smartphones that are owned by other companies to communicate using the smartphone's own applications (like Facetime for Apple iPhone), there is much more competitive pressure despite their dominance on the PC.²⁹⁴ Such a constantly changing environment makes it difficult to define the market which subsequently

²⁹² *Microsoft/Skype* (Case No COMP/M.6281) [2011] paragraph 78 at http://ec.europa.eu/competition/mergers/cases/decisions/m6281_924_2.pdf accessed on 5th February 2015

²⁹³ Ibid- paragraphs 70-71

²⁹⁴ Ibid- paragraphs 101-102

makes it very hard to calculate market share in the first place; market share appears to therefore be unreliable according to the EU Commission.²⁹⁵

Facebook/Whatsapp and *Microsoft/Skype* therefore demonstrate how large market shares do not matter as much according to the EU Commission. However, the EU Commission also considers the presence of low market shares in high technology companies not to be directly indicative of a lack of market power; hence, staying congruent with the narrative that generally market shares, high or low are not much of a great determinant. For example, going back to the *Microsoft/Yahoo!Search Business* merger investigation in 2010, the EU Commission was generally consistent with this attitude towards market share even where the merging companies' combined market share was very low and was to a level which would not cause any concerns. The combined market share of Microsoft and Yahoo! in search was significantly low compared to that of Google; but the EU Commission went on to state that it was still necessary for them to carry out a full assessment of the merger in the context of competition because the companies in this sort of industry competed on innovation and quality and therefore indicated again that market share, regardless of being low or high, is not reflective of dominance.²⁹⁶ However, at the same time, the EU Commission did not dismiss the relevance of market share completely; some have interpreted the low market share to be a

²⁹⁵ See Morten Broberg 'Improving the EU Merger Regulation's delimitation of jurisdiction: re-defining the notion of Union dimension' (2014) 5(5) JECL & Pract 261, 266.

²⁹⁶ *Microsoft/Yahoo! Search Business* (Case No COMP/M.5727) [2010] paragraph 119 at http://ec.europa.eu/competition/mergers/cases/decisions/M5727_20100218_20310_261202_EN.pdf accessed on 4th February 2015

strong determinant of the final decision in the investigation.²⁹⁷ In fact it clearly stated that the low market share, specifically of Yahoo! was indicative of its low levels of innovation.²⁹⁸

One of the reasons mentioned to justify allowing the merger to go ahead was the fact that Yahoo! as a search engine was experiencing receding market share meaning that they were becoming a weaker competitor.²⁹⁹ This was despite the fact that before this statement the EU Commission also stated that Yahoo! was likely to be innovative as they had regular increases in revenues.³⁰⁰ The EU Commission having considered the evidence before them from their market investigation concluded that the reason why both Microsoft and Yahoo! were unable to compete with Google was because of their lack of scale.³⁰¹ In other words, Google had a significantly larger amount of consumers and therefore had more feedback to loop into their search engine to offer a better quality service. In particular, the EU Commission considered the fact that the traffic received by the merging parties was considerably lower than that of Google and this was something that a low market share reflected.³⁰²

Hence, whilst still maintaining that market share is not important in such industries, the EU Commission contradicts itself in this matter. Given the nature of the justifications that the EU Commission made, it appears that the merger would have been repudiated had the market shares of the merging parties been significantly larger. Larger shares would mean both companies together would have larger scale and would be effective competitors against a

²⁹⁷ T Vecchi, J Vidal & V Fallenius 'The Microsoft/Yahoo! Search business case' (2010) 2 EC C.P.N. 41, 48

²⁹⁸ *Microsoft/Yahoo! Search Business* (Case No COMP/M.5727) [2010] paragraph 130 at http://ec.europa.eu/competition/mergers/cases/decisions/M5727_20100218_20310_261202_EN.pdf accessed on 4th February 2015

²⁹⁹ *Ibid* paragraph 147

³⁰⁰ *Ibid* paragraph 144

³⁰¹ *Ibid* paragraph 154

³⁰² *Ibid* paragraph 153

much larger search engine without the merger. But in this case the merger was allowed to take place so that the new entity could in fact increase their market share so that there can be more effective competition in the market.

As far back as the 1980s, John Temple Lang pointed out that the EU Commission is willing to accept joint ventures where they bring a strong ‘counter-weight’ against a current dominant player.³⁰³ Hence, it appears that the EU Commission did view that market share is a strong indicator of power. In addition, many concerned entities who took part in its investigations welcomed a merger between Microsoft and Yahoo!’s search business as it would create competition against Google, allowing advertisers a better bargaining position in general.³⁰⁴

Despite the importance of scale and hence market share indicated above by the EU Commission in *Microsoft/Yahoo!*, prominent academics such as Geoffrey Manne have argued that success from innovation in the digital world is said to be highly dependent on the individual company’s ability to make better use of the information that is available to it; the actual amount of information or in other words scale involved is irrelevant.³⁰⁵ A lot of online entities such as Twitter and Pinterest also started off with no scale whatsoever to finally gain a large user base.³⁰⁶ Hence, we also see that there is academic literature that also supports

³⁰³ John Temple Lang *European Community Antitrust Law and Joint Ventures Involving Transfer of Technology* in 1982 FORDHAM CoRP. L. INST. 203 (Barry Hawk ed., 1983) 244- 252

³⁰⁴ *Microsoft/Yahoo! Search Business* (Case No COMP/M.5727) [2010] paragraphs 235 and 237 available at http://ec.europa.eu/competition/mergers/cases/decisions/M5727_20100218_20310_261202_EN.pdf accessed on 4th February 2015

³⁰⁵ G. Manne & B. Sperry ‘Debunking the Myth of a data barrier to entry for online services’ (*Truth on the Market*, 26th March 2015) available at <http://truthonthemarket.com/2015/03/26/debunking-the-myth-of-a-data-barrier-to-entry-for-online-services/> accessed on 23rd September 2017

³⁰⁶ Ibid

the notion that market share (indicating the size of a company's clientele) is not a key determinant as it is always under pressure from other innovative competitors. However, it cannot be denied that large scale has some contribution towards being able to provide a better quality service; for example, the more data available, the more algorithms have to work with in order to improve themselves.³⁰⁷

The notion that market share does not play an important role was perpetuated in a later case as well. For example in the *Microsoft/Skype* merger investigation the EU Commission repeated and emphasized the theme of market share providing a limited account in this particular industry.³⁰⁸ Both Skype and Microsoft would have a post-merger combined market share of around 90% in the market for video calls.³⁰⁹ However, the EU Commission did not view this as a menace to competition for various reasons, some particular ones which should be explored.³¹⁰ The EU Commission cited that other companies such as Facebook and Google were entering this particular market and that they would potentially be effective competitors despite their low market shares. This is because these two companies specifically have huge networks and a strong brand and reputation.³¹¹

³⁰⁷ See Maurice Stucke & A Grunes *Big Data and Competition Policy* (OUP Oxford 2016) 45- the authors refer to Lukas Biewald, co-founder and CEO of CrowdFlower who commented that a lot of large tech players reveal a lot of their algorithms without worrying about giving away secrets. This is because it is the large amounts of data that enable effective targeting and not the algorithm itself. Also see Ariel Ezrachi & M Stucke *Virtual Competition- The Promise and Perils of the Algorithm-Driven Economy* (Harvard University Press 2016) 16

³⁰⁸ *Microsoft/ Skype* (Case No COMP/M.6281) [2011] paragraph 78 at http://ec.europa.eu/competition/mergers/cases/decisions/m6281_924_2.pdf accessed on 5th February 2015

³⁰⁹ Ibid- para 101

³¹⁰ Ibid

³¹¹ Ibid- para 125

Economists Timothy Tardiff and Dennis Weisman in fact argue that modern high technology companies, despite having large market shares, do not possess much market power because they are restrained by the fact that most of their competitors are engaged in multiple markets, some in which they may be dominant; competitors in such markets always have the potential to leverage their market power in other areas to prevent any abuse by the concerned monopoly³¹² and potentially cause foreclosures amongst competitors.³¹³ This economic view of tipping power into other markets is seen in some of the statements by the EU Commission; the EU Commission appears to be of the opinion, in this particular investigation, that Facebook and Google have the ability to tip their current customers into any market (such as that of video calls) and be effective competitors due to their large networks and strong brand recognition. Ironically, as seen in the discussion regarding the *Facebook/Whatsapp* merger, such arguments do not hold the same degree of importance when these companies are the ones being investigated. *Facebook/Whatsapp*, as seen, indubitably possess large networks and brand recognition which could potentially lead to foreclosure of competitors post-merger through, for example, making Whatsapp tip it's consumers into Facebook and vice versa;³¹⁴ but these did not prevent the EU Commission from allowing the merger or imposing

³¹² T Tardiff & D Weisman 'The Dominant Firm Re-visited' (2009) JCL & E 5(3) 517,519

³¹³ See Michael Whinston 'Tying, foreclosure and exclusion' (1990) 80 Am Econ Rev 837-859- Bundling may allow a monopolist to extend power in to a complement market. See also D Carlton & M Waldman 'The strategic use of tying to preserve and create market power in evolving industries' (2002) 33(2) Rand J Econ 194-220

³¹⁴ Although, a couple of years after the *Facebook/Whatsapp* decision, the EU Commission fined Facebook for misleading the EU Commission by saying that they did not have the technical capability to match Facebook and Whatsapp accounts. It was found that in fact they did. This seems to reflect a clear ability to bundle services, making either Whatsapp or Facebook more attractive as they can easily be linked to each other, making information flows between the two applications easier (lets say for example, a new user could find it much easier to open a Whatsapp account by simply importing information from facebook, including profile pictures on to the new Whatsapp account). This would clearly allow the companies to extend market power into complement markets. However, whilst the EU Commission did fine Facebook, they clearly stated that their decision on the *Facebook/Whatsapp* merger would not change regardless of the fact that they now know Facebook in fact had the ability to extend market power. This goes to show that the EU Commission still appears to turn a blind eye to real potential increases in market power and therefore continues to remain inconsistent. See European Commission 'The European Commission has fined Facebook €110 million for providing incorrect or misleading information during the EU Commission's 2014 investigation under the EU Merger Regulation of Facebook's acquisition of WhatsApp' (European Commission- Press Release, 18 May 2017) <http://europa.eu/rapid/press-release_IP-17-1369_en.htm> accessed 18th May 2017

commitments on the merging parties. This could be seen as an instance where the approach adopted by the EU Commission departs from its standard position according to which high market shares are less likely to indicate market power in the free high technology industry operating online. This may be interpreted as an inconsistency that creates legal uncertainty.

Overall, whilst it appears that the EU Commission provides an explanation for its stated conclusion that market share is not a strong indicator of market power, its indication that it is in *Microsoft/Yahoo! Search Business* can make one question whether this stated conclusion is a fully genuine opinion of the EU Commission. This sense of inconsistency becomes magnified in the next section where we discuss situations where the EU Commission embraces market share as a strong indicator of market power.

4.3.2 Commission Investigations embracing market share as a significant factor

Some high technology market cases definitively reflect the view that market share can be a strong determinant of a case and is seen as a threat to competition. In the investigation of the merger between Boeing and C-Map, from a horizontal point of view, the combined market share of both companies put together was too small to cause concern.³¹⁵ The EU Commission's decision in this case was short as there was no need for any extensive investigations given the very low level of market shares. In this investigation there was no mention of innovation and quality as being the main drivers of competition as opposed to market share. After all, one of the main products of concern was software, which by its very

³¹⁵ *Boeing/C-Map* (Case No COMP/M.4395) [2007] available at http://ec.europa.eu/competition/mergers/cases/decisions/m4395_20070116_20310_en.pdf accessed on 23 September 2017

nature allows computer engineers to make huge leaps forward just as those involved in apps such as Facebook and Whatsapp might.

Hence the *Boeing/C-Map* case is an example of where a very low market share immediately leads to the conclusion on the part of the EU Commission that there are no competition concerns. Also as previously seen in the merger investigation of Symantec and Veritas, the fact that a very small market share (less than 10%) would be added to that of Veritas to their combining share in the overlapping market of storage software did not worry the EU Commission.³¹⁶ This was also against the back drop of there being other competitors in the market who were also established.³¹⁷ However, again there was no discussion of the innovation and quality levels of the different competitors as discussed in some of the other cases.³¹⁸ Amongst the different reasons that the merger was allowed to take place, one of the main ones was that the small size of the additional market share was unlikely to affect competition in any significant way.³¹⁹ Of course there may be one fundamental difference from the previous cases considered. Perhaps the reason that innovation was not mentioned in *Symantec/Veritas* and *Boeing/C-Map* was because it is not characterized by fast paced innovation as cases such as *Facebook/Whatsapp* are. In that case, due to the possible difference in facts, there is no inconsistency in the approach of the EU Commission. Where there is less innovation, market share plays a more significant role than when an industry involves more innovation. However, in the next paragraph we will ironically see another

³¹⁶*Symantec / Veritas* (Case No COMP/M.3697)[2005] paragraphs 22-24 available at http://ec.europa.eu/competition/mergers/cases/decisions/m3697_20050315_20310_en.pdf accessed on 24th July 2017

³¹⁷ Ibid

³¹⁸ Ibid

³¹⁹ Ibid

case where market shares did play a much more significant role where innovation was of a high level.

In the 2004 Commission investigation into the joint venture between ARM, Giesecke & Devrient and Gemalto high market shares led to major concerns.³²⁰ This case involved a high technology market which shares similar characteristics with digital companies such as massive network effects and fast growth in terms of innovation. ARM had a market share of between 90% and 100% in the relevant market of licensing intellectual property rights over their semi-conductor designs.³²¹ Giesecke & Devrient (G&D) and Gemalto are companies involved in the software stage and can produce specific type of security software that is well-suited to ARM's semiconductor designs.³²² It was found that ARM's superior market share would enable it to favour G&D and Gemalto; ARM, as a result would likely intend to license an inferior version of specifications to the competitors of G&D and Gemalto, allowing them to produce a much more effective product.³²³ As a result of this the parties of the joint venture had to officially commit to keep an open platform so that the parties' competitors would have access to equal information allowing a level playing field.³²⁴ We therefore see a case where innovation and growth were major characteristics; but these characteristics were not considered impactful enough to reduce the role of a large market share in the assessment of competition concerns. The approach the EU Commission takes here may be said to have departed from their previous one. In the next paragraph we consider another case where the

³²⁰ *ARM/ Giesecke & Devrient/ Gemalto* (Case No COMP/M.6564) [2012] paragraph 145 available at http://ec.europa.eu/competition/mergers/cases/decisions/m6564_20121106_20212_2779342_EN.pdf accessed on 23rd September 2017

³²¹ *Ibid* paragraph 161

³²² *Ibid*

³²³ *Ibid*

³²⁴ *Ibid* para 191

EU Commission adopts this approach of allocating more importance to market share despite the presence of innovation in the relevant market.

The more recent merger investigation into and decision with regards to Intel and McAfee is a case that also exhibits high technology characteristics such as powerful network effects. Intel possessed a noticeably large market share in the x86 Central Processing Unit (a type of processing unit widely used in personal computers, laptops, tablets and smart phones) market in the eighty to ninety percentage figure range.³²⁵ The EU Commission acknowledged clearly that this level of market share reflected immense seller power on the part of Intel and that Intel is a must have component. This allows them to have the ability and intention to bundle their processing units with McAfee's security software, which is only second to Symantec in terms of market share in the market for security software. The EU Commission viewed this as a threat to competition and demanded certain commitments on which the merger would be authorized; for example Intel had to commit to releasing full interoperability information to McAfee's competitors downstream. It appears as though market share is a very important factor and has not been subordinated to arguments regarding innovation and quality. This is surprising given that these companies producing hardware also invest significantly in research and development just like the digital companies do.³²⁶ Hence, the markets that concern companies like Intel and McAfee are also potentially characterized by innovation that is possibly fast-paced. But unlike *Facebook/Whatsapp*, market share is still considered a very powerful indicator of dominance.³²⁷

³²⁵ *Intel/McAfee* (Case No COMP/M.5984) [2011] at http://ec.europa.eu/competition/mergers/cases/decisions/m5984_1922_2.pdf accessed on 10th March 2015

³²⁶ *Ibid*

³²⁷ It is important to note however, that there have been other types of technology cases where there was very high market share, but that was not the main reason behind the merger being required to be conditional. In some

We therefore observe that there are cases concerning companies showing similar characteristics to that of free high technology markets; but high market shares are considered a major concern and determinant of the outcome in other technology cases but not in free high technology ones. For example, if ARM and Intel were said to have been intending to reduce compatibility with other platforms post-merger, by that logic Microsoft could have intended to do the same with competitors of Skype. We of course saw that the EU Commission explained that Microsoft would not do this because it needed Skype to have a great deal of value by being compatible on several other platforms. But this could be said the same for Intel for example. The more platforms compatible with McAfee, the more value for McAfee which in turn would mean more value for Intel. However, this argument was not seen in *Intel/McAfee*.³²⁸ In the absence of a clear explanation on the part of the EU Commission distinguishing free high technology cases, the EU Commission's approach appears inconsistent.

cases it is merely coincidental that high market shares and serious concerns with regards to the concerned merger are simultaneously present. For example, in 2013, the EU Commission dealt with a technology case that entailed similarly high market shares. In its decision with regards to Syniverse and MACH the EU Commission allowed the merger; however, only on condition of a divestment (COMP/M.6690—Syniverse/MACH, Commission decision of 29 May 2013. Summary decision at: OJ C 60, 1.3.2014, pp 7–16). Collectively, in the market for data clearing services, the two parties possessed a market share high enough to the extent that it would create a virtual monopoly. Economists, however, have pointed out that this case in fact reflects the diminishing role of market shares and the increasing importance of simply having contestability in the market (G Goeteyn, P Smith & S Ashall 'Away from market shares? The increasing importance of contestability in the EU Competition Law Cases' (2015) J.E.C.L. & Pract. 6(3), 197-199). They point out that the EU Commission was more concerned that the remaining smaller competitors were not a credible alternative for the merging parties' larger customers, not because of their smaller shares in the market, but because they did not provide the same specifications required by those larger customers. Hence, there may not always be a causal link between high market shares and the EU Commission's desire to prevent a merger; in such cases it appears the presence of high market share only plays a nominal role amongst the many roles of other factors.

³²⁸ *Intel/McAfee* (Case No COMP/M.5984) [2011] at http://ec.europa.eu/competition/mergers/cases/decisions/m5984_1922_2.pdf accessed on 10th March 2015

4.3.3 Conclusion- The EU Commission's inconsistent approach and the recognition that market share does adversely affect competition

When it comes to free high technology cases the EU Commission maintains the narrative of fleeting market shares. However, it does not appear that the EU Commission is very certain in this concept itself. This is reflected by the inconsistencies in arguments that we observed especially in *Facebook/Whatsapp*³²⁹ and *Microsoft/Yahoo! Search Business*.³³⁰ In *Facebook/Whatsapp* case some of Whatsapp's competitors had very high market shares that presented competitive pressure on Whatsapp. However, the high market shares of Whatsapp and Facebook were considered as fleeting and not a cause for concern. In *Microsoft/Yahoo! Search Business* Google's high market share was considered a potent threat to competition to the point where the joint venture between the two parties' was encouraged to produce a force against the search engine. This high market share argument certainly did not stop the *Google/DoubleClick*³³¹ merger or require stricter commitments from Google in terms of the investigations into its ranking practices. The EU Commission's approach, one could reasonably say is quite inconsistent with its opinions on high market share. If market share really is fleeting in these types of industry, then the market power and threat from Yahoo!'s and Whatsapp's competitors should have been disregarded by that logic.

³²⁹ *Facebook/Whatsapp* (Case No COMP/M.7217) [2014] available at http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf accessed on 23rd July 2017

³³⁰ *Microsoft/Yahoo! Search Business* (Case No COMP/M.5727) [2010] at http://ec.europa.eu/competition/mergers/cases/decisions/M5727_20100218_20310_261202_EN.pdf accessed on 4th February 2015

³³¹ *Google/DoubleClick* (Case No COMP/M.4731) [2008] available at http://ec.europa.eu/competition/mergers/cases/decisions/m4731_20080311_20682_en.pdf accessed on 24th July 2017

By contrast, in the Intel³³² and ARM³³³ cases, the EU Commission is much clearer in its stance on market share. A high market share was seen as a strong indicator of market power. The EU Commission does not offer any reasonable explanation to distinguish the way it treats market power in free high technology cases and these platform cases. The only hint of an explanation comes from the idea that market share in free high technology cases are fleeting. However, it is questionable whether this is a reasonable statement. After all, some of the free high technology sector parties have in fact had a majority market share over a very significant period of time.³³⁴ Again, these inconsistencies are a reminder of legal uncertainty which could leave individuals in the industry unsure as to the legitimacy of their actions.

4.4 Hypothesis; the obscured reason behind inconsistency and lack of merit in the substantive arguments

This is the point where we formulate and justify the thesis' hypothesis. In Chapter 2 we considered the theory behind free high technology and how consumer welfare can be inversely related to competition. We also importantly established that consumer welfare is the main objective that is pursued in competition law. Then, in section 3.2 we looked at how competition analysis is based on the idea of ensuring an appropriate level of competition in

³³² *Intel/McAfee* (Case No COMP/M.5984) [2011] at http://ec.europa.eu/competition/mergers/cases/decisions/m5984_1922_2.pdf accessed on 10th March 2015

³³³ *ARM/ Giesecke & Devrient / GEMALTO/ JV* (Case No COMP/M.6564) [2012] available at http://ec.europa.eu/competition/mergers/cases/decisions/m6564_20121106_20212_2779342_EN.pdf accessed 9 December 2017

³³⁴ See for example Jason Matthews, 'What are Google's Competitive advantages?' (*Turbofuture*, 29 April 2016) available at <<https://turbofuture.com/internet/What-are-Googles-Competative-Advantages>> accessed 29 August 2016 Also see Pete Kallas, 'Top 15 Most Popular Social Networking Sites and Apps [June 2017]' (*Dreamgrow* May 20 2017) available at <<https://www.dreamgrow.com/top-15-most-popular-social-networking-sites/>> accessed 19 June 2017 If one looks at the top sites, they are names that have been present for significant periods of times (over a decade), Organisation for Economic Co-operation and Development (OECD) 'The Digital Economy' (DAF/COMP(2012)22, 7 February 2013) 7- if a company remains unchallenged for five years, it is likely to be dominant.

the market. Given our knowledge from Chapter 2, this would not have the appropriate outcome for free high technology cases in terms of consumer welfare. However, what we find is that the EU Commission has been allowing free high technology companies to potentially increase their market power; but in doing so, it is using inconsistent and limited rationale. We now look at the findings in Chapter 2 and those in Chapter 3 in conjunction to formulate our hypothesis.

In the previous sections of this chapter a few things have been established;

- a) The protection of competition is the fundamental framework that is used in free high technology investigations. All factors i.e. network effects, market share, innovation etc. are all analysed within the context of their effect on competition.
- b) The EU Commission expresses inconsistent views on the effect of network effects and market share on competition within the same free high technology cases
- c) The literature and the inconsistency in the EU Commission's views show that the EU Commission's main narrative that network effects and market share have very little effect on competition in the free high technology sector is based on a limited view.
- d) The EU Commission clearly treats factors such as network effects, innovation and market share differently in free high technology cases than in those concerning other

types of high technology. In other technology cases,³³⁵ they are seen to have a significant impact on competition.

This concluding section hypothesises that the EU Commission treats the two categories of cases differently because of the fact that the free high technology sector provides highly technical and innovative services that are free to consumers and has a major positive effect on consumer welfare.³³⁶ In other words, regardless of the competition structure in the sector, consumers receive a free service that is innovative. Hence, consumer welfare is inherently high. Therefore, the EU Commission's finding that there is no abuse of a dominant position or that there is a lack of significant impediment to effective competition in free high technology companies appears accurate from a consumer welfare point of view.

However, the EU Commission's reasoning is limited and confusing. This is because it attempts to justify this finding from a competition perspective as opposed to a consumer welfare perspective. Under the 'protection of competition' framework, in order to justify its finding it therefore cannot straight away assess the direct impact on consumers. Instead, it must show that there is no adverse effect on competition, which in turn would indicate that

³³⁵ Note that software such as media players are not actually free, hence they are not free high technologies. See Case T-201/04 *Microsoft v Commission* [2007] ECR II-3619 paragraph 968- Windows media player is not necessarily free of charge. Price of media player is included in the total price of windows operating system (see if u can also find any theories in behavioural economics where when u pay a price for something it makes you want to use it)... also explain that although switching cost is definitely high in complimentary high tech, switching cost is even higher in Microsoft WMP case. See also John Temple Lang 'Comparing Microsoft and Google: The concept of exclusionary abuse' (2016) 39(1) *World Compet* 5, 7-8- the author notes that one of the main differences between Google and Microsoft is the fact that Google is a free platform whilst Microsoft's Window's operating system is not. The cost of an operating system is high and users only upgrade them every few years.

³³⁶ Although the EU Commission has never directly stated that such dominance is good for consumers, it is reflected in, for example, the FTC's statement in its investigations into Google. See Federal Trade Commission 'Statement of the Federal Trade Commission' (FTC file no.111-0163, 3rd January 2013) available at <https://www.ftc.gov/system/files/documents/public_statements/295971/130103googlesearchstmtofcomm.pdf> access on 23rd September 2017- Google's conduct may harm competitors, but not competition and consumers

there is no adverse effect on consumers. Although, in the context of free high technology services, the relationship between competition and consumer welfare is not necessarily, so to speak, directly proportional to each other; they may in fact even be inversely proportional.

This is what we saw in Chapter 2 overall.

Hence, the EU Commission appears to be applying an ‘ends justifies the means’ approach. It believes that the free high technology company’s actions are good for consumers or are at the least not harmful to consumers even where the free high technology company has a dominant position; but because of the ‘protection of competition’ framework the only way it can justify this is to present a narrative that somehow there is no dominant position (hence the argument that network effects and high market share are weak). This has become especially clear where in the other high technology investigations the EU Commission does believe there is a strong dominant position and therefore there is a finding of abuse or impediment to effective competition. However, in these other cases the technology does not come for free for consumers. There is an issue of prices. In the investigations into telephone networks for example, there is a real possibility that prices may rise after a concentration. In the investigations into Microsoft as a platform, the consumer invests a great amount of money in purchasing the hardware and operating system. The platform has complete control over what can and cannot be allowed on the platform. Switching to a different operating system would be expensive.

4.4.1 Two test cases that prove hypothesis; *Microsoft/LinkedIn* and the record fine on Google's practices in comparison shopping service

Up till now we have developed a hypothesis based on previous cases, the latest being in 2014 (*Facebook/Whatsapp*). However in late 2016 and the middle of 2017 there were the *Microsoft/LinkedIn*³³⁷ merger and the Google fine.³³⁸ These cases provide us with a chance to test the thesis' hypothesis. What we will see is that they both confirm it.

Looking at the Microsoft cases side by side provides a convincing inference that supports the hypothesis. We have the interoperability case, the media player case, the browser case, the merger with Skype and finally the most recent merger with LinkedIn.³³⁹ We already know that in the first three situations, the EU Commission found Microsoft to be abusing its dominant position. As mentioned before, none of these relevant services are free and are included in the price of the Windows operating system platform. A more interesting comparison can be drawn between the merger cases however. Both involve a merger with an independent application that was/is dominant in its own relevant markets at the relevant time. We know that the Skype merger was allowed with no conditional commitments. However, with the LinkedIn merger, it was authorized on the basis that Microsoft pledged to never pre-install LinkedIn and integrate it into its Office suite and allow hardware assemblers to have the option not to pre-install the application on to the operating system.³⁴⁰ Why is it that the

³³⁷*Microsoft/LinkedIn*(CaseNo.M.8124)[2016]available at http://ec.europa.eu/competition/mergers/cases/decisions/m8124_1349_5.pdf accessed on 28 August 2017

³³⁸European Commission, 'Antitrust: Commission fines Google €2.42 billion for abusing dominance as search engine by giving illegal advantage to own comparison shopping service'(European Commission Press Release Database 27th June 2017)< http://europa.eu/rapid/press-release_IP-17-1784_en.htm > accessed 28th June 2017

³³⁹*Microsoft/LinkedIn*(CaseNo.M.8124)[2016]available at http://ec.europa.eu/competition/mergers/cases/decisions/m8124_1349_5.pdf accessed on 28 August 2017

³⁴⁰ Ibid paragraphs 403 to 407

possibility of the pre-installation of Skype on the Windows operating system was not a concern for the EU Commission like it was for the pre-installation/integration of LinkedIn? The *Microsoft/Skype* decision justified a lack of concern for pre-installation by stating that there were other platforms such as smart phones where operating systems such as Android and Apple(IOS) pre-installed their own applications for video communications. But it cannot be ignored that in the market for PCs and laptops where the windows operating system is dominant,³⁴¹ there would be significantly less competition and therefore pre-installation should by that logic be a legitimate concern. The difference in treatment of LinkedIn and Skype may, again, be explained by the fact that Skype is a free product and LinkedIn is a service that is not.³⁴² Hence, that is the reason the Skype merger was treated differently from the rest.

Furthermore, whilst on the topic of an operating system like Microsoft's Windows, a few words must be mentioned on the recent initiation of investigations into Google's Android mobile operating system platform.³⁴³ There are no decisions on the investigation at the moment, but it appears from the EU Commission's press release that there is a clear allegation that Google is forcing manufacturers to tie its own applications such as Google search to Android.³⁴⁴ Given what we know about the Microsoft tying cases, it is likely that the EU Commission will eventually outlaw such tying on the part of Google. If this were to

³⁴¹ *Microsoft/ Skype* (Case No COMP/M.6281) [2011] paragraph 148 at

http://ec.europa.eu/competition/mergers/cases/decisions/m6281_924_2.pdf accessed on 5th February 2015

³⁴² It is acknowledged that opening an account on LinkedIn and viewing professional profiles of others is free. But now, the ability to send emails and communicate with others is limited. Details on profile views from others and profile visibility are also limited. Users are required to subscribe to a premium service. After all, the main purpose of a professional social network is to be able to make impact on careers through communication. However, with Skype, all communications which are the purpose of the application are all free.

³⁴³ European Commission, 'Antitrust: Commission sends Statement of Objections to Google on Android operating system and applications – Factsheet' (*European Commission Press Release Database* 20th April 2016) [http://europa.eu/rapid/press-release MEMO-16-1484_en.htm](http://europa.eu/rapid/press-release_MEMO-16-1484_en.htm) accessed 5 June 2017

³⁴⁴ *Ibid*

actually happen, it may initially be argued that our hypothesis is incorrect. This is because Android is a free operating system for all, whilst Windows is not. However, such a conclusion would only be based on a cursory glance at the issues surrounding Android. The products/services in question in this case are the applications that are installed on the Android device.³⁴⁵ In order to install these products/services, manufacturers must enter an agreement with Google and pay a license fee.³⁴⁶ These fees can eventually trickle down to the consumer. Hence, the products/services are not free. Another way to look at it is that consumers purchase a handset and pays the price for a device that has a pre-installed operating system with pre-installed applications. The price includes all these features.

The recent fine on Google for its comparison shopping service is an even starker example supporting the hypothesis.³⁴⁷ Google was imposed with a record fine of over 2 billion Euros for giving its own comparison shopping service priority in user search results.³⁴⁸ The EU Commission appears to have accepted in this situation that Google's dominance in general search could be and is being tipped into its comparison shopping service and consumer behaviour dictates that they will simply use results that are ranked highly and will therefore be locked-in.³⁴⁹ As seen throughout this chapter, these are the type of arguments we saw missing in the other free high technology cases. Why has the EU Commission suddenly accepted the potency of network effects in search to lead to an abuse of dominance?

³⁴⁵ Ibid

³⁴⁶ See Charles Arthur & Samuel Gibbs 'The hidden costs of building an Android device' (*The Guardian* 23 January 2014) < <https://www.theguardian.com/technology/2014/jan/23/how-google-controls-androids-open-source> > accessed on 5 July 2017

³⁴⁷ European Commission, 'Antitrust: Commission fines Google €2.42 billion for abusing dominance as search engine by giving illegal advantage to own comparison shopping service' (*European Commission Press Release Database* 27th June 2017) < http://europa.eu/rapid/press-release_IP-17-1784_en.htm > accessed 28th June 2017

³⁴⁸ Ibid

³⁴⁹ Ibid

A more than reasonable conclusion again is the fact that price comparison services are not free high³⁵⁰ technologies and therefore price is a concern for consumer welfare.³⁵¹ Users of these services ultimately want to find a product to purchase at a price from the service. With regards to the previous Google investigation and commitments, the concern was not only with price comparison services, but more generally with Google's practice of highly ranking its own results for vertical search services that included, for example, reviews of hotels and restaurants.³⁵² Looking at reviews is a free service. In that case the EU Commission was satisfied with Google prioritizing its own vertical search as long as it clearly showed that they were sponsored.³⁵³ But this time, the EU Commission has refused to accept this with the specific category of price comparison shopping service. In other words, we see again, a priced high technology service company being subjected to the argument that they are dominant and the insinuated argument that competition is limited in these markets. Free high technology services on the other hand are not subjected to such a narrative.

³⁵⁰ See Google 'Google Shopping Campaigns' <<https://www.google.co.uk/intl/en/retail/shopping-campaigns/how-it-works/>> accessed on 5 July 2017- 'Shopping campaigns put your product images, price and business name right in front of people searching on Google, no matter what device they're using. You only pay when people click through to visit your website or view your local inventory.'

³⁵¹ David Ronayne, 'Price Comparison Websites' (2017) Warwick Economics Research Papers 1056 https://www2.warwick.ac.uk/fac/soc/economics/research/workingpapers/2015/twerp_1056b_ronayne.pdf accessed on 28th June 2017- the concentration of power within the hands of one price comparison website is likely to increase prices for consumers. Sellers have to pay price comparison websites for the sales they make through the website and these are passed on to final consumers. With less competition amongst price comparison websites, dominant ones will be able to raise the prices they charge to sellers which will ultimately raise prices for consumers across all competing products on the one price comparison site.

³⁵² See European Commission, 'Antitrust: Commission probes allegations of antitrust violations by Google' (*European Commission Press Release Database* 30th November 2010) <http://europa.eu/rapid/press-release_IP-10-1624_en.htm?locale=en> accessed 28th June 2017

³⁵³ See European Commission, 'Statement on the Google Investigation' (*European Commission Press Release Database* 5th February 2014) <http://europa.eu/rapid/press-release_SPEECH-14-93_en.htm> accessed 28th June 2017 and Google Inc 'Commitments in Case COMP/C-3/39.740- Foundem & Others' http://ec.europa.eu/competition/antitrust/cases/dec_docs/39740/39740_8608_5.pdf accessed 16th February 2014- For example, note towards the end of the commitments document Google proposes changes to the way it ranks its own summary of the news (Google News) from its own specialised vertical search engine, summary of places (Google Places) and display of a summary of a search term (in this document the search term is 'Frog' and culminates in Google displaying information it has copied from Wikipedia as a result of crawling prominently on the right top side of the page). These are all information that the customer seeks and does not expect to pay for.

4.4.2 Possible Limitations; *Google/DoubleClick* and the nature of search

A limitation to this hypothesis is the *Google/DoubleClick* case. Whilst *Facebook/Whatsapp*, *Microsoft/Skype*, *Google Investigations* and *Microsoft/Yahoo! Search Business* all involve products/services that are free, the *Google/DoubleClick* merger concerned a service for which advertisers as customers had to pay. Hence, it may be argued that it does not fit into the hypothesis that the EU Commission gives cases special treatment by misinterpreting the market when the service is monetarily free and therefore it disproves it.

Even though this might be the case, nonetheless *Google/DoubleClick* contributes consistently to the current narrative of the EU Commission that competition on the internet is generally high despite network effects. In terms of the fact that the merger concerned a priced service, it could be counter-argued that Doubleclick's ad serving costs were such a small proportion of the total cost of advertising,³⁵⁴ any price rises would have been an insignificant burden on advertisers.

Nonetheless, it is acknowledged that *Google/DoubleClick* does present itself as an anomaly in these line of free high technology cases.

³⁵⁴ *Google/DoubleClick* (Case No COMP/M.4731) [2008] paragraph 195 available at http://ec.europa.eu/competition/mergers/cases/decisions/m4731_20080311_20682_en.pdf accessed on 16 September 2017

Finally, the nature of search ranking itself may be a reason behind the results of the EU Commission's Google investigations. In an article, John Temple Lang discusses how when compared to *Microsoft*, in the Google investigation there was no actual plausible remedy for the search rank problem.³⁵⁵ The whole purpose of a search engine is to be able to sort out the most relevant websites for users and to rank them on top; there cannot be an obligation to help competitors reach a higher rank and receive more exposure.³⁵⁶ However, it is questionable whether complainants in the Google case were even suggesting such a solution in the first place. The main complaint behind the Google investigation did not indicate that the desired result was for Google's competitors to be featured in equal rank or to gain exposure in top ranks.³⁵⁷ The simple desire was for Google to get rid of sponsored links that had been prioritized without the use of its more organic ranking system, the organic ranking reflecting more directly what users considered as most relevant.³⁵⁸ Getting rid of sponsored ranking is not in itself impossible.

4.4.3 Possible alternative hidden reasons for the EU Commission's approach

It is acknowledged of course that the EU Commission can potentially have alternative hidden explanations behind its limited and inconsistent reasoning. In this section we look at literature that attempts to explain the more obscured reasons it approached cases in particular ways.

³⁵⁵ John Temple Lang 'Comparing Microsoft and Google: The concept of exclusionary abuse' (2016) 39(1) *World Compet* 5, 17

³⁵⁶ *Ibid*

³⁵⁷ European Commission 'Antitrust: Commission probes allegations of antitrust violations by Google' 30th November 2010 Press Release <http://europa.eu/rapid/press-release_IP-10-1624_en.htm?locale=en> accessed 11th February 2014.

³⁵⁸ *Ibid*

However, what we do see is that a lot of the literature does not help explain the EU Commission's lax approach towards free high technology cases.

For example, it has been put forward that European competition authorities are protectionist and therefore very strict towards mergers involving American firms.³⁵⁹ The authorities have an agenda that involves thwarting the growth of foreign firms so that local firms are able to gain a better footing.³⁶⁰ In this thesis however, we see the complete opposite problem. We see the European Competition Commission approach some of the highest valued American firms in the world with a lot of leniency in the sense that unconditional mergers have been allowed.

Another point of view is very different. Whilst it may be true that American business communities have been highly critical of the EU's decision to challenge mergers that the American authorities would not, the EU Commission has been lenient towards merger decisions in general.³⁶¹ Furthermore, this can also be compounded by an opposing political notion; that is that foreign political pressure can have a considerable influence on the EU Commission's decisions.³⁶² For example, a large country like the United States could politically pressure European Competition authorities to be lenient towards American companies.³⁶³

³⁵⁹ See for example N Aktas, E de Bodt & R Roll 'Is European M&A Regulation Protectionist?' (2007) 117(522) *Econ. J.* 1096

³⁶⁰ *Ibid*

³⁶¹ Thomas E Kauper 'Merger Control in the United States and the European Union: Some Observations' (2012) 74(2) *SJLR* 305. Furthermore, see J Grant & D Neven 'The attempted merger between General Electric and Honeywell: A case study of transatlantic conflict' (2005) 1(3) *JECL & Pract* 595- The General Electric and Honeywell merger is an example of where the European authorities refused to allow the merger but the Americans did. However, it is a rare example.

³⁶² T Duso, L Roller & D Neven 'The Political Economy of European Merger Control: Evidence using Stock Market Data' (Forthcoming in the *Journal of Law and Economics* 2007) available at <http://ec.europa.eu/dgs/competition/economist/stockmarket.pdf> accessed on 29 August 2017

³⁶³ *Ibid*

This cannot be the most convincing explanation behind the EU Commission's approach. Firstly, there are very recent examples where the European Competition Commission has shown that it will not succumb to political pressure and be influenced by its counter-parts across the pond. For example, whilst the US competition authorities quickly cleared the Microsoft/LinkedIn merger, the EU probed it and made it conditional on a number of commitments.³⁶⁴ Furthermore, the EU's record fine of Google aroused accusations of a trade war with the United States.³⁶⁵

Secondly, even if the political issue does have an influence, it does not explain why the EU Commission is lenient towards some American companies and are stricter with others. Our hypothesis fundamentally infers an explanation from the difference in treatment of two categories of cases. It is true that all mergers discussed in this thesis were allowed by the EU Commission. However, some were conditional upon commitments whilst others were not. So the EU Commission has overall been lenient in all cases. However, amongst those cases some have been treated with an additional degree of leniency by making the merger between two very large entities unconditional.

In conclusion the literature on the general approach of the EU Commission and the obscured political reasons behind it does not provide an alternative explanation as to why the EU

³⁶⁴ Joon Ian Wang 'The EU's top antitrust cop proved Marc Benioff wrong about Microsoft and LinkedIn' (*Quartz*, 6th December 2017) available at <https://qz.com/854609/the-microsoft-msft-and-linkedin-lnk-d-merger-is-cleared-by-eus-antitrust-regulator/> accessed on 29 August 2017

³⁶⁵ Nils Pratley 'Google fine: EU is not waging underhand trade war against US Tech firms' (*The Guardian* 27th June 2017) available at <https://www.theguardian.com/technology/nils-pratley-on-finance/2017/jun/27/eu-google-fine-us-european-commission> accessed on 29 August 2017

Commission treats free high technologies leniently. Again, it is true that there has been a general drop in competition enforcement in mergers and acquisitions³⁶⁶ and therefore it can be argued that leniency on the part of the EU Commission is a general problem and not limited to free high technologies. However, our hypothesis is not formulated simply on the basis of the EU Commission's general leniency. It is formulated against the background of comparative leniency where the EU Commission has been tougher on others than some whilst overall allowing mergers and certain unilateral actions to continue. The EU Commission treats two categories of cases differently with a lack of convincing justification. That must say something about the difference in intentions between those two categories.

4.5 Conclusion

RH Bork and JS Sidak, two prominent competition law specialists in the US, were commissioned by Google to research the complaints regarding anti-competitive conduct.³⁶⁷ They both express Google's practices as being pro-competitive and legal.³⁶⁸ One of the first points that is made in their research paper is the fact that search is a completely free service and that users can simply switch to a different search engine,³⁶⁹ given that they have not had to invest money into the incumbent search engine in the first place. This is pro-competitive as there is provision of a free high quality service and any form of authoritative intervention in their practices could stifle innovation and efficiency.³⁷⁰ Their opinion sums up perfectly the reason why a dominant company in the free high technology market has a positive impact on

³⁶⁶ F Maier-Rigaud & K Parplies 'EU Merger Control Five Years After The Introduction Of The SIEC Test: What Explains the Drop in Enforcement Activity?' (2009) ECLR 565

³⁶⁷ RH Bork and JS Sidak 'What does the Chicago School teach about internet search and the antitrust treatment of Google' (2012) 8(4) J.C.L.& E. 663

³⁶⁸ Ibid

³⁶⁹ Ibid

³⁷⁰ Geoffery A. Manne 'The Problem of Search Engines as Essential Facilities: An Economic & Legal Assessment' International Center for Law & Economics (January 17 2011) ICLE p434

consumer welfare. Not only do they provide a free service, but a highly innovative and beneficial one as well. When economists speak of welfare and they consider the user side of the market, consumer welfare is always considered as user benefit minus price; in other words the price that a user has to pay reduces the benefit to that and hence consumer welfare.³⁷¹ There is no monetary price to pay in free high technology markets and hence the consumer is able to enjoy the full benefit of the service; naturally consumer welfare is much higher in such an industry than in others.

We have hypothesized that the EU Commission is also of this belief and is therefore forced to justify mergers and unilateral actions inconsistently and in a limited manner. It has to paint the picture of a highly competitive market. We saw in section 2.2.6 that this is unlikely to be true of free high technology markets in the sense that the competitive pressure does not usually come from competitors within the same relevant market but from a possibly uncertain future disruptive product/service that would create a new market of its own and replace the current market; this is not the same as competition within the same relevant market.³⁷² We now need to find a way for the EU Commission to justify these mergers and unilateral actions in a more convincing way and in a way that is suited to free high technologies.

³⁷¹ See M Armstrong 'Competition in Two-Sided Markets' (2006) 37(3) RJE 668,669

³⁷² Even if there is competition in the market it does not preclude the finding of a dominant position. See Case 85-76 Hoffmann-La Roche v. Commission [1979] ECR 461 paragraph 70; 'The Court has already held *inter alia* in its judgment of 14 February 1978 in Case 27/76, United Brands Company v. E.C. Commission, 30 that even the existence of lively competition on a particular market does not rule out the possibility that there is a dominant position on this market since the predominant feature of such a position is the ability of the undertaking concerned to act without having to take account of this competition in its market strategy and without for that reason suffering any detrimental effects from such behaviour.'

It has been argued however, that competition law already possesses flexible tools to assess market power and dominance of companies involved in the new digital economy.³⁷³ The recent Commission fine in the Google Shopping case has been cited as an example of a Commission decision where, despite lively competition in the market, the authority was able to clearly detect market power and an abuse.³⁷⁴ It was seen that Google's high market share had been established for a long period of time, and therefore it could not be concluded that its market power was short-lived.³⁷⁵ It is therefore without question that competition law tools are flexible enough to capture the unique attributes of the digital economy. However, this could be a reflection of excessive flexibility to the point of legal uncertainty. For example, there is no clear reason put forward by the EU Commission, as we have seen in Chapter 3, as to why this argument of long-sustained market power does not apply to cases such as *Facebook/Whatsapp* and *Microsoft/Skype*.³⁷⁶ As we will see in Chapter 4, the problem therefore is not a lack of tools, but perhaps the lack of an appropriate selection of available tools to be applied to a particular category of cases involved in the digital economy. Hence, for the sake of legal certainty we require more than an overall flexibility available in competition law. We need a test that aligns with and clarifies the EU Commission's belief that free high technologies are good for consumer welfare.

³⁷³ Hedvig Schmidt 'Taming the Shrew: There's no need for a new Market Power Definition for the Digital Economy' (Stockholm Faculty of Law Research Paper Series no 17, presented in June 2017) 17 available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3048266 accessed on 30 December 2017

³⁷⁴ Ibid

³⁷⁵ Ibid 26

³⁷⁶ Ibid 8- the author does state that there are problems with current merger regulations and appears to therefore mainly focus on Article 102 cases as specifically having the correct available tools. However, this thesis, as explained earlier in sections 3.1.3 and 3.1.4, does not make a distinction between merger cases and Article 102 type cases as both still require the same determination of questions/arguments regarding market power. Hence, the same tools/methods of rationalising pertinent arguments as to market power should also be available in a merger context.

We now know from section 2.4 that consumer welfare is arguably the most important objective in competition law. Hence, one can argue that when it comes to any tension between consumer welfare and the protection of competition objectives (as we have seen in the free high technology market), consumer welfare should take precedence. In this chapter we have established that this tension between the two objectives has caused confusion and incoherence in the reasoning of Commission decisions. Hence, in the next chapter, we propose specifically for investigations into the free high technology market, the use of a different test that fundamentally shifts the focus away from the idea of protecting competition, and hopefully shifts the focus on consumer welfare.

The necessity for the search for a clearer test for, for instance, consumer harm is something that is emphasized in some of the literature.³⁷⁷ Pinar Akman, for example, points out that despite the EU Commission's rhetoric that consumer welfare is the main objective of competition policy in the EU, it is very unclear whether it is in fact the case in decisional practice.³⁷⁸ The majority of investigations and EU cases do not have a clear test for consumer harm.³⁷⁹ Furthermore, a lot of them, just like we have seen in the EU Commission's investigations into free high technology services, appear to emphasize the protection of the competitive structure in its reasoning.³⁸⁰ This chapter has detected a similar problem, albeit in a more specific and crucial context of free high technologies where there is a more unique and clearer danger of equating the protection of the competitive structure to the protection of consumers. The aim in the next chapter is to figure out an appropriate test. As we will see, although the hope was to find a test that analyses consumer benefit directly, it would be more

³⁷⁷ Refer to Pinar Akman "Consumer Welfare" and Article 82EC: Practice and Rhetoric' (2009) 32(1) W. Comp. 71

³⁷⁸ Ibid

³⁷⁹ Ibid

³⁸⁰ Ibid

appropriate to formulate one that still focuses on competition in the market; albeit in a fashion which avoids all the limitations and inconsistencies seen here in Chapter 3.

CHAPTER 5- FORMULATING AN APPROPRIATE TEST FOR FREE HIGH TECHNOLOGY INVESTIGATIONS

5.1 Introduction

We have concluded from the previous Chapter 4 that, for free high technology cases/investigations we require a test that is not based on the assumption that competition is good for consumer welfare. This is because we concluded that in the free high technology industry there is a very good chance that consumer welfare can be improved without the need for competition; a dominant company is capable and likely to be able to contribute to consumer welfare positively. We therefore require a test that recognizes this theory whilst also making room for false positives.¹ In finding such a test the EU Commission would be able to avoid having to provide statements based on limited rationale about the market power that many free-high technology companies hold in reality. Ideally the types of questions we want answered in the test are as follows:

- a) Does the merger/unilateral action improve/reduce the likelihood of innovation in the industry?
- b) Does the merger/unilateral action improve/reduce the likelihood of innovation in the industry on the part of the dominant company?
- c) Does the merger/unilateral action improve/reduce the likelihood of innovation in the industry on the part of competitors?

¹ See A Devlin & B Jacobs 'Antitrust error' (2010) 52(1) Wm. & Mary L.Rev. 75. False positives in competition law occur when all conditions for a test to determine whether a unilateral action or merger is anticompetitive are met; but the test does not appropriately take into account pro-competitive effects that impact consumer welfare positively. For example, under Article 102(c) a dominant company may be found guilty of (c) 'applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage' by giving certain trading parties discounts and not to other; however, this conduct may also overall seem as a positive as it means cheaper products for more consumers. The test, by punishing a dominant company, has prevented lower prices. Hence the phrase false positive.

These questions in essence try to find out whether any increase in market power of a dominant company will allow it to maintain, improve or reduce consumer welfare. However, they solely focus on the innovation aspect of consumer welfare. This is because prices for consumers are irrelevant as the product/service is free; the only aspect that can affect consumers is an increase or decrease in innovation/quality as we saw in section 2.2.6.² We have therefore seen that innovation should be a major aspect of analysis for the free high technology sector; any competition law test should fundamentally therefore revolve around the analysis of innovation.³

We observed that consumer welfare is the main objective of competition policy and the EU Commission has stated on various occasions, through its guidance papers and statements,⁴ that this is so. Yet, we also observed in section 2.3, that despite this, the structure of analysis in competition cases of free high technology services is still based on the assumption that competition is good for consumers. The analysis fundamentally focuses on the competitive structure of the market i.e. for example, the number or strength of competitors in the market capable of restraining the dominant player.

Given the free and innovative nature of free high technology, one can already guess that what we are looking for is an analysis/test that directly assesses the consumer harm or welfare likely to be occasioned to the benefit of consumers following a merger or unilateral action by

² We also of course recall seeing that choice is stated as an aspect as well, but it is not a standalone standard by which consumer welfare is determined. We also discussed how the issue of choice is more closely related to the protection of competition objective, and if it were strictly integrated into the meaning of consumer welfare, there would be an inbuilt presumption that increased competition is always good for consumers.

³ Rupperecht Podszun 'The More Technological Approach: Competition Law in the Digital Economy' in G Surblyte (ed) *Competition on the Internet* (Springer Verlag Berlin Heidelberg 2015) 108

⁴ See Commission, 'Communication from the EU Commission — Guidance on the EU Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings' (2009/C 45/02) paragraph 6, Commission, 'XXIInd Report on Competition Policy' (2002) page 20, Commission 'Report on Competition Policy 2015' COM(2016) 393 final page 5

a dominant player. We do not desire a test that makes assumptions on the effect on consumers based on the competitive structure. Although it has been said that there is space in current analysis for the EU Commission and courts to take into consideration the quality of products⁵ (which has a direct effect on consumer welfare), it is also admitted that decision makers put significantly more weight on the possibility of foreclosure⁶ or reduction in competitors as decision-making factors.

However, calls for a more direct assessment of consumer⁷ harm have been prevalent in the literature for a while now.⁸ The evidence available in literature does not provide a definitive conclusion as to what market structures will encourage innovation.⁹ What this could mean is that the majority of the competition law tests used, which operate on the presumption that only a competitive market structure leads to innovation, may be committing mistakes and making incorrect conclusions. The most difficult question to answer appears to be how to determine whether conduct of firms harm consumers.¹⁰ A direct consideration and analysis

⁵ See Hedvig Schmidt ‘Article 82: is technological integration checkmated?’ (2009) 4 JBL 354, 375- the author appears to suggest that had Microsoft focused on showing ‘superior technical product performance’ of an operating system with a tied media player in the CFI *Microsoft v Commission* case, the courts could have possibly allowed the tying.

⁶ Ibid 374

⁷ We have defined consumer welfare and consumer benefit as the positive benefits that consumers experience from a product/service and/or from purchasing that product/service which can be affected by the levels of competition in relevant markets. Consumer harm is therefore any negative aspects that consumers suffer from as a result of changed levels of competition in the market. Standard examples are lower quality and higher prices.

⁸ See for example, Adrian Majumder ‘The Role of a consumer harm test in competition policy’ (2008) 20(2) Loy Consumer L Rev 144, P Marsden & S Bishop ‘Editorial Article 82 Review: “What is your theory of harm?”’ (2006) ECJ 257, 262, P Rey & J Venit ‘An Effects-Based approach to Article 102: A response to Wouter Wils’ (2015) 38(1) W. Comp. 3, Report by the Economic Advisory Group on Competition Policy (EAGCP), An Economic Approach to Article 82 (July 2005) page 3 http://ec.europa.eu/dgs/competition/economist/eagcp_july_21_05.pdf accessed on 8 February 2017- The economists in this report stated that it was important to understand the effect on consumers of conduct. The only way to do this is to analyse on a case by case basis also taking into consideration the empirical evidence; positive effect on consumers can be taken as a sign that competition is working regardless of whether there is an increase in market power.

⁹ Marcus Glader *Innovation Markets and Competition Analysis* (Edward Elgar 2006) 17

¹⁰ P Marsden & S Bishop ‘Editorial Article 82 Review: “What is your theory of harm?”’ (2006) ECJ 257

of innovation may be quite difficult.¹¹ The quality of technological progress is hard to assess and also there is no price that consumers pay for it¹² to indicate to what extent it is demanded by them.¹³

The most obvious and ideal solution to the problem of legal uncertainty we have detected thus far would be to propose a test that directly assesses the effects on consumers as a result of an increase in market power of a firm. In that way the analysis could reveal how a larger company with a larger market could bring about all the benefits to consumers we discussed in section 2.2. However, as we saw in Chapter 3 (especially section 3.2), virtually all tests currently in competition law analysis fundamentally focus on market structure. If the market structure changes so as to reduce the number of competitors in the market, negative effects on consumers are inferred. Negative effects on consumers are barely assessed directly; for example we saw in Chapter 3 that the motives to innovate to the benefit of consumers are dependent on how much competition there is in the market. There must be a reduction in competition in order for the authorities to feel justified in taking any remedial action. For example, we will see this when we discuss arguably the only clearly structured and most direct consumer harm test in the *MaGill*¹⁴ case. The test assesses the newness of a product and if there would be a demand for such a product; the demand indicates consumers could benefit and therefore it should not be prevented from entering the market. The consumer benefit element seems to take priority here. But even then there is the caveat that competition

¹¹ Pablo Colomo 'Restrictions on Innovation in EU Competition Law' (2016) 41(2) E.L.Rev 201, 219; it is difficult to see how an authority or claimant for that matter could provide strong reliable evidence to determine the likely effects on innovation will be due to particular conduct.

¹² Research and development is carried out by companies on their own accord and not by consumers. Consumers only pay for the product that stems from research that leads to innovation. Hence, whether or not the research is demanded in the first place is unknown.

¹³ Robert Bork *The Antitrust Paradox- A Policy at War with itself* (1978/1993 The Free Press New York) 132- the author in addition states that due to such difficulties with assessing innovation, it should be taken out of competition law/antitrust analysis.

¹⁴ Joined cases C-241/91 P and C-242/91 P *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v Commission of the European Communities* [1995] ECR I-00743

is reduced in the market. Direct assessment of the benefits or disadvantages to consumers is difficult to carry out;

‘...quality is a subjective concept and therefore much harder to define and measure than prices. In addition, microeconomic theory offers little help in predicting how changes in the level of competition in a market will affect quality and it is usually up to empirical analysis to determine how quality will change in response to varying degrees of competition in the context of particular markets.’¹⁵

5.1.1 Current suggestions in the literature

The proposal to take into deeper consideration quality and innovation factors has been prominent in the literature. However, the method of analysis is still based very much on the idea of competition being good for consumers. For example, Keith Waehrer has suggested using something similar to an upward pricing pressure¹⁶ model in predicting the effects on quality.¹⁷ However, this is a model which appears to be on the basis of the idea that a merger can afford to lower quality (motivated by saving the higher costs arising from providing better quality services) because it can recapture some of the arising lost customers between

¹⁵ Organisation for Economic Co-operation and Development(OECD), ‘The Role and Measurement of Quality in Competition Analysis’ (DAF/COMP(2013)17, Oct. 28, 2013) 44, available at <http://www.oecd.org/competition/Quality-in-competition-analysis-2013.pdf> accessed on 23 September 2017

¹⁶ Upward Pricing Pressure model predicts the change in price post-merger depending on how close the parties are as competitors prior to the merger. If they are close competitors (their products are substitutable with each other) after the merger there is more incentive for the price to be put up significantly. This is because some of the lost consumers due to the price will be recaptured by the other merging party; since both are under common ownership, both are able to earn increased profits. (For more explanation you may refer to L. Wiethause & R Nitsche ‘Upward Pricing Pressure Analysis: Critical Issues in Recent Applications’ (2015) 6(1) JECL & Pract 48)

¹⁷ See K Waehrer ‘Online Services and the Analysis of Competitive Merger effects in Privacy Protections and Other Quality Dimensions’ Draft, 12 January 2016 <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.726.2142&rep=rep1&type=pdf> accessed on 27 March 2017; the authors main focus is actually on the assessment of how privacy will be affected post-merger but clearly states that the same suggested method of assessment can be applied to other quality dimensions.

each other as a result.¹⁸ Such a theory again suggests that quality will be lowered due to a lack of pressure from a higher number of competitors in the market.¹⁹ Hence if we were to use such a model in free high technology cases, where such services are good for consumer welfare, we would have to be working on the assumption that a reduction in the number of competitors as a result of a merger in the market would lead to a subsequent reduction of quality for consumers.²⁰

In the specific context of mergers, it has been indicated that a focus on efficiencies can clearly illuminate the cost savings passed on to consumers and put mergers in a positive light in terms of them directly and positively affecting consumer welfare. However, the success rate of efficiencies arguments appears very bleak in merger cases.²¹ The *Microsoft/Yahoo! Search Business*²² decision appears to be cited as a case which shows that the argument of efficiencies in terms of their benefits to consumers can be a major factor in the EU Commission's decisions;²³ we can recall that the merger would allow access to a wider pool of data from which better search algorithms can be formulated to produce improved search results for users. However, it is no mere coincidence that both Microsoft and Yahoo! had and still have small market shares in the search market. We can also recall that the merger was partially encouraged by the idea of having a stronger competitive force against the dominance

¹⁸ Ibid

¹⁹ Ibid

²⁰ Ibid

²¹ See for example M Kocmut 'The Role of Efficiency considerations under the EU Merger Control' Working Paper (L) 09/05 < https://www.law.ox.ac.uk/sites/files/oxlaw/cclp_1_09-05.pdf > accessed on 5th May 2017

²² *Microsoft/Yahoo! Search Business* (Case No COMP/M.5727) [Commission Decision of 18/02/2010]

²³ See M. Stucke & A Grunes *Big Data and Competition Policy* (2016 Oxford University Press) 312- The authors suggest that as long as customers in support of the merger (with specific reference to *Microsoft/Yahoo!*) state that the increase in data will lead to better results as a result of efficiencies, the EU Commission will more likely pay heed to the efficiencies.

of Google.²⁴ It is therefore still doubtful that efficiencies can protect a merger between parties where at least one of the parties has a very large market share.

5.1.2 Considering a wider product market?

From our analyses so far, a very obvious solution may have started to emerge that we cannot ignore and should address. It is quite clear at this point that free high technology companies are capable of entering each other's markets with ease; whether or not they do it successfully is another matter. It can be argued that there are definitely multiple large powerful high technology corporations presenting potential competitive constraints on each other. And one of the reasons behind this is because competitors in the free high technology market desire establishing a platform; it does not matter what that platform's main service is, but as long as it has a huge user base it can introduce other services and attempt to tip their users into those services.

If different platforms can compete regardless of whether they are fundamentally known for a particular service, why not put these platforms in the same market? This scenario would therefore entail, for example, a search engine, online social network, email service, news website and a shopping website all in the same product market. Technically any website that experiences traffic can become a competing platform as long as it has the potential to add more services.

The idea does sound extreme and difficult to make sense of on a visceral level. The truth is that most of the time, seeing how the industry is, there are several giant technology

²⁴ *Microsoft/Yahoo! Search Business* (Case No COMP/M.5727) [2010] paragraph 145 at http://ec.europa.eu/competition/mergers/cases/decisions/M5727_20100218_20310_261202_EN.pdf accessed on 4th February 2015

companies that are extremely dominant; but they are each dominant in a different field.

Occasionally, they may introduce a service that fundamentally another company is known for and it will take away considerable market share from its competitor. A lot of the time however, the technology giants cannot steal each other's customers in the context of their competitor's core service, but simply remain highly dominant in their own core service. Therefore, unless the industry regularly observed massive shifts in clientele for different online services, it would be hard to justify having all the technology giants operating online in the same product market.

5.1.3 What we are left with

As mentioned, the current case law and even literature are far from ditching traditional competition analysis in favour of direct analysis of consumer harm.²⁵ To suggest a test that takes the latter form would appear to be radical and would only be appropriate in a thesis that solely researches the viability of formulating a test that directly assesses consumer harm.

Instead, it would be more acceptable to have a test that conforms to some extent to current norms, or at least to tests that have already been used in the case law, but have been somewhat controversial. Two forms of analysis seen in competition law appear to be able to potentially help us formulate an appropriate test for free high technology companies without

²⁵ For example see Pinar Akman "Consumer Welfare" and Article 82EC: Practice and Rhetoric' (2009) 32(1) World Compet. 71, 88- 'However, it must be remembered that Article 82EC is ... a provision of competition law. As also held by the EC Courts, although Article 82EC contains no reference to the anticompetitive object or anticompetitive effect of the practice referred to, in the light of the context of Article 82EC, conduct will be regarded as abusive only if it restricts competition. Thus, mere consumer harm should not be sufficient for conduct to be abusive if it is not tied to some effect on competition or due to some conduct affecting competition. Hence, just like mere harm to the structure of competition not being enough for conduct to be abusive, mere consumer harm should not be enough on its own either: if the standard is 'consumer welfare', then harm to consumers resulting from a restriction of competition should be the test for finding conduct abusive under Article 82EC.' In section 2.4.3 we also saw the *Intel* rebates judgements refusing to relinquish a form based test in favour of a more direct consideration of consumer harm.

suggesting any radical departures. The first is the consideration of innovation markets and the second is the *Magill*²⁶ test.

Innovation markets allow us to consider the competition for innovation in a particular market.²⁷ We have discussed how a lot of dominant free high technology companies are well-suited (due to their size and concomitant ability to innovate better than smaller competitors) to maximizing benefits to consumers themselves in section 2.2. Also as we saw in section 2.2.6 with disruptive innovation, one of the few likely ways that benefits to consumers can increase at that point is when either the dominant company itself or one of its competitors comes up with a completely revolutionizing product/service (or a product that is just substantially good enough to the point where it can no longer be interchangeable with the current product) that completely replaces the current product. In that sense, current dominant free high technology companies are under competitive pressure from potentially displacing products/services but not necessarily from those within the current product market.

We will see that the innovation market allows for the analysis of this unique type of competitive pressure that free high technology companies feel. More importantly however, in relation to our quest for a more appropriate test, the innovation market is convincingly more competitive than a current product market ever would be. We will observe that in the innovation market we need only detect the number of alternative competing research and development projects to conclude competitiveness in the market. In free high technology markets this sort of competition is definitely omnipresent. In current product market analysis (as we have seen in Chapter 3 throughout), in order to show competitiveness questions on

²⁶ Joined cases C-241/91 P and C-242/91 P *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v Commission of the European Communities* [1995] ECR I-00743

²⁷ R Gilbert & S Sunshine 'The Use of Innovation Markets: A Reply to Hay, Rapp and Hoerner' (1995) 64 *Antitrust L.J.* 75

market share, market power and network effects are much more important. Given a dominant free-high technology company's display of all these three aspects at a very high level, we argued in Chapter 3 that the authorities have found it difficult to convincingly explain that such companies' unilateral actions and mergers are not a threat to competition. However, as we will conclude through analysis, the use of an innovation market would convincingly show that the market is competitive in free high technology markets.

So the innovation market analysis is a viable solution.²⁸ There is just one gaping problem. Generally, in competition law, one cannot simply discard current product market analysis. Hence, any analysis of the innovation market will have to run parallel to a current product/service market analysis. As long as there is a market where the authorities conclude that there is a chance of significant reduction in competition, there is always the risk that the authorities will have to block the companies from continuing their unilateral acts and mergers.

So the next question is, is there any way to have a competition analysis that solely looks at the innovation market? The *Magill* case, in conjunction with other cases such as *Microsoft*,²⁹ *IMS*³⁰ and *Bronner*,³¹ on refusal to supply appears to provide a test that could allow us to

²⁸ See European Commission 'EU competition law in innovation and digital markets: fairness and the consumer welfare perspective' (Brussels 10 October 2017) available at http://ec.europa.eu/competition/speeches/text/sp2017_15_en.pdf accessed on 22 August 2018- the EU Commission places emphasis on how the analysis of digital markets requires a shift of focus on innovation in general. Also, see the recent case of *Dow/Dupont* (Case M.7932) [2017] available at http://ec.europa.eu/competition/mergers/cases/decisions/m7932_13668_3.pdf accessed on 22 August 2018- a significant concern was concentration in the innovation market where there were only five players to begin with. The merger was allowed on certain conditions, one of them being the divestiture of Dupont's R&D organisation to maintain competition in the relevant innovation market.

²⁹ Case T-201/04 *Microsoft v Commission* [2007] ECR II-3619

³⁰ Case C-418/01 *IMS Health GmbH & Co. OHG v NDC Health GmbH & Co. KG* [2004] ECR I-05039

³¹ Case C-7/97 *Oscar Bronner GmbH & Co. KG v. Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG* [1998] E.C.R. I-7791

specifically look at the innovation market without doing a conventional analysis of the current product market. We will see that the test mainly revolves around the question of whether the unilateral action of refusing prevents the emergence of a new product for which there is no market currently. If it does, the refusal is found to be anti-competitive. Of course, there are other elements of the test that involve some form of competition analysis, but as we will discover, they are not the fundamental parts of the test and the analysis itself is not the most conventional.³²

Our evaluation of the *Magill* cases along with other refusal to supply cases will show that the ‘new product’ requirement does not have to be interpreted strictly in the sense that there is no need to show that a specific product with certain features is looking to be created. It is enough to show that the unilateral action prevents incentives to attempt to innovate in the market (which in turn increases the chance of new products and improvements in the market). Hence, we combine some of the innovation analysis with the *Magill* test and adapt it to free high technology markets.

5.2 Current analysis of innovation in competition law

Analysis of innovation markets may be an answer to our quest to finding an alternative legal test that fits well with the unique nature of free high technology. As already stated, product markets such as search and social networking involve companies with very potent market power. Competitive pressure mainly comes from outside the relevant market and through any significantly superior or revolutionizing products/services produced by other companies.

³² Conventional analysis aims to find out whether there is or there is a high chance of a significant reduction in competition. In *Magill* the question is whether competition in a secondary market is completely eliminated. Hence, there appears to be a higher standard to reach to prove anti-competitiveness. It must be much more than a significant reduction to satisfy this test.

Hence, by looking at the innovation market, which would for example, include all competing research and development we can avoid the analysis of the current product market which forces the EU Commission to show that there is low market power, the EU Commission can avoid having to use a limited approach.

Furthermore, such analysis makes sense. As discussed previously in section 2.2.6, whilst competition in the free high technology sector can involve innovation efforts in the relevant product market, a lot of competitive pressure emanates from innovation from completely new technologies that may also be revolutionary to the point that they replace the current technology available. This then leads to a whole market being virtually replaced. Given this nature of the technology market, research and development and innovation in completely new or significantly improved products should be taken into consideration when it comes to competition analysis; it would give a better picture of the actual competitive pressure the concerned company would experience and of where that pressure comes from.³³ Ignoring this form of analysis could lead to the wrong conclusion about innovation being low in a market due to increase in market share. Companies may hold market power in the current product market but unlike more traditional scenarios, they fear the replacement of the entire market as a whole as opposed to being replaced within the same market. That fear is one of the factors that drives companies with high market power to push innovation forwards.

³³ Marcus Glader *Innovation Markets and Competition Analysis* (Edward Elgar 2006) 195. The author makes a distinction between analysis for innovation in current markets and that of potential future markets. In current markets a structured analysis of competition in research and development needs to be considered. When it comes to analysing new products that are possibly going to replace the current product, the analysis cannot really directly involve research and development of current products as there is quite a lot of uncertainty associated with the future success of the potential product. Instead, the focus should be on whether or not the actions of the dominant firm have a negative effect on incentives of competitors to continue pushing in research and development.

We will begin by understanding the more conventional analysis of innovation that is applied to most competition cases (including those involving free high technology) in general. We will see that those are very much based on the presumption that competition is good for consumer welfare and does not involve any direct assessment of what the current state of innovation in that particular market or closely related market is like. We will then consider the direct consideration of innovation in the form of pipeline products and research and development projects. We will observe how this is different and involves a more direct consideration of actual ongoing innovation in the industry without using any presumptions as a basis for analysis.

5.2.1 Analysis of innovation in general

Thus far, we have mentioned that the introduction of innovation markets in free high technology analysis will contribute towards an appropriate test. However, this is not to say that innovation does not already currently play a role in competition analysis in all cases including free high technology ones. It does play a role, but is embedded, as we will see, in the analytical framework that assumes competition is good for consumers. We therefore need to look at how innovation is analysed and therefore understand how it may be inadequate. We will ultimately see that the analysis we look at here is very different from the innovation market concept and that is why current analysis of innovation in general is not appropriate.

The case of *Crown Cork & Seal/CarnaudMetalbox*³⁴ concerned a merger between two large manufacturers who were present in the packaging industry.³⁵ Both were present in the

³⁴ *Crown Cork & Seal/CarnaudMetalbox* (Case No IV/M.603) [2014] available at http://ec.europa.eu/competition/mergers/cases/decisions/m7104_1396_2.pdf accessed on 23rd September 2017

³⁵ *Ibid* para 1- 5

specific market of tinplate aerosol cans in the EU.³⁶ The product had its own market as tinplate aerosol cans had technical advantages that other forms of packaging did not; hence substitutability with other forms was difficult.³⁷ But more importantly, the case stated that these were the only two companies together who were capable of pushing innovation in this area forward; they had the technical know-how, research and development and technology to do this.³⁸ This sort of innovation led to competitors to attempt innovation as well.³⁹ The concern was that with a reduction in competition there would be less of a drive for innovation.⁴⁰ Hence, whilst the merger was allowed, the EU Commission approved it on condition that the companies divest some of their aerosol business and in addition provide the company with licenses over know how, for example.⁴¹ An important aspect of this decision is the fact that the effect on innovation is taken quite seriously and is considered an important part of the decision. However, it is still considered within the original paradigm of fewer competitors leading to less innovation. Although, it was argued that the two companies have better ability to innovate and could combine to improve efficiency in innovation, the reduction in competition is what was the more concerning issue.

One of the problems with this sort of analysis is that it appears narrow in the sense that it only considers the innovation efforts of the parties involved and others in the same market; it is possible that there are others developing other forms of new packaging that can be substitutable or even be of such a substantially greater quality that it can completely render it

³⁶ Ibid para 11

³⁷ Ibid paras 12-13

³⁸ Ibid para 61

³⁹ Ibid 66

⁴⁰ Ibid

⁴¹ Ibid 115

obsolete.⁴² However, the EU Commission's decision in *Shell/Montecatini*⁴³ appears to some extent, consider alternative innovations that take place beyond the relevant market in terms of products that one day could replace the current generation. The two companies sought approval for a joint venture in the area of polypropylene technology and the licensing of that technology.⁴⁴ Together the two companies would have between 50 % to 75% of the market.⁴⁵ The EU Commission concluded that they were the most technically advanced in comparison to their competitors, they had strong patent portfolios and that competitors would not be able to restrain them due to these factors; the joint venture would significantly impede competition.⁴⁶ But what the EU Commission also considered is that there were a number of entities engaged in research and development of a new generation of polypropylene technologies that could outclass the current technology.⁴⁷ However, the EU Commission did not allow this fact to affect its conclusions on the high market power of the two companies.⁴⁸ It stated that commercialization of the new technologies being developed could take a very long time and it would be hard to determine the true potential of it at this point in time.⁴⁹

The maintenance of a certain number of competitors in a market is therefore still a very important factor, even when innovation is considered. It appears to be a deeply-entrenched method of analysis. The question never focuses on any incentives that the dominant company may have to innovate apart from competitive pressure within the market. Innovation is only meant to thrive where there is a competitive market. The great extent of this theory is

⁴² Marcus Glader *Innovation Markets and Competition Analysis* (Edward Elgar 2006) 98

⁴³ *Shell/Montecatini* (Case No IV/M. 269) [1994] available at http://ec.europa.eu/competition/mergers/cases/decisions/m269_en.pdf accessed on 23rd September 2017

⁴⁴ *Ibid*

⁴⁵ *Ibid*

⁴⁶ *Ibid*

⁴⁷ *Ibid*

⁴⁸ *Ibid*

⁴⁹ *Ibid*

somewhat reflected in the EU Commission investigation of *Optical Fibres*.⁵⁰ In this case an American company known as Corning was to engage in three joint ventures with three different cable manufacturers. Corning had advanced technology that the cable manufacturers required and the three different cable manufacturers were based in three different European countries. Corning was the one of the few companies that had this technology. The EU Commission found overall that competition in the market would be reduced. It however recognized also that there were immense advantages to the joint ventures; Europe would be able to quickly advance technologically in this area obviously bringing in benefits to consumers. Despite this, the EU Commission still resolved the reduction in competition via particular remedies.⁵¹ We therefore see how important this aspect of the competition analysis is. The bringing of new technology to the benefit of consumers is not enough; there must not be a simultaneous reduction in competition.

The truth is that the assessment of the competition structure as opposed to a pure analysis of the benefits to consumers is deeply ingrained in competition law. The competition investigation of pharmaceutical industries is a good example to illustrate this. We can see the high emphasis on assessment of competition in the pharmaceutical industry where companies are more likely than any other industry to require market power to produce. Pharmaceutical companies invest massive sums of money⁵² into developing drugs for over ten year periods before they are allowed to market them and recoup their investments.⁵³

⁵⁰ *Optical fibres* (Case No IV/30.320) [1986] OJ L 236/30

⁵¹ Ibid- paragraph 84 onwards- The different joint ventures were not allowed to exchange any competitive information whatsoever such as prices and marketing plans. They were also required to provide quotations annually to the EU Commission so that the EU Commission can monitor prices.

⁵² D Masi 'The Price of Innovation: New Estimates of Drug Development Costs' (2003) 22(2) J Health Econ 151-85; the author puts the cost up to 800 million euros to develop and research a drug.

⁵³ Ibid 18; Referring to footnote 13 on this page the author receives this information from a book in Italian; Lucioni *Le conseguenze delle politiche di contenimento della spesa pubblica nel contest attuale del mercato farmaceutico* in *Rassegna di Diritto Farmaceutico* (1996) 358

On top of that a significant number of their research and development projects fail at various pre-market stages of the development of the drugs;⁵⁴ hence there is a lot of money lost. It is therefore understandable why a pharmaceutical company may have to be allowed some level of market power over particular drugs and the development of those drugs in order to motivate it to push medicines and treatments forward to the benefit of the public. From a consumer welfare point of view, drug therapies without question have helped people with various diseases and have an extremely important role in improving the state of modern society.⁵⁵ If pharmaceutical companies are constantly anxious about competition and are worried that they cannot recoup their profits, they will probably invest less and drug development will be pushed backwards.

Given this context, the fact that competition authorities still put a great emphasis on the competition structure of the market when they investigate pharmaceutical mergers, means that competition structure assessment is here to stay and will be difficult to replace. In terms of formulating a new test for free high technology, the test must include competition structure assessment.

It would therefore appear, in our quest to find a test that fits in with the unique features of free high technology, we cannot formulate a test that completely bypasses an analysis of the competitive structure of the market. We therefore need to find a test which will involve some

⁵⁴ See Marcus Glader *Innovation Markets and Competition Analysis* (Edward Elgar 2006) 113; Development of drugs tend to involve three clinical phases (this entails human testing), each of which must be passed successfully before marketing of the drug is allowed. Phase 1 usually starts ten years before product launch and generally there is only a 10% chance of being successful. Phase 2 occurs some four to five years before launch and tends to involve a 30% success rate. Finally Phase 3 starts three years before launch usually with a 50% success rate.

⁵⁵ Claudia Desogus *Competition and Innovation in the EU Regulation of Pharmaceuticals; The Case of Parallel Trade* (Intersentia 2011) 12

analysis of the number of competitors in the market. However, as we will see next, the concept of the ‘market for innovation’ looks at innovation from a different angle. We will see that this type of market can actually allow us to convincingly and with coherence present the free high technology innovation market as a competitive market without having to paint the picture of a competitive market in the current product market. It also simultaneously allows us to retain the aspect of competition in our test. The next section therefore now turns to innovation market.

5.3 Innovation Markets

5.3.1 Innovation markets; a concept introduced by Gilbert and Sunshine

Gilbert and Sunshine brought the concept of innovation markets in focus.⁵⁶ An innovation market contains all research and development projects by companies that are substitutable with each other. Gilbert and Sunshine have set particular criteria to be followed in order for innovation markets to be formulated.

When it comes to mergers it must first be considered what the overlapping research and development projects are between the two merging parties.⁵⁷ Then one needs to detect other companies that are not only engaged in, but could potentially be engaged in the near future, in substitutable R&D projects.⁵⁸ Then, competition in the downstream market must also be taken into account. If there is a lack of competition in the downstream market or current product market, it may be an indication that there is more of an incentive to reduce R&D.⁵⁹

⁵⁶ R.Gilbert & S. Sunshine, ‘Incorporating Dynamic Efficiency Concerns in Merger Analysis: The Use of Innovation Markets’ (1995) 63 Antitrust L.J. 569

⁵⁷ Ibid

⁵⁸ Ibid

⁵⁹ Ibid

Then you have to measure their market shares in the innovation relevant market by calculating the amount of money spent on R&D.⁶⁰ Then we finally need to consider whether the merger would create any efficiencies in R&D.

Gilbert and Sunshine however appear to interpret that an innovation market can be quite wide in the sense that it tests how markets in which the merging parties at this very moment are not competing in yet.⁶¹ The competitive pressure in a R&D market for example, can come from various sources including companies from outside the industry which have the ability to engage in similar R&D or those who have just purchased assets that would allow them the capabilities.⁶²

Hence Gilbert and Sunshine are concerned with not only how, for example the main product market where the competitors are active in, but how they may potentially affect future markets.⁶³ They made this clear by distinguishing them from markets for future products and those for current products.⁶⁴ Considering innovation markets expands the narrative significantly.⁶⁵ They use the example of two sole producers of ingot in the market who are planning to merge.⁶⁶ Both companies also produce cable and lawn furniture using the raw material ingot. They both compete in cable in the entire world, but have separate geographical markets in lawn furniture.⁶⁷ A traditional merger analysis of the downstream products would simply reveal a reduction in competition in cable but no difference in lawn

⁶⁰ Ibid

⁶¹ Ibid

⁶² Ibid 590

⁶³ Ibid

⁶⁴ Ibid

⁶⁵ Ibid

⁶⁶ Ibid 580-586

⁶⁷ Ibid

furniture due to segregated geographical markets.⁶⁸ However, if they considered innovation markets, they figured there would be a reduction in R&D for producing ingot efficiently at lower cost and therefore there was a prevention of lowering production costs (subsequently leading to lower prices) of not only cable, but also of lawn furniture. Without the innovation market, the adverse effect on the lawn furniture market would not have been seen.⁶⁹

The Gilbert and Sunshine approach has, however, come under critical scrutiny. One of the stated problems with Gilbert and Sunshine is that it is premised on assumptions that may not be true; the assumption is that a concentration will reduce R&D incentives and reducing the number of R&D will reduce innovation.⁷⁰ Sometimes the problem is that price competition drives profits to a level where R&D cannot be invested in. Also R&D is risky in the sense that it is very uncertain whether it will lead to innovation in the first place.⁷¹ So when we speak of R&D we are not necessarily speaking of innovation, because the R&D may not translate into that. Being too concerned with the market for innovation has been criticized also on the basis that innovation is likely to be achieved only when companies pool their resources via mergers and joint ventures in the first place.⁷²

Although the Gilbert and Sunshine approach to and use of innovation markets have been criticized as we have just seen, the analysis of competition amongst substitute research and development projects has taken place in Commission investigations. We will see this in the

⁶⁸ Ibid

⁶⁹ Ibid

⁷⁰ See for example J Baker 'Fringe Firms and Incentives to Innovate' (1995) 63 Antitrust L.J 621 where the author states that R&D investment is only encouraged where there is market power on the part of the company, as it can then receive a great share of profits to perhaps offset the expensive risk taken by investing in R&D

⁷¹ See R Rapp 'The Misapplication of the Innovation Market Approach to Merger Analysis: The use of Innovation Markets' (1995) 64 Antitrust L.J 19, 27

⁷² See for example T Jorde & D Teece 'Innovation and Cooperation: Implications for Competition and Antitrust' (1990) 4 J Econ Persp 75 and J Ordober & R Willig 'Antitrust for High-Technology Industries: Assessing Research Joint Ventures and Mergers' (1985) 28 J.L & Econ 312

next section. This therefore allows us to consider this as a current tool used by competition authorities that may potentially be applied to free high technology investigations. We will next look at how the EU Commission has approached innovation markets.

5.3.2 Analysis of innovation markets

First thing to note is that the consideration of innovation markets is not without legal basis and is not merely a proposal. For example, the Horizontal Merger Guidelines states that where there is a merger between a company and another which is a potential competitor and where there is evidence that there is a significant likelihood that it will grow into a competitor but for the merger, it can be concluded that there will be significant anti-competitive effects (this is of course provided that in addition there is or would be an insufficient number of other current/potential competitors in the post-merger scenario).⁷³ Although this does not directly indicate the need to consider the market or competition over innovation, it asks the EU Commission to consider a set of factors which would logically include pipeline innovation projects. The existence of such projects for example would understandably count towards evidence as to whether or not one of the merging parties will enter a relevant market. In taking such factors into consideration one considers the same factors needed to in the analysis of an innovation market.

⁷³ Council Regulation (EC) of 5 February 2004 on Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (2004/C 31/03) [2004] OJ C 31/5 paragraphs 58-60

One of the obvious issues however, is to what extent one can assess the ‘significant likelihood’ as required by the Horizontal Merger Guidelines from pipeline products in their very early phases of development; there will always be a great level of uncertainty as to the success of any innovation/development project.⁷⁴ However, the EU Commission went on to show that assessments based on early stages could be carried out.

The first pharmaceutical case to show this was *Novartis/GSK Oncology* where the EU Commission took into consideration two early phase products each developed by each of the merging parties to conclude that should the products eventually reach market, they would be substitutes.⁷⁵ The EU Commission concluded that in the post-merger scenario there would only be one other company that would have a similar R&D project and therefore there would be a reduction in innovation competition leading to a reduction in competition in the new so to speak future product market.⁷⁶ Hence, innovation markets definitely have a legal basis but also can involve the analysis of R&D projects whose chances of success are uncertain.

Such cases on pharmaceutical mergers can provide us with a very good insight into how future innovation that is not yet in complete existence is assessed; in other words we are going to look at innovation markets. By looking at how innovation is analysed in such cases we can gain an idea on how far the analysis is capable of going in a case concerning free high technology. The basic approach to innovation markets is to ensure that there is a sufficient

⁷⁴ F Have, J Martinez & E Demertezi ‘The European Commission’s Pharmaceutical Merger Control Practice: an overview of the state of play’ (2016) 39(1) World Compet. 85, 106

⁷⁵ *Novartis / GlaxoSmithKline Oncology Business* (Case COMP/M.7275)[2015] paragraph 89 available at http://ec.europa.eu/competition/mergers/cases/decisions/m7275_20150128_20212_4158734_EN.pdf accessed on 30th September 2017

⁷⁶ Ibid

number of projects aimed at development and innovation.⁷⁷ Hence, it would generally appear that there is a negative presumption associated with any further concentration in the any area of innovation. Examples of cases where the authorities acknowledge a high level of concentration in an innovation market but still conclude that there will be anti-competitive effects appear rare.⁷⁸

5.3.3 Analysis of innovation markets and the conventional assumption of more competition being good for consumer welfare

Innovation markets have been analysed very often in the form of R&D markets. In this section we therefore aim to assess how R&D is analysed as a market.⁷⁹ In doing so we will more importantly discover how the analysis still basis itself on the idea of more competition being good for consumer welfare. This is a good thing for our purpose of finding a test suited to free high technology. We have noted how it would be too radical and controversial at this stage to propose any test that scraps the presumption that more competition is good for consumers. Any acceptable test will therefore have to incorporate and implement this idea. We therefore show in this section how innovation markets very much safely conform to this presumption.

⁷⁷ Commission Notice — Guidelines on the applicability of Article 81 of the EC Treaty to horizontal cooperation agreements [2001] OJ C003 paragraph 51

⁷⁸ Quite a stark example does not even come from Europe but from the United States. See *Genzyme/Novazyme Pharmaceuticals, Inc*, File No. 021 0026, Closing letter., January 13, 2004; both companies were engaged in very early stages of research into the treatment of Pompe disease. Novazyme's treatment specifically showed some good promise. There were no other firms developing treatments like these two entities. Despite the obvious concentration in the innovation market for this treatment, the FTC did not find any anti-competitive effects and closed the investigation. It was stated that the effects on innovation cannot be inferred simply by counting the number of other similar development programs in the market. More important questions were whether R&D would be more successful through the merger and whether there was any reduced incentive post-merger to work on those R&D programs. There were two dissenting opinions on this case both reflecting surprise at the fact that a monopoly was allowed to be created.

⁷⁹ Although this is not necessarily the formal term given by the authorities to describe the analysis of research and development

The EU Commission, through its decisions, has expressed the aim to ensure that there is competition in the area of research and development; this can be considered as a market for innovation. For example, in *Glaxo Wellcome/SmithKline Beecham*⁸⁰ the EU Commission was not very concerned with the research and development of anti-migraine medicine; whilst SmithKline (SK) already had a pipeline product in phase II⁸¹ and Glaxo Wellcome (GW) had two products in the market, SK committed to licencing out its compounds in anti-migraine to other entities who could continue the research/development.⁸² Hence, there is less of a chance of reduction of competition in R&D in that field as the licensee of those compounds will become the new competitor.⁸³ In terms of the research and development of treatment of colorectal cancer there were no major concerns either; both companies had products in phases II and III but did not have a large market share and there were other key players engaged in research and development in the area.

The EU Commission considered in *GlaxoWellcome* that in terms of R&D in second line therapies of chronic obstructive pulmonary disease (COPD) there were at least three other competitors with competing products in the pipeline. Despite this, the EU Commission concluded that Glaxo's market power would be further entrenched in the market taking into consideration the merger with SB and there was always the possibility of the competing products failing. It appears that the need for a larger number of competitors in the market outweighed the fact that there were already competitors with competing products in the same

⁸⁰ *Glaxo Wellcome/ Smithkline Beecham* (Case No COMP/M.1846) [2000] available at http://ec.europa.eu/competition/mergers/cases/decisions/m1846_en.pdf accessed on 30th September 2017

⁸¹ Ibid

⁸² Ibid

⁸³ Ibid

phases of development; more competition appears to bring a better chance of a successful innovative product.

Another EU investigation which takes into consideration products still under nascent stages of development is *Upjohn/Pharmacia*.⁸⁴ The EU Commission considered research and development in areas such as solid tumours.⁸⁵ Pharmacia's product under development for tumours was expected to come out in six years time.⁸⁶ It was expected that by that period it would face competition from other products that were also simultaneously under development at the time.⁸⁷ The conclusion was therefore that there would be no creation or increase of a dominant position in the research and development of solid tumours.⁸⁸

We therefore see how in EU investigations competition between research and development projects is considered an important aspect in the final decisions of the authorities. So far we have seen this sort of analysis in pharmaceutical and medical industries. However as we will see next, this type of analysis can also take place in other industries and therefore is not prevented from having wider applications.

In the US there have also been cases considered by the Federal Trade Commission (FTC) where innovation markets have been considered within the context of technology as opposed to pharmaceuticals. For example, in *Sensormatic*⁸⁹ two manufacturers (namely Sensormatic and Knogo) were present in the market for electronic article surveillance in retail stores.

⁸⁴ Case No IV/M.631- *Upjohn/Pharmacia*. OJ C 294/9 (1995)

⁸⁵ *Ibid*

⁸⁶ *Ibid*

⁸⁷ *Ibid*

⁸⁸ *Ibid*

⁸⁹ Sensormatic Electronics Corporation (FTC File No. 941 0126)

Under an agreement Sensormatic would acquire all Knogo patents for a new type of technology known as ‘Superstrip’ outside of North America.⁹⁰ Knogo would then have a non-exclusive license to ‘Superstrip’ and would continue developing it. Furthermore, the two companies agreed to cross-license any improvements made on the technology by either company⁹¹. Superstrip was considered a new generation product whereby the manufacturers themselves could install the appropriate security devices themselves (also known as source labelling), instead of the retailers having to do so.⁹² The FTC considered the markets for research and development of disposable labels developed for source labelling and R&D in the processes to manufacture these disposable labels. It came to the conclusion that, given the patent protection, it would be difficult for others to enter this market and compete.⁹³ An agreement such as this between the two companies would not provide an incentive for Knogo to invest in such R&D due to reduced competition in the market; overall R&D would be reduced for a product that was not in the market yet. Sensormatic was prohibited from acquiring the patents in US and Canada, but could only attain a non-exclusive license to it. We can see that in the field of technology, one can also analyse products in development which have a potential future market, but which is not currently in existence.⁹⁴ The research and development of and the bringing to the market of new products can be a concern for the authorities (at least in the United States). However, the FTC could have also included R&D of alternative security solutions into the same market for R&D of source labelling; the alternative future products could have restrained any attempts at anti-competitive behaviour by the dominant players.⁹⁵

⁹⁰ Ibid

⁹¹ Ibid

⁹² Ibid

⁹³ Ibid

⁹⁴ Ibid

⁹⁵ Marcus Glader *Innovation Markets and Competition Analysis* (Edward Elgar 2006) 132

In this section we have established therefore, that the innovation market analysis is still also a form of competition analysis very much concerned with the amount of competition in a market. Hence, suggesting the use of it fits neatly into the general narrative that competition is good for consumers. We therefore have one good reason so far to be using this test and can therefore consider it viable. Before we apply the innovation market test to free high technology, there is one more criteria we need to consider to be able to assess innovation market analysis as a viable test. We will next look at the standard of proof associated with the analysed R&D projects.

5.3.4 Analysis of innovation markets and standard of proof associated with R&D projects

One of the problems that we have mentioned associated with innovation markets is the fact that R&D projects could be at different stages of development and there could be considerable uncertainty as to whether the development will turn into a successful product/service. With free high technology markets, analysing the different innovation efforts may also be associated with the same problem of uncertainty. So one obvious issue is ensuring that any test we propose for free high technology reaches an acceptable standard of proof. In this section we consider cases that have looked at innovation markets and what sort of standards are to be reached in terms of including a research and development project in the market.

Assessment of research and development can be detailed. For example, in *Glaxo Wellcome*⁹⁶ the EU Commission took into consideration the specific categories of research and development within the specified area of COPD. It was found that Glaxo Wellcome and Smithkline Beecham had pipeline products in this area, but also that each product was differentiated in terms of effectiveness and particular types of COPD treatment. Furthermore, the EU Commission considered that existing products were not of great quality and hence there was an attractive research and development market for it. It was concluded that it was unlikely that the research and development would be reduced by the parties because of this and the fact that the R&D in this case was slightly differentiated and because there was a sufficient number of competitors.⁹⁷ We therefore see that in terms of standard of proof, the quality of existing products may be considered, but the chances of success from relevant and competing R&D projects do not have to be proved to a great extent.

The notion that proof of success does not have to reach a high standard is reflected in other cases as well. In *Pfizer and Pharmacia*⁹⁸ Pfizer had a dominant erectile dysfunction medication known as Viagra using what was known as PDE-5 inhibitors.⁹⁹ Although a number of companies were developing similar types of medication using these specific inhibitors, Pfizer was in the middle of patent litigation against these competitors; Pfizer had a broad patent over the PDE-5 inhibitor.¹⁰⁰ Should Pfizer win the litigation it would become virtually a monopolist in the area of medication for erectile dysfunction and a merger with Pharmacia (which was developing competing medication) would only strengthen Pfizer's

⁹⁶ *Glaxo Wellcome/ Smithkline Beecham* (Case No COMP/M.1846) [2000] available at http://ec.europa.eu/competition/mergers/cases/decisions/m1846_en.pdf accessed on 30th September 2017

⁹⁷ Ibid

⁹⁸ *Pfizer/Pharmacia* (Case No COMP/M.2922) [2003]

http://ec.europa.eu/competition/mergers/cases/decisions/m2922_en.pdf available at 30th September 2017

⁹⁹ Ibid

¹⁰⁰ Ibid

monopoly power.¹⁰¹ There were competitors who had non-PDE-5 inhibitors in development, but they were at such a nascent stage that their success could not be predicted.¹⁰² Hence the EU Commission resolved the issue by making the merger conditional upon Pharmacia divesting its research and development in erectile dysfunction medication to ensure competition.¹⁰³

In terms of the depth the EU Commission goes to make conclusions, there could have been a good possibility that the drugs in development by Pharmacia could have eventually failed meaning that by divesting them to a competitor of the merged entity would not lead to any successful competitive pressure.¹⁰⁴ It goes to show that the strength of the evidence of the quality of a product and/or likely success of a product does not have to reach a high threshold. We also see this in other cases. In *Tetra Pak Rausing SA v Commission*¹⁰⁵ for example, Tetra Pak acquired Liquipak which held an exclusive license over a new technology for milk packaging that was still under development. The technology for packaging was considered to potentially make a breakthrough in the market.¹⁰⁶ With Tetra Pak's dominance in liquid food packaging machines it was said that the acquisition was likely to prevent entry from competitors; this is despite the fact that there was some uncertainty as to what stage of development the technology was in.¹⁰⁷ It was held that there was an abuse of a dominant position.¹⁰⁸

¹⁰¹ Ibid

¹⁰² Ibid

¹⁰³ Ibid

¹⁰⁴ Marcus Glader *Innovation Markets and Competition Analysis* (Edward Elgar 2006) 122-123

¹⁰⁵ T-51/89 *Tetra Pak Rausing SA v Commission* (Tetra Pak I) [1990] ECR II-309

¹⁰⁶ Ibid

¹⁰⁷ Ibid

¹⁰⁸ Ibid

One thing we understand now having looked at the different cases, is that innovation markets need only include the existence of research and development projects. How successful the research and development project will become in terms of manifesting in a real tangible innovation does not appear to be an important factor in determining whether the R&D project should be included as a competitive force. Similarly, if we were to apply innovation markets to free high technology, we would not require strong evidence of the prospects of success of any innovation/R&D projects. As long as they are substitutable, they can be included into the innovation market. The relatively low threshold to be included as an effectively competing R&D project means that the innovation market is more likely to be competitive in free high technology markets. We will discuss this further in the next section.

5.4 The application of innovation markets in free high technology

5.4.1 How an innovation market can help with formulating an appropriate test for free high technology

An innovation market would typically be a lot broader compared to a conventional product market.¹⁰⁹ Given our discussions, this is quite understandable. It is difficult to predict how successful particular innovations at early stages of development will eventually be. There is a chance that only a small number of R&D projects will culminate in a product that will enter the product market. Hence the R&D/innovation market is likely to be much wider and contain more substitutes than the final product market.

¹⁰⁹ R Gilbert & S Sunshine 'The Use of Innovation Markets: A Reply to Hay, Rapp and Hoerner' (1995) 64 Antitrust L.J 75, 81

Another reason that they are likely to be wider is because of the fact that in really early stages of development it is difficult to predict which type of products the research may help with at the end. The research may end up assisting in a completely different type of product.¹¹⁰ Hence the innovation market may, again be much wider than the ultimate product market.

Similarly, in the high- technology industry there is more likely to be more companies trying to make innovations in a particular product than actually on the product market. We consider this in more detail in the next section. Hence, the market share of the dominant search engine or social network in the innovation market is genuinely lower and therefore as long as there are a number of competitors putting in innovation effort there is competition in innovation to the benefit of consumers. For example, in *Glaxo Wellcome/SmithKline Beecham* when the EU Commission discussed the innovation market related to COPD, a variety of R&D programmes were considered as competitors; the competitors were at different stages of development as well.¹¹¹ However, when it came to assessing the current product market in existence and the effects on it emanating from the merger, only a limited number of products close to the final stages of development/testing (stage 3) were considered as possible constraints in the market. The point is that if we simply consider the innovation market in free high technology, the market is genuinely wider and will have more competitors. In that way the EU Commission can convincingly build the picture of a competitive market, making the parties in question appear less dominant.

¹¹⁰ Ibid 212

¹¹¹ *Glaxo Wellcome/ Smithkline Beecham* (Case No COMP/M.1846) [2000] available at http://ec.europa.eu/competition/mergers/cases/decisions/m1846_en.pdf accessed on 30th September 2017

5.4.2 Innovations in the free high technology industry

Before we can suggest an analysis of any innovations in the free high technology market, we need to have a look at whether there is any impediment to access information on innovation. Unlike the pharmaceutical industry, research and development in the high tech industry is far more clandestine and less transparent; there may not be a great amount of transparency in the free high technology field in terms of research and development.¹¹² Innovations are often announced and implemented/put out in the market suddenly.¹¹³ This is an understandable strategy to keep ahead of the competition. If this is the case it would be hard to predict with accuracy what a competition law analysis of innovation in the industry would look like at this point.

However, from our general knowledge about free high technology markets, we can gain an idea of how the innovation market might look like. For example, the top search engines and social networks were born out of some informal collaboration between friends and creators' dorm rooms.¹¹⁴ So who knows, there may be a multitude of individuals in the world trying to build a smarter search algorithm or a higher quality social network. Unlike the pharmaceutical industry, research and development does not require expensive licenses,

¹¹² Following are examples that demonstrate the highly secretive nature of innovations in the free high technology market. See Daily Mail Reporter 'Apple Engineers tell how company guards its secrets by asking them not to speak to their WIVES and monitoring each prototype with iTrack' (MailOnline 28 May 2013) <http://www.dailymail.co.uk/sciencetech/article-2331937/Apple-engineers-company-guards-secrets-demanding-employees-talk-WIVES-monitors-prototype-iTrack.html> accessed 3rd April 2017; Nick Statt, 'Apple reportedly has hundreds of people working on a secret virtual reality team' (The Verge, 29 January 2016) <http://www.theverge.com/2016/1/29/10871228/apple-secret-virtual-reality-team-report> accessed 3rd April 2017. Contrast this with pharmaceutical companies like Pfizer and GSK where they openly list their projects on their websites. See for example, http://www.pfizer.com/research/science_and_technology/product_pipeline and <http://uk.gsk.com/en-gb/research>

¹¹³ See for example Henry Blodget, 'Ignore The Screams--Facebook's Aggressive Approach Is Why It Will Soon Become The Most Popular Site In The World' (Business Insider/Tech Insider 17 May 2010) < <http://www.businessinsider.com/facebook-privacy-innovation-2010-5?IR=T>> accessed on 3rd April 2017. Whatsapp suddenly released Snapchat-like features with a few days' notice, see Parmy Olson 'Whatsapp changes everything with its new "status" feature' (Forbes 20 February 2017) < <https://www.forbes.com/sites/parmyolson/2017/02/20/whatsapp-status-snapchat-snap-stories/#4751f7c94e1f>> accessed 3rd April 2017

¹¹⁴ It is common knowledge that the creators of Facebook started the social network in their dorm room.

patents and years of trials. Hence, it is still reasonable to include all those various smaller enterprises in the innovation market.

Even without the specific detection of all these different projects that may be brewing outside the public or industry's eye at the moment, it is probably safe to conclude that the free high technology industry would involve lots of competing research and development projects. This is because many established high technology companies that are potential competitors regularly and openly try to compete. There are various examples of how free high technology companies regularly attempt to enter other markets that also involve free high technology. For example, Instagram, a social website (also mobile site) involving photo-sharing recently introduced a feature allowing short videos recorded easily and quickly by users on their mobile phones to be shared with users. This has been said to be a feature which Snapchat had become known for.¹¹⁵ Facebook introduced 'Facebook Live' which allows users to make live broadcasting videos via their smartphones.¹¹⁶ This had originally been introduced by an application known as Periscope.¹¹⁷ Viber, originally a voice/messaging communication application and Facebook (fundamentally known for social networking) have both introduced online video chat, a market historically dominated by Skype and Facetime for Apple Smartphone users.¹¹⁸ Amazon introduced Echo, a smart home assistant that runs on Bing's search engine. Google then recently introduced its own smart home assistant speaker.¹¹⁹

¹¹⁵ Baldwin Cunningham 'Snapchat vs Instagram stories: What Business Owners need to know' (*Forbes* 25 April 2017) <<https://www.forbes.com/sites/baldwincunningham/2017/04/25/snapchat-vs-instagram-stories-what-business-owners-need-to-know/#123e33095fe2>> accessed 29 June 2017

¹¹⁶ Alex Hern 'Facebook Live is changing the world- but not in the way it hoped' (*The Guardian* 5 January 2017) <<https://www.theguardian.com/technology/2017/jan/05/facebook-live-social-media-live-streaming>> accessed on 29 June 2017

¹¹⁷ Ibid

¹¹⁸ Nadeem Unuth 'Skype vs Viber: Which is better' (*Lifewire* 14 April 2017) <https://www.lifewire.com/skype-vs-viber-3426404> accessed on 29 June 2017

¹¹⁹ Andrew Gebhart 'Google Home vs Amazon Echo, round 2: Google strikes back' (*Cnet* 18 May 2017) <<https://www.cnet.com/uk/news/google-home-vs-amazon-echo/>> accessed 29 June 2017

Furthermore, there are definitely examples where companies like Google and Facebook regularly publish a lot of their scientific/technical research openly directly on their websites.¹²⁰ Hence, an authority like the EU Commission would likely have access to information on the competing R&D projects of the various competing technology companies. In other words, there would be no hindrance in finding out necessary information to find out the nature of the innovation markets in free high technology markets.

Given these examples, whilst there are companies that will possess power within a particular market, in the market for innovation they are faced by other large competitors who are also just as able to compete. We can therefore reasonably envisage (even without taking into consideration the smaller entities trying to enter the market) a good number of dominant platforms holding market power in their own specific markets but regularly competing to gain entry into each other's markets.

In the above examples, there was obviously research and development going on behind the scenes before a lot of the companies entered a new market. Hence, if we do an innovation market analysis, the company who has market power in the current product/service market may not appear to have it in the innovation market. In the innovation market we have no idea as to eventually what market shares the companies will receive in the future if their innovations come to market. Instead, all research and development projects would be considered to present competitive pressure on the incumbent.

In an innovation analysis questions about, for example, network effects would be less relevant. The innovation market is simply concerned with the number of and nature of

¹²⁰ See <https://research.fb.com/publications/> and <https://research.google.com/>

players in the market competing against each other for research and development. For example, in the pharmaceutical industry in terms of the innovation market the EU Commission would be mainly concerned with who controlled and owned the assets required as inputs for research and development; if there were various players who could provide the inputs then competition concerns are alleviated.¹²¹ In the free high technology industry there is unlikely to be assets completely necessary for research and development.

5.4.3 Resources needed to succeed in free high technology market

In having a closer look at innovation markets, we have also seen how innovation can be extremely costly, slow and uncertain in the pharmaceutical industry. It is quite understandable that many innovation markets in the pharmaceutical industry would be highly concentrated. But how would innovation markets in the free high technology market look like instead? In order to answer this question the obvious thing to do is to consider what current innovations are being worked on by high technology companies. However, scrutinizing and assessing the various published information about R&D in these companies to understand what the innovation market would look like falls beyond the scope of this thesis. Instead, one way to predict the likely nature of the innovation market is to look at what is required during the innovation/development stages of free high technology companies in order for them to eventually create a viable business. What we will see in doing so is that the resources required for innovations in the stages before a free high technology company to become large and sustainable are not as vast as you would need in more traditional industries. Hence, the

¹²¹ Marcus Glader *Innovation Markets and Competition Analysis* (Edward Elgar 2006) 216

innovation market is likely to be less concentrated, also given the ease with which potential entrants can start a competing R&D project.

Successful high technology platforms (including free ones) that operate online and eventually become worth a lot of money through creating lots of value for its users are not those that actually produce the demanded products and services.¹²² Instead, successful platforms are the ones who can enable the producers of products/services to easily and efficiently connect with those consumers who want those products and services and vice versa.¹²³ Search engines connect search users to information published by independent content producers and advertisements; search engines do not produce or own the content that users search for. Social networks connect users to content (such as pictures and videos) created by other users. An accommodation booking site connects people to those who provide accommodation; the booking site does not own any of the accommodation. The task of connecting two groups of individuals/entities is much less costly than producing and transporting the goods and services yourself; hence, the high technology platforms have much lower fixed costs.¹²⁴ In addition, once the original version¹²⁵ of a web/mobile application is made, copying it and redistributing it over the internet costs next to nothing to the point that such companies have been dubbed ‘the zero marginal cost company’.¹²⁶ The general trend has been for start-ups to be able to provide better quality products at increasingly lower costs.¹²⁷

¹²² A Moazed & N Johnson *Modern Monopolies; What it Takes to Dominate the 21st-Century Economy* (St Martin’s Press New York May 2016) 28.

¹²³ Ibid Furthermore the author uses the example of Pets.com which owned its own warehouses from which it delivered Pets related goods. The fixed costs were very high to begin with. In contrast, eBay built an online platform connecting separate producers to various consumers. It did not have to deal with transport or warehouse costs. Its sole job was to connect the two relevant parties. Pets.com did not survive whereas eBay went on to become a lot more successful.

¹²⁴ Ibid 79 Start-up costs are lower than ever.

¹²⁵ Ibid 85- The original version can cost up to \$250,000. But this is not much compared to, for example, the millions of dollars and extensive time periods that go into developing a new drug

¹²⁶ Ibid 79

¹²⁷ Ibid 80

This is not to deny that there are costs involved in getting a platform on its feet. A high technology platform needs to be able to build a wide regular audience before the network effects can become active and then allow the platform to grow exponentially by itself. For example, Uber, the transportation mobile application, started off by paying drivers to be available to customers on demand to ensure that they had some guaranteed rides for customers.¹²⁸ This had to be done before it could get enough willing drivers on the application. Hence, sometimes ‘money subsidies’ need to be provided to get a platform going.¹²⁹ However, they are nominal in comparison to the million dollar figures heard of in the pharmaceutical industry.

So what do the comparative low costs for start-ups in the high technology industry trying to introduce a new product in the market say about a high technology innovation market? It is most likely to be a competitive one given how relatively easy it is to have innovation activity going on without the need for specific unique assets owned by a few. Whether or not the innovation efforts will be a successful one is a separate one. As Gilbert and Sunshine state:

‘If innovation directed to particular products or processes does not require specific assets, entry into R&D would be easy and the innovation market would be competitive’¹³⁰

¹²⁸ See Brad Stone *The Upstarts: How Uber, Airbnb and the Killer Companies of the New Silicon Valley are changing the World* (Little, Brown and Company 2017)

¹²⁹ Alex Moazed & N Johnson *Modern Monopolies; What it Takes to Dominate the 21st-Century Economy* (St Martin’s Press New York May 2016) 196

¹³⁰ R Gilbert & S Sunshine, ‘Incorporating Dynamic Efficiency Concerns in Merger Analysis: The Use of Innovation Markets’ (1995) 63 *Antitrust L.J.* 569, 596

Hence, given the trend we saw in the previous sub-section of dominant firms attempting to enter each other's markets and the relatively low cost for research and development, it is likely that it is easier to start off R&D projects in the free high technology sector and it would therefore likely be more R&D projects at any given time.

5.4.4 Application of innovation market analysis to free high technology investigations

We have now established that free high technology involves constant multiple innovation efforts that can come from new low profile entrants to highly established companies. We also have seen that one of the reasons behind this is the low capital costs required in such markets. Hence, a free high technology innovation market is likely to be much more competitive than a pharmaceutical innovation market. As we have seen, the competition authorities feel that research and development can be limited when it comes to pharmaceutical mergers. The innovation market can be quite concentrated in this sense. With the pharmaceutical industry however, there are quite specific reasons for this. Carrying out innovations in the pharmaceutical sector, as discussed, involve years of research and development and therefore involve costs of magnanimous proportions; there is also arguably a low rate of success. Furthermore, companies protect their processes, which are necessary ingredients for innovations, through strong patent protection.¹³¹ Hence, everyone else is prevented from using the same processes without permission from the patent owner; duplication of innovations is therefore less likely as it might be in other industries with less patent protection.¹³² The innovation market is therefore likely to be concentrated.¹³³ Furthermore, it

¹³¹ Michael Carrier *Innovation for the 21st Century: harnessing the Power of Intellectual Property and Antitrust Law* (Oxford University Press 2009) 298

¹³² Ibid

¹³³ Ibid

has been suggested, because the pharmaceutical research and development of competitors are always transparent, companies are more likely to merge or do joint research to make the research more efficient.¹³⁴ In turn, this leads to further concentration in the market.¹³⁵

There is, however, some guidance that may prevent the innovation market in free high technology being competitive despite a high number of alternative innovation efforts. There appears to have been suggestions that where a competitor in the innovation market has a high market share in the current product market, the competitor is likely to have more market power in the innovation market as well. This could pose a problem for our purpose of finding a test that convincingly portrays a free high technology market to be genuinely competitive.

The EU Commission's 'Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements' explains how the market share in current product markets can affect the interpretation of their potential power in the innovation market.¹³⁶ Although the guidance specifically relates to agreements under Article 101, it provides us a good insight into the EU Commission's attitude towards innovation markets in general and how it could therefore possibly view such markets in an investigation of a merger or unilateral action. It states that when it comes to innovation markets, where the research and development is aimed at improving or replacing the current products/services then the market share in the current products/services is to be considered as an indication of the competitive position of the parties in that innovation market.¹³⁷ It is only

¹³⁴ Bjorn Lundqvist *Joint Research and Development under US Antitrust and EU Competition Law* (Edward Elgar Publishing 2015) 19

¹³⁵ *Ibid*

¹³⁶ Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements (2011/C 11/01)[2011] OJ C11/1

¹³⁷ *Ibid* Para 124

when the R&D efforts targeted towards a completely new product occurs that the competitive position of the incumbent cannot be assessed through its market share in the current product market.¹³⁸

Hence, if the authority were to investigate a dominant search engine's innovation market, it would state that it had too much market power in the innovation market based on its dominant share in the current search market; hence any merger or unilateral action that could increase that market power would probably not be allowed. However, one may interpret a product to be new if it replaces, but also renders the previous product obsolete. For example, one could say that search engines have replaced the Yellow Pages. Search engines are a completely new product in the sense that they operate with much more efficiency, but they have also carried out the task of replacing a previous product. Hence a product that replaces could also be very new in which case market share in the current product market does not have to be taken into consideration as an indicator of what the power in the innovation market is.

Furthermore, it has been observed that generally, market share is not attributed in innovation markets.¹³⁹ Hence, where an incumbent company has high current market share in the current product market, that high market share cannot be used as a good indication of market power in the innovation market. Instead, competition authorities in the market are more likely to consider other factors such as the quality of the different R&D, stage at which the products

¹³⁸ Ibid Para 126

¹³⁹ Marcus Glader *Innovation Markets and Competition Analysis* (Edward Elgar 2006) 220

are and access to resources¹⁴⁰ and critical assets.¹⁴¹ We can therefore safely predict that innovation markets related to free high technology are likely to be competitive.

4.4.5 Effect of innovation markets on final decision of Competition authorities

There has been suggestion that the consideration of innovation markets is only ancillary and supportive of current product market analysis; it is current product market analysis which determines the outcome of an investigation or case at the end of the day.¹⁴² For example, in cases such as *Crown Cork* and *Montecatini* market share in the current product markets of the merged entities would be quite high; they would be at least above 60%.¹⁴³

However, there are examples where the innovation market aspect of the case has had a wider influence on final decisions. For example, in *Boeing/McDonnell Douglas* the EU Commission considered McDonnell Douglas to be a company that was able to apply competitive pressure in the market because of its innovative efforts in the area of commercial aircraft despite its low and decreasing market shares in the current product market of large commercial aircraft.¹⁴⁴ McDonnell Douglas possessed 150 patents relevant to large

¹⁴⁰ Ibid

¹⁴¹ Joseph Kattan 'Antitrust Analysis of Technology Joint Ventures: Allocative Efficiency and the Rewards of Innovation' (1993) 61 Antitrust L.J 937, 954

¹⁴² See for example, R Gilbert & W Tom 'Is Innovation King at the Antitrust Agencies? The Intellectual Property Guidelines Five Years Later' (2001) 69 Antitrust LJ 43,44. It is important to note that this article deals with merger cases decided in the United States. However it is also referred to in Marcus Glader *Innovation Markets and Competition Analysis* (Edward Elgar 2006) 227, where the author mentions this along with mentioning European cases where product market analysis appeared more important.

¹⁴³ See *Crown Cork & Seal/CarnaudMetalbox* (Case No IV/M.603) [2014] available at http://ec.europa.eu/competition/mergers/cases/decisions/m7104_1396_2.pdf accessed on 23rd September 2017, *Shell/Montecatini* (Case No IV/M. 269) [1994] available at http://ec.europa.eu/competition/mergers/cases/decisions/m269_en.pdf accessed on 23rd September 2017

¹⁴⁴ *Boeing/McDonnell Douglas* (Case No IV/M.877) [1997] available at http://ec.europa.eu/competition/mergers/cases/decisions/m877_19970730_600_en.pdf accessed on 7th October 2017, Paras 33 & 34- for example, market share of McDonnell Douglas fell to as low as 2% in the market for large commercial jet aircraft in Europe

commercial aircraft and these, along with the patents owned by Boeing, were considered to be vital for future development of technology.¹⁴⁵ The company regardless of its tiny market share in commercial aircraft was considered to be able to provide potential competitive pressure on the Boeing's dominant position.¹⁴⁶

This is also supported by the 2004 EU Horizontal Merger Guidelines which states that companies with relatively small market share can be an important competitive constraint if they have 'promising pipeline products'.¹⁴⁷ Could this lead to the conclusion that competition authorities would be willing, with supportive evidence, to find companies with very high market share in the current product market to have lower market power in the innovation market? Well we have seen the high viability of this approach reflected throughout Chapter 3 in terms of the EU Commission's approach to free-high technology markets. They consider the constant innovation in the industry to be a threat to anyone with current high market shares (although, as seen in Chapter 3, it is not argued in the most convincing way).

Either way, this creates uncertainty over what type of results the application of innovation markets in the free high technology markets may have in two ways. Firstly, as mentioned, there is a good chance that the end result will very much be determined by the level of market power in the current market as opposed to the innovation market. In most of the cases we have seen, the lack of competition in the innovation market coincided with a high concentration in the current product market.

¹⁴⁵ Ibid Para 102

¹⁴⁶ Ibid Para 120

¹⁴⁷ Guidelines on the applicability of Article 81 of the EC Treaty to horizontal cooperation agreements (2001/C 3/02) O J C003- see paragraph 38

Secondly, competition analysis will tend to include the consideration of several markets. Hence, we cannot look at the innovation market in isolation and ignore analysing the current product market. This means that in free-high technology investigations, when a proper analysis takes place, we will have on the one hand a current product market where the conclusion is that there is very high market power which is more likely to lead to an abuse of dominance or significant reduction in competition post-merger; on the other hand we are likely to see a simultaneously competitive innovation market. But as long as there is a finding of high market power in one market, there is still a very good chance that an abuse of dominance can be found. In that case, our hope to use the innovation market as a tool to lead to the conclusion of a highly competitive market without having to show that they have low market power in the current product market is obliterated.

We therefore need to consider whether there is any form of analysis in competition law that would allow us to consider the innovation market in relatively more isolation. Next, we therefore look at a particular consumer harm test which narrows the focus on and analysis of the creation of a new product. The test asks whether a potentially abusive practice prevents the emergence of a new product. We will explore this in detail and see how well it can fit in with free high technology.

5.5 The *Magill* test

Harm to consumers¹⁴⁸ is a factor taken into consideration in competition analysis; however this is usually in the context of discussing how a reduction in competition would adversely

¹⁴⁸ This refers to a lowering of benefits to consumers/consumer welfare in the form of prices, innovation and quality of the concerned product/service.

affect quality and innovation to the detriment of consumers as opposed to directly assessing other factors such as the actual ability of the companies to innovate. We saw this in Chapter 3. Historically however, there has been one particular test in competition law that directly asks whether an action on the part of the dominant firm leads to the prevention of a specified new product from entering a new market; unless it can be shown that there will be a prevention of the appearance of a new product in the market to the benefit of consumers, the dominant entity can continue with its otherwise anti-competitive practices even if the consequence involves a possibility of a reduction of effective competition in the market.¹⁴⁹ One can already see how this should be appropriate for free high technology cases in the sense that it likely involves dominant firms creating innovative product even in the absence of competition. This test appears to address these unique features of free high technology. The test was set out in the *Magill*¹⁵⁰ case. In this chapter we will consider the *Magill* test in greater detail to not only understand it better, but whether the case law as it stands could technically allow the application of this test in free high technology cases.

One of the obvious roadblocks we will see with the use of this test in free high technology investigations is the fact that at first it appears to only be applicable to cases where an intellectual property right is refused access to by the defendant company, the existence of an intellectual property being paramount. We will initially see that it is the, so to speak, sacred intellectual property right that can only justify the special features of the *Magill* test.

However, subsequent cases¹⁵¹ seem to suggest that the existence of the intellectual property

¹⁴⁹ We will see in this chapter that the particular action (in these cases refusal to supply) on the part of the incumbent must risk elimination of competition in order for that action to be illegal. Hence, a potential reduction in competition is not enough; the potential complete elimination is.

¹⁵⁰ Joined cases C-241/91 P and C-242/91 P *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v Commission of the European Communities* [1995] ECR I-00743

¹⁵¹ For example, Case T-201/04 *Microsoft v Commission* [2007] ECR II-3619

right is not important after all and that the *Magill* test is simply another alternative test that can be used to determine whether there is an abuse of a dominant position. This can be seen as the subsequent case law erodes that strict requirements of the elements of the test. For example, we eventually find that a product does not have to be completely new and an intellectual property does not have to be completely indispensable to the continued existence of a competitor in order to find an abuse. These elements of ‘newness’ and ‘indispensability’ get watered down in the subsequent case law, showing that the existence of an intellectual property right need not involve a special test. And because of this, we then have more liberty to apply the *Magill* test to other situations potentially involving an abuse of a dominant position. Hence we can apply it to free high technology investigations as well.

Therefore, in this section we will be going through both *Magill* and other cases that involved similar facts to it to see how the requirements of the test were watered down. Only by doing this can we understand how the involvement of a refusal to access an IP right is not necessary and therefore justify using the *Magill* test in free high technology investigations.

5.5.1 Elements of the *Magill* test

In section 3.3.2.2 we discussed the facts and judgement of the *Magill* case from which we can extract the elements of the *Magill* test. The test can be formulated as follows:

A refusal to license an intellectual property right to an entity is abusive when

- a) the IP right is indispensable to the production and marketing of a new product, for which there is potential consumer demand on an ancillary market and
- b) competition is completely excluded in the ancillary market due to the refusal.

5.5.2 Why the *Magill* test? Foundational values of the consumer harm test and free high technology

We note that involvement of intellectual property rights is required in order for this test to be applicable. As we will see, it has also been argued that this special test was formed to ensure that there would be a good balancing exercise between the potential conflict of interest brought about by on the one hand intellectual property rights (which provide the rights holder with a monopoly over the IP) and on the other competition law (which attempts to prevent any reduction in competition or increase in market power, so to speak). Hence, in order to figure whether the consumer harm test is applicable to free high technology, we would have to consider whether there are any parallels with intellectual property rights that could also enable it to qualify for analysis under the *Magill* test.

What we will find is that in essence there are important similarities between the circumstances of the *Magill* case and those of free high technology service investigations. And this is why the test is most likely applicable to free high technology than any other test. The other reason we will see why the test is comparatively appropriate is because it narrows down the issues to the possibility of future innovations as a qualification for allowing a unilateral action to continue. If there is no prevention of innovation due to the incumbent's unilateral action, then the action can continue even though competition may be reduced in the market. In order to understand this, we need to have a better understanding of the nature of intellectual property rights.

The *Magill* case involves an intellectual property right that the right holder refuses to license; this is what is being complained of as an abuse of dominance. Intellectual property rights

provide the right holder with the legal authority to prevent anyone else from using the intellectual property; it allows him/her to have a monopoly over the intellectual property.¹⁵² In addition, the purpose of these intellectual property rights is to encourage innovation.¹⁵³ The argument is that the monopoly over the intellectual property encourages the right holder to invest further in research and development, making innovation more likely.¹⁵⁴ This is because he or she contemplates recovering the investment in the future as the right holder is the only one allowed to collect earnings from the intellectual property.¹⁵⁵ In the absence of such a right, individuals or entities would not feel investment in research and development is a risk worth taking as anyone else is allowed to use the intellectual property and reap the benefits from it.¹⁵⁶

The consumer harm test in *Magill*, as we shall see, was designed to strike a balance between incentives to innovate (arising from its intellectual property rights) on the part of the dominant company and any potential reduction in competition.¹⁵⁷ Similarly we see in the free high technology sector dominant companies that are able to innovate and produce better for consumers due to their monopoly power. Hence, here we also need to find a test that balances the two.

¹⁵² Luc Peepercorn 'IP Licenses and Competition Rules: Striking the right balance' (2003) 26(4) *World Compet* 528

¹⁵³ See for example OECD 'Policy Roundtables; Competition Policy and Intellectual Property Rights'(1997) DAF/CLP(98)18, pg 7 available at <http://www.oecd.org/competition/abuse/1920398.pdf> accessed on 22nd December 2016; 'At the highest level of analysis IPR and competition policies are complementary because they share a concern to promote technical progress to the ultimate benefit of consumers. Firms are more likely to innovate if they are at least somewhat protected against free-riding.'

¹⁵⁴ Bo Vesterdorf 'Article 82 EC: Where do we stand after the Microsoft judgement?' (2008) 1 *ICC Global Antitrust Review* 1

¹⁵⁵ Ibid 'Without the protection offered by IPRs, as created by legislation, an important part of innovation might be endangered because of the often considerable economic investments required to innovate. And precisely because of the protection offered to the inventor, others will in turn also need to innovate in order to try and compete on the same market.'

¹⁵⁶ Ibid

¹⁵⁷ Erik Osterud *Identifying Exclusionary Abuses by Dominant Undertakings under EU Competition Law: The spectrum of tests* (Kluwer Law International 2010). See also Gustavo Ghidini *Intellectual Property and Competition Law- The Innovation Nexus* (Cheltenham Edward Elgar 2006) 99

Similarly, in the case of free high technology we have a situation where an entity with monopolistic features such as high market share is also providing an innovative service and strives to innovate. In other words we are addressing monopoly power which encourages innovation, like a monopolising intellectual property is meant to encourage innovation. The unique situation where a monopolistic right also is likely to uniquely provide a positive effect such as innovation at zero price in the economy can be seen as the main reason for the courts ensuring that there can only be exceptional circumstances where such a monopoly is to be prevented.¹⁵⁸ It has been said that intellectual property law confers legal proprietary rights to an individual and therefore any interference with the way the right holder deals with such rights needs to be justified by strong unique circumstances.¹⁵⁹ As we will see, it is the idea of ‘exceptional circumstances’ which gave rise to the *Magill* test.

The question now is, to what extent can *Magill*’s consumer harm test be applied in cases dealing with free high technology? We will look at different aspects of the test now to see any obstacles that may come our way.

¹⁵⁸ See for example, Giorgio Monti *EC Competition Law* (Cambridge University Press 2007) 228; ‘the reason why the courts impose an obligation to license only in exceptional circumstances is because there is a presumption that a refusal to license IP rights benefits the economy’

¹⁵⁹ See Case 238/87 *Volvo v Erik Veng (UK) Ltd* [1989] 4 CMLR 122, 123- The judgement appears to maintain the, so to speak, sanctity of an intellectual property right to then conclude that only the exercise of the right can be challenged, and even then, only under particular circumstances. A refusal to license an exclusive awarded right, even when a reasonable royalty rate for the license is offered, cannot be considered an abuse of a dominant position. The ownership of the right cannot be challenged under any circumstance. However, the exercise of such a right by the proprietor can be challenged and may under certain circumstances be considered an abuse. Also see C Wardle ‘ANALYSIS- Ruling on the airwaves- Magill tested to what extent the EU’s powers are bound by treaty’ (1995) 17 LS Gaz 92- the author indicates how the exceptional circumstances factor in the *Magill* judgement just about justifies preventing the free exercise of an otherwise legal intellectual property right. ‘The saving grace of this judgment is that, on the face of it, it is confined to “exceptional circumstances”. For this reason the more alarmist interpretations of *Magill* are, in my view, unlikely to be realised.’

5.5.3 The necessity of the presence of an Intellectual Property Right for this test to be applicable

5.5.3.1 Indispensability and Elimination from the market

This consumer harm test is conventionally associated with the particular situation where the refusal of intellectual property rights is involved.¹⁶⁰ There is further supporting evidence of this in cases that came afterwards. For example, the judgment in *Bronner*¹⁶¹ laid down the following qualifications to override the exercise of a refusal, having scrutinised *Magill*:

- 1) The refusal must eliminate all competition in the downstream market,
- 2) The refusal must be incapable of objective justification
- 3) It must be indispensable to the downstream market; that is, there can be no substitute facility available.

Although *Bronner*'s consideration of *Magill* can be seen as an expansion of the *Magill* test into non-intellectual property rights cases¹⁶² (we recall from section 3.3.2.2 that *Bronner* concerned the refusal of a general property right i.e. the refusal to supply services from a delivery system owned by the incumbent), it can also be seen in an opposing light. *Bronner* ensured to limit and, in a sense, clarify the scope of *Magill* to cases where there was an intellectual property right being used to carry out a refusal to supply.¹⁶³ The *Bronner*

¹⁶⁰ See Brenda Sufrin 'Comment on the Magill Case' (1992) 3(2) Ent. L.R. 67- all copyright holders should pay close attention to Magill as it specifically prevents copyright holders (and quite possibly holders of other forms of intellectual property) from refusing licensing where the refusal prevents the emergence of a new product in an ancillary market.

¹⁶¹ Case C-7/97 *Oscar Bronner GmbH & Co. KG v. Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG* [1998] E.C.R. I-7791

¹⁶² Hedvig Schmidt 'Article 82's "exceptional circumstances" that restrict intellectual property rights' (2002) 23(5) ECLR 210, 215.

¹⁶³ E O'Hanlon 'Refusal to supply jurisprudence in European competition law since *Oscar Bronner*' (2006) 9 Trinity C.L. Rev. 156, 159

requirements seem to be very strict and capable of making intervention in non-Intellectual Property Rights cases less likely.¹⁶⁴ Whilst *Bronner* appeared to question and limit the effects of *Magill*, *IMS*¹⁶⁵ seemed to make it appear open and applicable again.¹⁶⁶ In *IMS* copyrighted information (which was refused to the complainants) was considered indispensable; the court ordered access to the essential facility. *IMS* also confirmed, like in *Magill*, that the licensee could not simply intend to replicate goods, but make new products. *IMS* also confirmed that the ‘indispensability’ test had to fulfil the 3 conditions in *Bronner* which were also confirmed as being cumulative conditions. They also confirmed that the secondary market could simply be a potential market or even hypothetical market from which all competition must be excluded. Hence, from *IMS* we saw a further intervention in the exercise of intellectual property rights. The structure of the *IMS* test also appeared to undermine the sanctity of intellectual property rights; the first step of the test was to ask whether there was the prevention of a new product as opposed to asking whether the IP right was indispensable in the first place.¹⁶⁷ It is therefore questionable how strict of an assessment factor the existence of an IP right is.¹⁶⁸

Then, the Microsoft case appeared to lower the bar for intervention in intellectual property rights further. We saw that *Bronner* laid down a strict test in terms of indispensability and elimination of competition.¹⁶⁹ Microsoft, having refused interoperability information to its competitors, argued that like in *Bronner*, its competitors had alternative operating systems to

¹⁶⁴ G McCurdy ‘Intellectual Property and Competition: Does the essential facilities doctrine shed any new light’ (2003) 25 (10) EIPR 472

¹⁶⁵ Case C-418/01 *IMS Health GmbH & Co.OHG v NDC Health GmbH & Co. KG* ECR 2004 I-05039

¹⁶⁶ Valentine Korah *Cases and Materials on EC Competition Law* (2nd ed. Hart Publishing 2001)

¹⁶⁷ Joost Houdijk ‘Case Comment- The IMS Health Ruling: some thoughts on its significance for legal practice and its consequences for future cases such as Microsoft’ (2005) 6(3) EBOR 467, 479

¹⁶⁸ *Ibid*

¹⁶⁹ See Case C-418/01 *IMS Health GmbH & Co.OHG v NDC Health GmbH & Co. KG* ECR 2004 I-05039, I-5085 and I-5088

work with and therefore would not be completely eliminated. The judgement on the other hand said that there was no need to show that there would be high likelihood of elimination but simply the risk of elimination, which is a lower standard test so to speak.¹⁷⁰ The judgment also added that there is not just a question of viability, but economic viability in deciding whether there is a risk of elimination. The EU *Microsoft* judgment also found that the interoperability information was indispensable in the sense that the alternatives available to Microsoft's competitors were not economically viable (Windows was the dominant operating system).¹⁷¹ Hence, in that sense the meaning of indispensability is not as strict as insinuated by *Bronner* and *IMS Health*.¹⁷²

In terms of the sanctity of intellectual property rights in the context of refusals to supply cases it is important to note that the *Microsoft* judgment clearly stated that it was not an objective justification that the interoperability information was covered by intellectual property rights.¹⁷³ The other way of looking at this is that the use of the consumer harm test in *Magill* seems less likely to have to be related to an intellectual property right to be applied.¹⁷⁴

It can definitely be argued that the fact that there is an intellectual property right involved is not necessarily the main factor that distinguishes this test. In other words it will be seen that

¹⁷⁰ Francois Leveque 'Innovation, Leveraging and Essential Facilities: Interoperability Licensing in the EU Microsoft case' (2005) 28 World Compet 71, 90

¹⁷¹ Bo Vesterdorf 'Article 82 EC: Where do we stand after the *Microsoft* judgement?' (2008) GAR 1, 7: the concept of indispensability has been broadened to include economic indispensability.

¹⁷² C Ahlborn & D Evans 'The Microsoft Judgement and its implication for Competition Policy towards Dominant firms in Europe' (2009) 75(3) Antitrust Law J. 901; The courts approach lowered the bar for both the indispensability requirement and elimination of competition standard. 'Refusal to grant access to an input no longer has to be an absolute bar to participating in the market for the input to be indispensable'

¹⁷³ See Case T-201/04 *Microsoft v Commission* [2007] ECR II-3619 paragraphs 329 and 330- the judgment refers to *IMS* and *Magill* stating that refusal of access to an intellectual property right could be abusive.

¹⁷⁴ There is more of a willingness than ever to find a refusal to supply anti-competitive where access to another entity's intellectual property is denied. See E O'Hanlon "'Refusal to supply" Jurisprudence since Oscar Bronner' (2006) 9 Trinity C.L. Rev. 156, 165

in order to override the exercise of an IP right, there is no need for very special circumstances. The DC Circuit Court of Appeals in *United States v Microsoft*¹⁷⁵ analogizes this idea in response to Microsoft's argument that it should be able to exercise its IP rights as it wishes as they are rights bestowed by law;

‘That is no more correct than the proposition that use of one’s personal property, such as a baseball bat, cannot give rise to a tort liability.’¹⁷⁶

5.5.3.2 The new product requirement

This requirement is considered to have been designed to have the effect of setting a very high threshold for finding an abuse in order to justify blocking the free exercise of intellectual property rights by the rights holder.¹⁷⁷ The refusal must prevent the emergence of a new product for which there is a potential demand. There is no clear definition of what a new product is in the *Magill* case, but it appears indicated to be a product that is not currently offered in the market.¹⁷⁸

¹⁷⁵ *United States v Microsoft* 253 F.3d 34 (DC Circ.2001)

¹⁷⁶ *United States v Microsoft* 253 F.3d 34 (DC Circ.2001) at 63

¹⁷⁷ Erik Osterud *Identifying Exclusionary Abuses by Dominant Undertakings under EU Competition Law: The spectrum of tests* (Kluwer Law International 2010) 218. The threshold is relatively higher because generally all that is needed to show an abuse of a dominant position is a restrictive effect on competition. However, where the refusal to license an intellectual property right is involved, the additional burden of showing a prevention of a new product in the market must be carried out.

¹⁷⁸ Joined cases C-241/91 P and C-242/91 P *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v Commission of the European Communities* [1995] ECR I-00743 paragraph 54

However, the necessity of the ‘new product’ element in a test specifically applicable to a case involving intellectual property rights can be questioned. In *Tierce Ladbroke SA v Commission*¹⁷⁹ the judgement stated that an abuse of dominance in such cases could be either proven where the intellectual property right is indispensable to the business activity the complainant wants to engage in or where the refusal prevents the emergence of a new product.¹⁸⁰ Hence, it appears that the new product requirement is not a necessary qualification in these abuse of dominance tests; it may be one of the many considerations. The implications of this can however be wider in the sense that it is not a strict test reducing the need for the existence of an IP right to justify the use of a test.

The *Microsoft* judgment stated that the new product criterion fell under a broader article 102(b) TFEU category of limiting technical development to the prejudice of consumers.¹⁸¹ Hence, the new product criterion can be one way of showing limiting technical development, but not the only way. The two tests (*Magill* and *Microsoft*) therefore do not conflict; they are alternative tests.¹⁸²

5.5.3.3 How new does the ‘new product’ have to be?

One of the main issues that arises when discussing legal tests that focus on assessing innovation is the difficulty of making an objective assessment of the quality of the

¹⁷⁹ Case T-504/93 *Tierce Ladbroke SA v Commission of the European Communities* ECR 1997- II-00923

¹⁸⁰ It may be worth noting however that it can be argued that Ladbroke was trying to introduce a new product in the market with potential demand as in *Magill*; it was going to integrate live broadcasting of races (although not necessary for betting) into the betting experience so to speak. See S Opi ‘The Application of the Essential Facilities Doctrine to Intellectual Property Licensing in the European Union and the United States: Are Intellectual Property Rights Still Sacrosanct?’ (2001) 11(2) *Fordham Intell. Prop. Media & Ent. L.J.* 409, 461-2

¹⁸¹ Case T-201/04 *Microsoft v Commission* [2007] ECR II-3619 Paragraph 632

¹⁸² Erik Osterud *Identifying Exclusionary Abuses by Dominant Undertakings under EU Competition Law: The spectrum of tests* (Kluwer Law International 2010) 233

goods/services in question and of the possibility of increased innovation. Questions about whether any of the dominant companies' competitors have better products that consumers do not have access to because of, for example, switching costs, are undoubtedly difficult as it can be a subjective issue. What may be a positive innovation to one consumer may be a negative to another.

Therefore, to what standard does the 'newness' or 'quality' of the new product have to be proven in order to satisfy this test? The criterion appears to be satisfied as long as the products/services are not mere duplicates of what is already offered on the market; it has to simply be of a different nature in the sense that it provides features to consumers that are not provided by any other competitor or the dominant company itself.¹⁸³ There is therefore no substantive analysis of the quality of the product/service; neither does there seem to be a requirement for evidence showing that there would be an actual demand for this product/service.¹⁸⁴

In *Microsoft* it appears that a direct appraisal of the newness of a product is not even required; instead, the effect on the incentives to innovate can be taken into consideration. The incentives test implemented by the EU Commission was to see whether or not competitors' incentives to innovate would be reduced and whether or not the incentives of Microsoft to

¹⁸³ See Opinion of Advocate General Tizzano, Case C-418/01, *IMS Health v NDC Health* [2004] ECR-I-5039, para 62. The judgment does not disagree with this statement. The judgment does not set out any elaborate criteria to analyse the new product, determine whether it is of a good quality and therefore there would be a demand for it. As long as it is different and not offered on the market, there appears to be an assumption that there will be a demand for it.

¹⁸⁴ See Joined cases C-241/91 P and C-242/91 P *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v Commission of the European Communities* [1995] ECR I-00743
.- The judgment in *Magill* does not discuss any evidence behind substantiating the claim that there is potential consumer demand for the new product. It appears to accept the existence of the potential demand as a fact.

innovate would be reduced should it be forced to release the interoperability information.¹⁸⁵

But it must be noted that the CJEU stated that the test of whether or not Microsoft's own incentives would be reduced is a question to be answered when considering whether there is an objective justification to refuse provision of interoperability information. It was not relevant when the judgement was trying to consider a competitor was trying to bring in a new product.

5.6 Conclusions

5.6.1 Can we apply *Magill's* consumer harm test to free high technology cases?

But does this mean that we have any evidence to be able to apply the *Magill* test to any other abuse apart from that relating to refusal to supply? As we have already seen there is proof in the literature and cases that the test in *Magill* can arguably be applied to cases that do not involve intellectual property; the existence of intellectual property rights, in hindsight and in essence were not the direct reasons behind having a special consumer harm test.¹⁸⁶ But it is not necessarily clear whether it can be applied outside the realm of refusal to supply cases.¹⁸⁷

But even when we look at classic refusal to supply cases, we see that they could also directly

¹⁸⁵ Erik Osterud *Identifying Exclusionary Abuses by Dominant Undertakings under EU Competition Law: The spectrum of tests* (Kluwer Law International 2010) 80; the author states that the test was in this sense two tiered. But disagreed with the EU Commission's conclusion on whether incentives for Microsoft were reduced. The EU Commission shifted the burden of proof on Microsoft to show that incentives to innovate would be there and had argued that Microsoft's incentives to innovate would continue.

¹⁸⁶ Brenda Sufirin 'Comment on the *Magill* Case' (1992) 3(2) Ent. L.R. 67, 68; 'It would be wrong to look at *Magill* just as an attack on the exercise of intellectual property rights. It can equally be seen as part of the application of Article 86 to refusals to supply.'

¹⁸⁷ *Ibid* Note that the author believes in the extension of *Magill* beyond IP rights but only to the extent that they can apply to Article 86 (Now 102) refusals to supply cases. She lists cases as examples of where abuse was found due the denial of resources to competitors showing that these were not limited to cases where there were IP rights over the resources. Examples given were Case 238/87 *Volvo AB v Erik Veng (UK) Ltd* [1988] ECR 6211 and Case 53/87 *CICRA v Régie Nationale des Usines Renault* [1988] ECR 6039. Note thought that these are under the category of 'refusal to supply'

be part of the broader category of exclusionary conduct, hence putting the focus on the fact that it is more about the exclusionary aspect of the refusal that is of concern; in other words there was no need to distinguish between refusal to supply and exclusionary cases.¹⁸⁸ For example, the *United Brands* and *Commercial Solvents* cases involved literal refusals to supply; the judgements however did not refer to any particular refusal to supply/essential facilities doctrine and did not state or indicate the requirement of indispensability or essentiality.¹⁸⁹ It was seen from these cases that refusal to access a facility or to supply as a way to prevent competitors from competing effectively (as opposed to prevent them from competing at all or eliminating them from the market) was enough to lead to an abuse even where the facility/supply was not essential.¹⁹⁰

The indispensability requirement was clearly stated in *Oscar Bronner*. This does not mean that previous cases such as *Commercial Solvents* and *United Brands*¹⁹¹ constitute bad law; the

¹⁸⁸ John Temple Lang 'Defining Legitimate Competition: Companies' Duties to Supply Competitors and Access to Essential Facilities' (1994) 18 FORDHAM INT'L. L.J. 437, 443

¹⁸⁹ See Joined Cases 6-7/73 *Istituto Chemioterapico Italiano SpA & Commercial Solvents Corporation v Commission of the European Communities* [1974] E.C.R. 1974 -00223- company in dominant position refused to supply raw materials to a competitor downstream; this could lead to the elimination of that company from the market. For this reason the refusal was prohibited. On page 233-235 of the judgement, whilst it was acknowledged that there were alternative suppliers and processes that could literally enable the claimant to continue producing the end-product, they would be unable to provide it on the same scale and conditions that currently enabled it to produce to the efficient levels. Hence, it can definitely be argued that the supply from this particular dominant supplier was not essential in its strictest meaning. Hence, it can be argued that indispensability/essentiality did not play a strong role in the case. Case 27/76 *United Brands v Commission* [1978] ECR 20- In this case the two parties did not have a competitive relationship downstream. United Brands refused to supply to one of its distributors because it started distributing a competing brand of banana. The ECJ stated that there was a duty to supply. Again, the distributors had alternative suppliers and therefore the supply was not essential/indispensable in its strictest sense. But given United's dominant position, it would discourage other distributors from distributing United's competitors at the supply level.

Furthermore, the US has also had similar cases that make us question the need for a specific essential facilities doctrine where refusals to supply are involved. For example see *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585 (1985). Aspen Skiing owned three slopes and had a previous agreement with Aspen Highlands, which owned one slope, to jointly give access to customers to all slopes on one ticket. Aspen Skiing then decided to stop providing this access through a joint ticket. The judgment ignored the essential facilities doctrine and simply found Aspen Skiing in breach due to an attempt at monopolization.

¹⁹⁰ John Temple Lang 'Defining Legitimate Competition: Companies' Duties to Supply Competitors and Access to Essential Facilities' (1994) 18 FORDHAM INT'L. L.J. 437, 443

¹⁹¹ Joined Cases 6-7/73 *Istituto Chemioterapico Italiano SpA & Commercial Solvents Corporation v Commission of the European Communities* [1974] E.C.R. 1974 -00223

Bronner case can be distinguished in the sense that the judgement stated that it was economically feasible to exist without the need of the delivery system and that it would be possible for other media to form partnerships together and form their own delivery network. However, being able to exist albeit with less competitive force and a facility being indispensable are two different things. *Bronner* is therefore seen as an attempt to limit the scope of any existing refusal to supply doctrine.¹⁹²

4.6.2 New test; Combining the *Magill* test and innovation markets

The new product requirement in the *Magill* test is probably the point at which we can consider the potential use of innovation markets. However, it is important to note that the new product in *Magill* and the innovation market are conceptually different. The new product is a specifically identifiable and viable product for which there would be consumer demand. Innovation markets involve a future product that may be identifiable, but it is uncertain how successful and useful it may be. This is because the innovation market considers the product at its research and development stage.

However, our consideration of competition analysis in this section reveals that the concept of an innovation market reaches a standard (in terms of its ability to predict whether there will be new products in the future) acceptable by the standards seen in the case law. Whilst we saw *Magill* require the identification of a specific new product (with no strict standards of proof that there would be a demand for the new product), *Microsoft* merely considered the incentives to innovate. *Microsoft* did not require any particular potential improvements or new features that the refusal would prevent to be identified. It appears to state that the refusal

¹⁹² Sergio Baches Opi 'The Application of the Essential Facilities Doctrine to Intellectual Property Licensing in the European Union and the United States: Are Intellectual Property Rights Still Sacrosanct?' (2001) 11(2) *Fordham Intell. Prop. Media & Ent. L.J.* 409, 433

would lower incentives on the part of competitors to innovate and therefore this would prevent technological development. Analysing the different R&D projects in an innovation market is also a way to allow the prediction of new products and innovations in the future. If anything, it requires a higher standard of proof in the sense that the different operating R&D projects need to be considered.

I therefore propose the following test for abuse of dominance cases:

A practice of a high technology company operating online in the relevant market where the product/service is free, can only be considered an abuse of a dominant position when

- a) **it prevents the emergence of a new product and**
- b) competition eliminated in the relevant current product market.

However, as discussed, the emergence of a new product is not a strict requirement. That can be replaced by the test below.

A practice of a high technology company operating online in the relevant market where the product/service is free, can only be considered an abuse of a dominant position when

- a) **it significantly reduces competition in any relevant innovation markets it operates and**
- b) competition is eliminated in the relevant current product market.

Ensuring that the innovation market remains competitive is another way of ensuring that new products or improvements are not prevented in the future.

Similarly, I propose the following test for merger cases:

A concentration in the relevant market where one of the products/services is free, will significantly impede effective competition, in the common market or in a substantial part of it, in particular as a result of the creation or strengthening of a dominant position, when

- a) it significantly reduces competition in any relevant innovation markets the merging parties operate and
- b) competition is eliminated in the relevant current product market.

and shall be declared incompatible with the common market.

5.6.3 How is this test similar to the *Magill* test?

5.6.3.1 Exceptional Circumstances:

The specific qualification that this test only applies to situations concerning a high technology company providing free services could be considered fulfilling the ‘exceptional circumstances’ qualification that justified the formulation of the special *Magill* test. Just like the test in *Magill* was formulated with the aim of striking a balance between the free exercise of rights giving a monopoly over particular intellectual property which potentially encouraged innovation to the benefit of consumers and a reduction in competition resulting from a refusal to access the intellectual property potentially decreasing benefits to consumers. Similarly, with free high technology markets there is the unique situation where a dominant company with market power is providing a highly innovative service for free to the benefit of consumers (the company’s increasing dominance being an important reason behind its ability

to provide an increasingly innovative service) and a reduction in competition. Just like the *Magill* test, this new test for free high technology would involve a balancing act where a potentially monopolising act has the advantage of benefiting consumers ultimately but could also decrease competition in the market. The potential reduction in competition due to the unilateral act would have to be balanced against the potential increase in consumer welfare also likely to emanate from the dominance enhancing act.

5.6.3.2 High standard for indispensability and new product:

The *Magill* test first asks whether the refusal prevents the emergence of a new product. Lets say it does and therefore the authorities/judge wants to intervene in the use of the monopolising intellectual property right. As we have seen, this can be argued to be a significant intervention of a right that should reach a high standard of justification. The way this is done is by introducing a balancing element in the test. In *Magill* this comes in the form of the ‘indispensability’ aspect of the test where it is asked whether competition in the secondary market is completely eliminated; in other words, is the intellectual property right indispensable for the survival of competitors in that market. This reflects a high standard of justification for intervention. Similarly, we require the proposed test for free high technology to include some sort of balancing act.

If the innovation market is found to be competitive in the first part of the test and at that point the unilateral act of the dominant company would not be in breach of competition rules. Of course, there is then the likelihood that competition is reduced considerably in the current product market. Although we have discussed that in the case of free high technology a

reduction in competition does not adversely affect consumer welfare (but may even in fact improve it), we also acknowledge the possibility of false positives in competition analysis.¹⁹³

We therefore must ensure that there is some safeguard in the test. This is why the second part of the test would attempt to assure that a dominant free high technology company is not allowed to continue with otherwise abusive practices with the excuse of a highly competitive innovation market at the expense of significant levels of competition in the current product market. But because we recognize the unique contribution to consumer welfare that dominant free high technologies can make, there needs to be a complete elimination of competition as opposed to a reduction to find the company foul of competition rules. Although this test is skewed towards favouring a dominant free high technology company, the requirement that an elimination of competition should not take place will protect against the risks of having no competition whatsoever and having a pure monopoly.

5.6.3.3 No need for a radical approach to free high technology markets

Our consideration of free high technology markets has revealed how, from a consumer welfare point of view, the analysis of innovation is more important than in any other market. This is especially because other markets involve a monetary price being charged to consumers and therefore in those circumstances a reduction in competition could pose a real danger to consumers because of significantly higher prices.

But we also observed that generally both historical and current competition analysis avoids making direct analysis of innovation as a determinant of outcomes. Suggesting such a method would be, so to speak, radical at the place competition analysis is at. The test proposed here

¹⁹³ See A Devlin & B Jacobs 'Antitrust error' (2010) 52(1) Wm. & Mary L.Rev. 75

for free-high technology markets avoids this approach (despite it being an appropriate one) and sticks to traditional analysis of competition in markets. It simply alters the market to be analysed. In doing so it eludes any radical approach and becomes more acceptable and suited to current competition regime's analysis.

5.6.4 The consequences of applying this test

5.6.4.1 How this test will work in practice

It is important to illustrate how the proposed test would have panned out in the EU Commission investigations we looked at in Chapters 3 and 4. The first part of the test asks us to consider whether there will be a significant reduction in competition in relevant innovation markets. The second part of the test asks us to consider whether competition will be completely eliminated in the current product market. We will see below how these tests would have operated in the *Facebook/Whatsapp* and *Microsoft/Skype* mergers.

5.6.4.1.1 Facebook/Whatsapp

In the case of the *Facebook/Whatsapp* merger investigation what would happen is that instead of considering what current alternative social networks there are in the market, they would consider to what degree and number of alternative players are currently developing social network innovations in the market. As we saw in section 5.4, the innovation market in digital high technology markets is likely to be very high. Research and development costs are low relative to other industries like pharmaceuticals and innovations can be made relatively easily. The EU Commission would be able to argue, for example, that there are players in the market such as Snapchat, Twitter and Periscope who have research units that are working on innovative ways to socially communicate. Furthermore, the EU Commission could argue that

barriers to entry are low given the relatively low capital costs of research and development involved. Hence, the innovation market will be presented as one with, not only a suitable number of alternative players, but also a suitable number of potential new players in the future, which could for example include less well-known start-ups whose research and development projects are at an embryonic stage. As we saw in our analyses in Chapter 4, the EU Commission has time and again argued that barriers to entry are low in the current product market for entry indicating that new players are able to enter the market. However, this argument makes less sense given that barriers are in reality low; the new player cannot just be able to enter the market, but also be able to effectively compete. It is harder to convincingly show this when the current incumbents possess very high market shares and benefit from significant network effects. However, saying that barriers to entry are low in the innovation market is more convincing as capital costs to start a project are low. There is no further requirement to show whether new players can actually effectively compete in the innovation market as the technology is not present for use by consumers yet. Hence, arguments regarding market share and network effects become redundant.

Finally, the developing innovations that could be taken into consideration would be wide-ranging. For example, let us say Snapchat are developing virtual reality glasses that allows users to feel that they are in the same room remotely when interacting with each other. Whilst this is not currently part of the public consciousness as a form of social networking, there is nothing to prevent the EU Commission from taking this into consideration in the innovation market when considering a merger involving Facebook. The EU Commission would not be required to prove extensively that the virtual reality glasses will be successful, that they will allow Snapchat to become a better competitor in the social networking market or that it will completely revolutionise social networking to the point that it will render the technology of

the likes of Facebook obsolete (and therefore belongs to a completely different market). As we have seen in the EU Commission's pharmaceutical investigations, it has taken into consideration the competitive constraints from research and development that is embryonic in that it is several years away from having the ability to show that it will be a successful product. It would therefore be enough for the EU Commission to be satisfied that there is simply a technology being developed that has some potential (even if seemingly limited now) use in social networking.

Overall, the EU Commission would convincingly show that the innovation market is competitive, taking into consideration a wide-ranging group of current players, potential players and research and development programmes. A merger with Whatsapp would therefore not reduce competition significantly.

The next part of the test would require the EU Commission to consider whether competition in the current product/service market is eliminated completely. The EU Commission here has a very high bar to reach to show this; there need only be one other competitor in the current product market for this part of the test to fail. We have seen in the case of *Facebook/Whatsapp*, even though both have very high market shares in social networking and communications applications, there are always other competitors such as Viber and Snapchat still present. Although we have argued in this thesis that barriers to entry through network effects are high enough to lead to a significant reduction in competition, they are low enough to allow some other competitors in the market, even though they may not be effective competitors. Hence the barriers are low enough so as to not lead to a complete elimination of competition.

Hence, the merger would be authorised under the test as competition would not be significantly reduced in the innovation market and eliminated in the current product market.

Note that at no point does the EU Commission have to address arguments on network effects and market share in the first part of the test in its analysis of innovation markets. The research and development in the innovation market is not, in the conventional sense, being sold to anyone. Therefore there are no market share related issues here. The innovations are being developed internally. The arguments regarding network effects would be relevant to the second part of the test. However as explained, that part of the test would be difficult to satisfy as the EU Commission would have to show that network effects completely eliminate competition leading to a significant reduction in competition. By raising the bar in the second part of the test to a complete elimination of competition, the EU Commission can convincingly argue that network effects, whilst strong, are unlikely to lead to an elimination of competition. For example, Google already has over 90% market share in online search in Europe. Network effects have still not allowed a complete elimination of competition as 10% of the market belongs to smaller competitors.

5.6.4.1.2 Microsoft/Skype

In the case of *Microsoft/Skype* the EU Commission would consider the alternative innovative communications currently being developed in the innovation market instead of the competitors active in the current voice/video/instant messaging communications applications market. This would allow the EU Commission to consider other companies such as Apple (Facetime), Whatsapp, Facebook and Viber as companies who are regularly attempting to improve user experience by adding new features and improving quality of video

communications. The EU Commission is unable to convincingly take these competitors into consideration in the current product market especially if we consider that to be video communications on personal computers. Skype would end up having a massive market share through tipping given the Windows operating system's large market share, leading to potential anti-competitive tying. In this scenario the EU Commission has to argue, as it did, that the market had competitors who are constantly innovating. As we know from previous chapters in this thesis, network effects are likely to prevent switching to other competitors even if they are more innovative. The EU Commission got around such arguments by saying that market shares were constantly changing and that switching was easy.

When considering the innovation market however, arguments regarding tying and network effects do not come into play. In the innovation market the product is still being developed and improved; it is not in the market yet to be attached to a particular operating system/platform leading to network effects. Also, there is less likely to be controversy regarding market share in the innovation market. Yes, post-merger the two companies may combine their research projects to have a greater share of the innovation market, but this will be a lot less than their share in the current product market. For example, let's say in the current product market Skype has 90% market share and there are 9 other competitors who have a split of the remaining 10%. Let's say Microsoft was hypothetically one of those 9 competitors developing its own video communications.¹⁹⁴ In the innovation market however, Skype only has 10% of the market. Post-merger however, it together with Microsoft will have 20%. 80% of the market will still be shared by 8 other competitors.

¹⁹⁴ See Peter Bright 'Microsoft buys Skype for \$8.5 billion. Why, exactly?' (*Wired*, 5 October 2011) available at <https://www.wired.com/2011/05/microsoft-buys-skype-2/> accessed on 15 July 2018

In terms of the second part of the test the EU Commission is required to consider whether the merger would lead to the complete elimination of competition in the current product market to the point where there is no other video communications applications available on windows operating systems. This is difficult to prove as even on windows operating systems there are alternatives such as the desktop version of Viber and Google Hangouts which also allow video and voice communications.¹⁹⁵ Hence, this part of the test would not be satisfied either due to the higher standard of showing complete elimination as opposed to significant reduction of competition in the current product market. Therefore the *Microsoft/Skype* merger would most likely be cleared under the test.

5.6.4.1.3 Hypothetical scenario-taking the example of Google's acquisition of Tenor

In March 2018 Google acquired GIF image search company Tenor.¹⁹⁶ GIFs are compressed series of images that consumers can use to express what they want to say via text or other communications applications such as Whatsapp. Tenor has a keyboard that can be attached to communications applications such as Facebook messenger to search for relevant GIFs to be sent to other users. Tenor has a large database of search users for GIFs. Although the acquisition was not scrutinised, because perhaps it did not reach certain turnover thresholds,¹⁹⁷ we could analyse how it would work under our proposed test in hypothetical terms.

¹⁹⁵ See Rob Nightingale 'Fed up with Skype? Here are 6 of the best free alternatives.' (*MakeUseOf* 22 February 2017) available at < <https://www.makeuseof.com/tag/fed-up-with-skype-here-are-6-of-the-best-free-alternatives/>> accessed on 15 July 2018

¹⁹⁶ Matthew Lynley 'Google is acquiring GIF platform Tenor' (*Tech Crunch* 27 Mar 2018) available at <https://techcrunch.com/2018/03/27/google-acquires-gif-platform-tenor/> accessed on 5 August 2018

¹⁹⁷ The Federal Trade Commission (FTC) in the United States has jurisdiction over investigating mergers where the company being acquired has to be valued at at least \$50 million and the sales of one party has to be at least

Let's say that we are in a situation where Tenor is the leading search engine for GIFs, GIFs have become the primary way of text communication and as a result, revenues have reached threshold levels that require scrutiny from the EU Commission. Under the current product market there would be a highly viable argument that Google can leverage its market share in search into GIF search through Tenor by integrating a Tenor search function into its general search function. This sort of tying could lead to the foreclosure of competing GIF search engines due to network effects and therefore lead to a significant reduction in competition. The EU Commission would, recognising that GIFs are free and Google's broader range of resources could potentially improve the GIF database, consider the merger to be good for consumers. In doing so, it would downplay the network effects that Tenor would benefit from and focus on the notion that the GIF market has multiple players and is characterised by unstable market shares. In this way it would justify the merger. Of course, we know that these arguments are inaccurate and the more likely outcome is that there will be a significant reduction in competition due to strong network effects.

Under our proposed test however, the innovation market would still genuinely contain a number of competing players invested in innovating their GIF search technology.¹⁹⁸ There are already a number of companies currently that have GIF databases.¹⁹⁹ They would all have their own research and development teams perhaps attempting to produce better quality GIFs and improving the search technology so users can more easily find the specific GIFs they're

\$100 million whilst those of the other has to be at least \$10 million (See FTC 'Introductory Guide II: To file or not to file- when you must file a premerger notification form' available at <https://www.ftc.gov/sites/default/files/attachments/premerger-introductory-guides/guide2.pdf> accessed on 15 July 2018). Tenor may not have sales worth at least \$10 million; its estimated revenue was valued at \$3 million (See <https://www.owler.com/company/tenor2>)

¹⁹⁸ See Craft 'Tenor Competitors' available at <https://craft.co/tenor/competitors> accessed on 15 July 2018

¹⁹⁹ Ibid

looking for. Furthermore, the capital investment may be considered low in this sort of innovation market meaning that it is quite easy to enter the market to start developing a new GIF database. GIPHY for example, partners with various media companies to ensure it has a license for GIFs that are, for instance, taken from clips of movies. It appears that GIPHY does not have to pay for these meaning that the capital cost is relatively low; the media companies in return gain promotion of their products through these GIFs.²⁰⁰

Finally, as we have indicated, there are a number of competing GIF companies such as Giphy and Viotalk already present in the market.²⁰¹ Hence, the merger is unlikely to lead to a complete elimination of competition in the market, although there may be a significant reduction. The second part of our test will therefore be successfully satisfied.

5.6.4.2 Avoiding a traditional analysis of the current product market

We saw in Chapter 3 clearly all the problems behind a traditional analysis of the current product market. The EU Commission is of the belief that the otherwise anti-competitive practices/merger of free high technology companies are good for consumer welfare.

However, they are stuck applying a traditional analysis which forces them to show the free high technology companies to have low market power; as that is the only way you can let them off the hook. We saw how this leads to the EU Commission utilizing limited arguments that create a sense of uncertainty over the law.

²⁰⁰ Aashish Pahwa 'How Giphy works and makes money? Everything you should know' (*Feedough* 21 March 2017) available at <https://www.feedough.com/how-giphy-works-and-makes-money/> accessed on 5 August 2018

²⁰¹ Craft 'Tenor Competitors' available at <https://craft.co/tenor/competitors> accessed on 15 July 2018

This test allows the authorities to do away with this form of analysis and therefore do not have to answer any questions on factors such as market power and market share in the current product relevant market, and network effects. In other words, any questions asked to determine whether competition in the current product market will be reduced will become irrelevant. There will therefore be no need to come up with confusing justifications to satisfy the original competition law tests.

Instead, the authorities will be required to look at competition from a very different angle. As we have seen, the innovation market is about looking at the alternate innovation projects (both current and potential) run by competing companies. From the technical definition of the innovation market it is much more plausible to show that there is relatively less market power than there would be in the current product market. In an innovation market one innovation project is just as potent as the other. At the research and development stage it is uncertain as to how successful any particular project will manifest into a successful product/service that will allow it to gain significant amounts of market power in future markets. In a current product market, one company's product can be more potent in the sense that it is in the market already and can be much more highly demanded by consumers. We have seen, especially in the case of development of completely new products (not just improvements on current products) that will replace current products, market power in the current product market does not have any influence on the likely success of any innovation projects.

With free high technology, we are more likely to get a highly competitive innovation market as it is relatively easy to have the technology in development. Questions about network effects at that stage are not likely to be relevant as the product or service in development is not in the market yet. Hence, questions about whether consumers are locked in and their

switching costs are not relevant. Those issues can be avoided and therefore there would be no need for the authorities to conjure up arguments based on limited reasoning.

Finally, dominant free high technology companies are rewarded for their contribution to consumer welfare decreases in competition in the current product/service market as long as there are competing attempts at innovation in the market. This should also include a consideration of their own attempts at innovation. Although it appears that when applying the ‘emergence of a new product’ test the effect on the incentives of the dominant company holding the essential facility to innovate is irrelevant,²⁰² *Magill* is quiet on whether the dominant company itself planning to enter the market with the same new product would make the refusal to supply acceptable; however, this seems enough to avoid liability under the test.²⁰³

In summary the new proposed test solves the problem of limited and inconsistent reasoning of the EU Commission in free high technology cases by excluding the need for discussing network effects, which would only be relevant to the discussion of current product markets. It then enhances the quality of analysis by promoting the highly likely increase of consumer welfare as a result of increases in the market power of free high technology companies. At the same time it prevents the complete elimination of competition in the current product market to avoid the risk of false positives. Even if in this part of the test, the argument on network effects is used accurately, it is likely to only lead to the conclusion that competition would be significantly reduced. It would be difficult to prove that competition is eliminated.

²⁰² Erik Osterud *Identifying Exclusionary Abuses by Dominant Undertakings under EU Competition Law: The spectrum of tests* (Kluwer Law International 2010) 227

²⁰³ Sergio Baches Opi ‘The Application of the Essential Facilities Doctrine to Intellectual Property Licensing in the European Union and the United States: Are Intellectual Property Rights Still Sacrosanct?’ (2001) 11(2) *Fordham Intell. Prop. Media & Ent. L.J.* 409, 462

Regardless of our emphasis on the market power of companies like Google and Microsoft, the literally always have smaller competitors in the same current product market, even if they are not thriving. Hence, it is likely that the incumbent's action will fail this part of the test and the EU Commission will be able to allow the incumbent to continue with its consumer welfare enhancing actions, even if they lead to a reduction in competition. We know from our analyses in Chapter 3 that this appears to be the most likely intention of the EU Commission.

5.6.4.3 Relevant market of advertising

We note that a lot of the free high technologies we discussed in Chapter 3 are involved in online advertising. However, we chose to focus on the user's point of view as the majority of the cases analysed did not involve an advertising market and for those that did, the market share in online advertising was low. For example, Facebook has a low market share in advertising and therefore from that particular point of view, the authorisation of the merger would appear non-controversial. The exception to all of this is *Google/DoubleClick* which appears to be the one anomaly that does not fit in very well with the thesis' hypothesis. However, because it is the exception rather than the rule, the focus remained on users in this thesis.

One could argue though in any future case involving a company like Google which has a major market share in a non-free sector such as advertising, the proposed test would allow the incumbent to reduce competition in a market where consumers have to pay a price; prices for advertisers could go up significantly. However, the simple solution to this is the use of commitments. For example, if in *Facebook/Whatsapp* Facebook did have a much larger market share in advertising already, the proposed test would only be applied to Facebook as a

social network and Whatsapp as a free communications application. Data could be exchanged between the two networks in order to enhance, for example, the social network experience; Whatsapp already shares phone numbers with Facebook to improve friends suggestions.²⁰⁴ However, the two parties would have to commit to not using the data to improve ad targeting. In that way the problem of a simultaneous reduction in competition in online advertising can be dealt with

²⁰⁴ James Titcomb 'WhatsApp is now sharing your phone number with Facebook - here's how to stop it' (*The Telegraph* 26 August 2016) <http://www.telegraph.co.uk/technology/2016/08/25/whatsapps-new-privacy-policy-lets-it-share-your-phone-number-wit/> accessed on 2 September 2017

CHAPTER 6- CONCLUSION

6.1 Conclusion

As mentioned we first set the background against which the EU Commission investigations into free high technologies take place. The background included two main elements. First is the unique economics of free high technology. Second are the objectives and presumptions of competition law. In terms of economic theory there is a general consensus that large dominant firms or monopolies are not good for consumers. Monopolies are understood to be complacent and therefore are inefficient and suffer from a lack of motivation to innovate. However, we see a very different potential picture with free high technology companies that are large and dominant.

Free high technology monopolies are good for consumers for a number of reasons. It was discovered in Chapter 2 that they are two-sided markets and therefore are able to uniquely help consumers like other two-sided markets in a way a single-sided one cannot. As a two-sided market, these companies are involved in matching different groups of people who want something from each other on a common platform. If there is a platform in the market which is a monopoly and there are no competitors, then the platform will have all users in one place. This increases the chance of any one user being matched correctly. If there are many competitors, then all consumers will be split amongst different platforms and therefore there is a smaller chance that a user will be matched with the desired person/entity on the other side. For example, this is also similar to the concept of search engines being more effective when they have more users. They have a wider pool of information from which to detect search patterns and therefore be able to provide better search results. For these reasons it was

also found that multi-homing by consumers of several platforms simultaneously was inefficient.

In terms of innovation, two-sided platforms are also beneficial to consumers. This is especially given that they tend to have a group of consumers that they charge far less and therefore the only way to attract them is to actually keep the level of innovation very high. This is especially seen and important in social networks and search engines as users are not charged anything. This high level of innovation then allows the platform to charge a higher and more lucrative price to the other side of the market.

Chapter 2 also went beyond the two-sidedness of free high technology companies and explained how they are even a unique group amongst two-sided high technology markets in terms of providing consumers with benefits. We saw that the fact that they charge a £0 fee for their services to consumers means that any innovation, quality changes or additional features they implement will always result in an increase in consumer welfare. This may not be the case in other high technology sectors where there is regular innovation as there is a chance that the price may be proportionally higher than the quality improvement. We also saw that another reason innovation was very likely to be high in the free high technology industry was because there was always the threat of next-generation products/services which could completely replace the current market. This threat is always a strong motivation for companies to constantly attempt huge leaps in innovation.

For all these reasons above it was established that the larger the free high technology company the better for consumers. Consumers further benefit from the fact that there are unique factors that motivate these large companies to constantly innovate despite the theory

that monopolies are in a complacent place and therefore are never motivated to make improvements out of fear of losing market share.

We then moved on to establish whether this unique theory of free high technology markets actually suited the objectives and presumptions of competition law. It was found that competition authorities interpret fundamentally that competition is good for consumers. Although, for example, the guidance on the enforcement of Article 102 may indicate that the European Commission acknowledges in some instances more competition may not indicate better consumer welfare, in practice the authorities carry out their analyses in a way to strongly reflect that consumer welfare is directly proportional to competition. The issue is however, this presumption of competition law is incongruent with the unique features of free high technology. Therefore there is a tension between consumer welfare and competition in these markets.

Where there is a tension between objectives, it needs to be established which one takes precedence over the other. In that way one can see what the result for free high technologies under investigation would be. If the main objective is consumer welfare, then free high technologies should be allowed to carry out activities that expand their market power. If it is competition, then these activities need to be limited. What we eventually find is that consumer welfare is the main objective of competition law over all other objectives and to say otherwise appears controversial.

At the end we therefore bear witness to a, so to speak, confusing set of relationships. On the one hand consumer welfare is the prioritised objective of competition law, meaning that competition law and policy is to encourage or at least not hinder any increase in market

power on the part of free high technologies. On the other hand, competition law is based on the idea that competition is good for consumers. Therefore, it would be difficult to justify increases in market power due to the concomitant decreases in competition. But increases in market power are likely to be good for consumer welfare.

Now that the theoretical/ideological tensions have been established in the context of free high technology and competition law, we moved on to Chapters 3 and 4 where we see how these tensions manifest themselves in the analyses and evaluations of competition authorities when they investigate free high technology markets. We then see how some real problems of uncertainty and inconsistency arise.

In Chapter 3 we moved on to looking into competition law analytical frameworks related to relevant market analysis in free high technology markets. We began by establishing that a major part of the analytical framework in the form of market definition always requires competition authorities to analyse the number of and strengths of competitors in the market. Therefore competition analysis is to always ideologically begin with the notion that the amount and nature of competition in the market is important. Other forms of analyses that come after market definition such as ‘closeness of competition’, complements and leaving the market definition wide or open, although they may clash with the fundamental essence of defining a relevant market, all still entail the scrutiny of the level of competition in the market. We therefore already see an inconsistency with free high technology markets where competition levels are not important to determine the level of consumer welfare in the market.

In Chapter 4, we then looked at the substantive arguments that the EU Commission carried out with the purpose of finding out what the level of competition in the market is. These were arguments surrounding network effects, market share and innovation. We generally saw that the EU Commission shaped these arguments in a manner that showed that there was enough competition in the market and that also reflected that the level of competition in the market is to be the most important factor in free high technology markets just like any other market under investigation.

We saw three different forms of network effects namely barriers to entry, lock-in effects and switching costs. The EU Commission generally follows a narrative in its free high technology investigations that barriers to entry are low because launching a service on the internet costs very little and web services can reach huge amounts of customers very easily. However, the literature reveals very important points that are overlooked by the EU Commission. For example, consumers very often stick to one service even if there is a competitor with a better quality service simply because they were used to a particular service. This presents high barriers to entry in the sense that it is hard for new competitors to take customers from the incumbent and survive. That is why 'first movers' in the industry very often are looked at as presenting high barriers even if their services are of a lower quality. Hence the EU Commission's argument is limited in the sense it does not take into consideration these factors. Furthermore, it is also inconsistent as it describes barriers to entry to be very high in technological interoperability cases even where switching to different software such as media players and web browsers is free.

With lock-in effects it was again seen that they were not strong enough to keep customers away from competitors. Users were always free to move between, for example, social

networks and communication applications. However, it was ignored that users again were likely to stick to the incumbent's services. A lot of this has to do with the fact that the incumbent such as a large search engine has a lot of data that it can use to generate more effective search results simply due to the vast amount of information available. Also, a network such as a social network creates positive feedback loops in the sense that more and more people will join and stick to the network simply because more people they know are present on those networks/platforms. These factors allow the incumbent to in a way coerce users into sticking to its services. Again, these are arguments that the EU Commission does not take into consideration.

Finally, the EU Commission considered that switching costs for users were very low because none of these technology services actually cost anything in terms of money and the physical act of switching was easy. For example, with a search engine it means simply typing in a different URL for a different search engine. Again, however, the EU Commission failed to take into consideration the more subtle arguments with regards to switching. Behavioural economics strongly suggests that once users are used to using a particular service of the incumbent, they get used to it and stick to it. Looking for an alternative service indicates a high search cost for the user. This was further supported by evidence on search engine switching and trademark cases. Even with the EU Commission believing the opposite, it was interesting to see how it appeared to consider switching costs to be lower in the unilateral cases where Microsoft tied its media player and web browser to its operating system. Free versions of both are available on the internet and can physically be downloaded at no extra cost and with a few clicks. Again the EU Commission appears inconsistent and there is no linearity in the arguments amongst the different categories of cases.

Market share was another main area of analysis and discussion for the EU Commission in terms of free high technology markets. Like the network effects arguments there was also an inconsistent approach. Market share in free high technology markets is considered temporary and therefore does not present a threat to competitors who can take over from the incumbent by simply innovating or differentiating their service. However, it would always appear that the EU Commission would consider that the high market share as a competitive threat when it considered the competitive pressure emanating from the concerned entity's competitors. But when it came to the free high technology company under investigation itself, its market share was considered to be fleeting and therefore not a threat to competition. Furthermore, we also so how in a number of other technology cases market share was considered as an important factor that indicated an enhanced level of dominance. For these reasons the EU Commission's approach is limited and inconsistent.

Finally, there is the argument regarding innovation. The EU Commission does not directly assess the actual innovation generated by the incumbent and competitors. Instead, it makes assumptions about the motives to innovate depending on the level of competition present in the market. It is therefore another form of analysis of the EU Commission that makes its conclusion dependent on competition.

In summary, we see the EU Commission paint a picture of low dominance in the free high technology markets. This is not consistent with the existence of network effects and durable high market shares. Furthermore, it is not consistent with the way the EU Commission has construed other technology cases.

Our next stage was to hypothesise about why the EU Commission implemented such a confusing approach given the facts that we had. The hypothesis was as follows:

The substantive arguments/rationale used to justify the EU Commission's decisions in free high technology investigations are limited and inconsistent because the EU Commission, whilst believing that a free high technology company having increased market share to the detriment of competitors could be good for consumer welfare, needs to prove that there would be a competitive market despite the merger or unilateral action of the dominant company(ies).

In Chapter 2 we observed how dominant free high technology companies can be better for consumer welfare compared to a situation where there are high levels of competition. We also saw that consumer welfare is the main objective of competition law. So we start at this point and take it that the competition authorities in pursuit of a consumer welfare objective would want to allow free high technology companies to engage in practices and mergers that could lead to an increase in market power as this can be good for consumer welfare. What we saw in Chapter 4, is that the EU commission in fact does allow such actions and mergers to take place. However, the rationale it uses to justify these decisions is limited and inconsistent. This then can be attributed to the fact that the only way the EU Commission can justify these mergers and unilateral actions is by showing that there is a high level of competition in the market already. This is because of the way the analytical framework that is set. We saw for example how market definition and other forms of analysis in competition law investigations obligate the EU Commission to consider the level of competition in the market to determine dominance. Without dominance, there can be no abuse or a significant reduction in competition that is illegal under competition rules and regulations. Hence, if the EU

Commission wants to allow these mergers and unilateral actions, it has no choice but to paint the picture of high levels of competition in the market even when this is not the case.

Given the hypothesis, we do not see any problem with the EU Commission's decision itself; it is consistent with the objective of consumer welfare and allows dominant free high technology companies to flourish to the benefit of consumers. The problem of inconsistency and limited reasoning however, remains. Our next step is to therefore find a legal test that rids us of these problems and that the EU Commission can use to convincingly justify non-intervention in mergers and unilateral actions of free high technology companies.

In Chapter 5 we explored the possibility of coming up with a test that could assess innovation directly and do away with any test that prioritizes the consideration of competition in the market. What was found that all competition law tests require a consideration of competition in the authorities' and courts' analyses even if it is to the slightest level. It would be too controversial a step to put forward a test that ignored competition assessment completely. Instead, it is more appropriate and acceptable to propose a test that changes the angle from which competition is looked at in free high technology cases. To help us with this, we determined that a combination between the *Magill* test and innovation market concept could allow us to come up with a test that could, whilst not avoiding an assessment of competition all together, avoid the need to involve arguments regarding network effects and market share. We recall that these were the aspects of free high technology that the EU Commission were making confusing arguments about.

Innovation markets consider the number of research and development projects in the market that are substitutable with each other and therefore also competing against each other. This is

not the same as the amount of competition in the current product market. For example, with a search engine the current product market involves all the alternative search engines operating online. The innovation market would be the number of research projects funded by competitors and the incumbent search engine for the purpose of introducing a new product in the future. Whether there will be a successful new product in the near future is a different matter. For a search engine this could mean, for example, researching a new advanced form of search in the form of a home assistant. But it could be other areas of research not related to search. The innovation market would contain all other projects attempting the same type of innovation. We then saw that given the nature of free high technology markets, at any one time there will be a significant number of competing research projects by both dominant established companies and smaller start-ups. Hence, an innovation market would genuinely be competitive. Arguments with regards to network effects and market share are not relevant as the uncertain culmination of the research project is not in the market yet. Innovation markets have been considered extensively in pharmaceutical cases and therefore there is no reason that it cannot be considered in free high technology cases in the sense that it is not a concept foreign to competition law. We saw that there was one problem. There is no way to simply justify the sole consideration of innovation markets without further qualifications. Hence, current product markets would still have to be considered and the EU Commission would have to apply the same inconsistent and limited rationale to justify the mergers and unilateral actions. Therefore it would not allow us to solve the main problem.

However, a modification of the *Magill* test would allow us to shift focus on innovation markets. We saw that the *Magill* test was especially formulated for situations where the refusal to license a monopolising Intellectual Property right would potentially lead to the restriction of competition. Whilst the grant of an Intellectual Property right may lead to a monopoly in a specific area, we saw that there were advantages associated with it such as the

encouragement of innovation on the part of companies. Similarly, with free high technology industries we have a situation where complainants want to restrict its potentially monopolising actions. But it also means punishing a large company that provides a free service that is highly innovative. The monopolising action itself is likely to also lead to further benefits for consumers as we saw from Chapter 2. Hence, these are special circumstances that call for a special analysis like that associated with the *Magill* test.

Therefore the following test was proposed:

A practice of a high technology company operating online in the relevant market where the product/service is free, can only be considered an abuse of a dominant position when

- a) **it significantly reduces competition in any relevant innovation markets it operates** and
- b) competition is eliminated in the relevant current product market.

Similarly, the following test for merger cases the proposed test is as follows:

A concentration in the relevant market where one of the products/services is free, will significantly impede effective competition, in the common market or in a substantial part of it, in particular as a result of the creation or strengthening of a dominant position, when

- a) it significantly reduces competition in any relevant innovation markets the merging parties operate and
 - b) competition is eliminated in the relevant current product market.
- and shall be declared incompatible with the common market.

In part 'a' the test avoids the need to discuss network effects and market share that would otherwise have to be discussed in the current product market. We saw that due to the intention of the EU Commission to be lenient towards free high technology companies whilst being stuck with an analytical framework based on competition being good for consumers, the EU Commission put forward limited and inconsistent reasoning in terms of its views of network effects and market share. This can be avoided in part 'a'. In part 'b' the complainant has to prove that competition will be eliminated, which is a higher standard than the usual requirement of proving that competition will be simply reduced. As discussed in Chapter 4, even in that part of the analysis it would be difficult to convince that network effects could lead to a complete elimination of competition.

From a consumer welfare perspective, however, this test also has many advantages. Given what we know about free high technologies, it maximizes consumer welfare. On the one hand, it allows the incumbent to increase its market dominance in the current product market to the benefit of consumers in that market. But it ensures at the same time that there is a competitive innovation market. This means that consumers get the best quality current generation product/service from the current incumbent and at the same time are guaranteed the chance of benefitting from any future high quality disruptive technologies that may threaten the incumbent. Finally, it ensures that there is no pure monopoly in the current product market. Whilst a dominant company with increasing market power may be good for consumer welfare in this industry, a pure monopoly would present too much of a risk¹ in the

¹ For one of the potential risks see L Khan 'Amazon's Antitrust Paradox' (2017) 126(3) YLJ 564- The author explains that Amazon has engaged in predatory pricing to be able to gain a significant amount of customers to be able to take away market share. The company apparently often makes losses leading to the conclusion of predatory pricing. The aim is to therefore wait for all elimination of competition takes place and then raise prices for consumers, which will lead to consumers being worse off in the long run. Similarly, the complete

sense that there would be no competitive pressure whatsoever on the incumbent. It would tip the balance unfairly against, not only competition, but the traditionally established theory that competition is good for consumers.

6.2 Impact and future research

It may be of concern that the test proposed in this thesis leans excessively towards favouring dominant free high technologies at the expense of competition. However, as long as consumer welfare has been set as the main objective of competition policy, it is appears difficult to criticise favouring a dominant technology company that provides a continuously innovative service that is priced at zero for consumers.

Whilst the privacy issue is of course generally a grave source of concern in terms of the protection of consumers, it has not been clearly shown how competition law can resolve the issue. This does not mean that this thesis dismisses the privacy issue completely for future purposes. It is just that there needs to be a significantly larger amount of evidence to clearly show how a dominant company which has increasingly more access to personal data used for providing services can be harmful to consumers. The harm needs to be clearly identified. An example may illustrate the type of research that is needed. In competition law investigations of newspapers and news channels there is this concept of media plurality (the simultaneous existence of different mediums of news) which is set as a standard that needs to be achieved.² Initially it may appear to be a standard based on a very strict Ordoliberal interpretation that

elimination of competition in the search market or social networking market may allow the dominant companies to have the confidence to charge prices for services that were previously free. As long as there is a little competition from alternative free service providers, this is unlikely to happen.

² J Pheasant, S Rab & A Sukhtankar 'Case Comment: The Court of Appeal judgment in British Sky Broadcasting Group Plc v Competition Commission and the limits of media-plurality regulation' (2010) 31(8) ECLR 318

reflects that the existence of competition is a right on its own that does not need to be qualified. However, media plurality has been qualified clearly on consumer welfare grounds.³ It is important that consumers get different points of view of the news so that they are well-informed and are therefore not only affected by one potentially biased view.⁴

If the reduction of competition in free high technology markets is to be challenged, similar issues such as media plurality may have to be researched. For example, Facebook has both come under criticism for controlling politically sensitive content on their sites.⁵ Facebook was accused of not allowing freedom of speech by blocking hate speech. Another example, although not political, saw Google legally forced to delete particular links to news articles that gave descriptions of a particular person's non-payment of debt around ten years ago.⁶ Otherwise others would have biased views of him on the basis of something that happened years ago.⁷

In other words, dominant social networks and search engines can clearly be involved in content control that involves bias. But there needs to be research to prove that they are biased and whether even bias is justified in particular circumstances. For example, one could argue that the blocking of hate speech is biased towards a particular group's views; but it may still be justifiable to prevent the spread of those views for keeping society at peace. In the case of

³ Ibid- this can be substantiated by the fact that a head count of the number of media providers is not enough. Whether or not there is sufficient editorial control over the new media company being taken over for example is a factor to be taken into consideration. Hence there is a qualitative assessment of effect on consumers without any assumptions being placed on the number of competitors in the market.

⁴ Ibid

⁵ See Gabriel H Karger 'What Does Facebook Think Free Speech is For?' (*The Harvard Crimson*, 12 July 2017) available at <http://www.thecrimson.com/column/rights-and-wrongs/article/2017/7/12/karger-facebook-free-speech/> accessed on 10 September 2017

⁶ Case C-131/12 *Google Spain SL and Google Inc. v Agencia Española de Protección de Datos (AEPD) and Mario Costeja González* [2014] ECLI:EU:C:2014:317

⁷ Ibid

search engines and social networks this may be difficult as they are used for a wide range of purposes and searches. Political searches may simply be a small fraction of those searches.

Nonetheless if these issues are proven, only then would the proposed test have to be revised. However, another point that might require consideration in the first place is whether other bodies of law such as data protection law are best designed to deal with the potential privacy costs. As indicated in Chapter 2, stricter data protection laws can directly control the use of personal information and therefore limit the influence digital companies gain from possessing big data. This seems a quicker way than placing a large burden on competition authorities and judges to make complex evaluations and conclusions on what level of privacy is optimum for consumers who also want an effective free high technology service.

Finally, another issue that may be brought up is that this proposed test demotes the role of competition in the current relevant market as an important factor. This could be controversial as traditionally the reduction of competition in the current relevant market is a major issue in competition law that is embedded into its analytical framework. However, analysis of competition in the relevant market has not actually been replaced altogether; it has simply been replaced by the analysis of a very particular relevant current market i.e. the innovation market. It is a test that enables the EU Commission to take into account more directly the general competitive pressure coming from a potential looming disruptive technology, and subsequently allow a large free high technology company to expand its power in its current relevant market and continue providing a better service to consumers for free.

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