Pricing practices in digital markets: An abuse of dominance approach

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Thesis Abstract

Digital platforms have reshaped the world economic order. Competition laws around the world have required acclimatizing to developments occurring in digital platform markets with respect to new types of conduct being deemed anti-competitive by competition law enforcement bodies. Between 2016-2019, more than 30 competition agencies from around the world released reports regarding competition in the digital age. In the EU, the need to develop tools to assess abusive conduct by dominant digital platform firms led to the creation of the Digital Markets Act (DMA) in 2022 which is to act as an additional regulatory tool to Article 102 TFEU.

Cases relating to the exploitative nature of the data collection policy of Meta/Facebook have been initiated in Germany and the UK. Data collection has also allowed price personalization to take place which has the capability of resembling first-degree price discrimination which can be harmful to consumers when there is no increase in total output. There has been minimal discussion on the occurrence of predatory pricing in online platform markets through cross-subsidization being facilitated due to the nature of two-sided online platforms. The thesis considers the role of competition law in the assessment of these.

This thesis examines the occurrence of conduct that may resemble unfair pricing, unfair trading conditions, first-degree price discrimination, and predatory pricing which are prohibited under Article 102 TFEU. The thesis evaluates whether Article 102 TFEU can and should be used in such cases and tries to devise suitable remedies for certain digital platform market infringements by also considering the use of other relevant legislations such as the GDPR, Consumer Protection Directives, and the DMA. The thesis provides an evaluative contribution to the area of pricing-based abuse of dominance in digital platform markets.

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List of Abbreviations

AAC- Average Avoidable Cost

ACCC- Australian Competition & Consumer Commission

AG- Advocate General

AIC- Average Incremental Cost

ATC- Average Total Cost

AVC- Average variable Cost

BEUC- Bureau Européen des Unions de Consommateurs (The European Consumer Organisation)

CCI- Competition Commission of India

CJEU- Court of Justice of the European Union

CMA- Competition and Market Authority

COMPAT- Competition Appeal Tribunal

CRD- Consumer Rights Directive

CSS- Comparison Shopping Service

DA- Digital Authority

DCD- Digital Content Directive

DMA- Digital Markets Act

DMU- Digital Markets Unit

DOJ- Department of Justice

DSA- Digital Services Act

EC- European Commission

EDPS- European Data Protection Supervisor

EU- European Union

FCA- Financial Conduct Authority

FCJ- German Federal Court of Justice

FTC- Federal Trade Commission

GAFAM- Google, Amazon, Facebook, Apple, and Microsoft

GAMAM- Google, Amazon, Meta, Apple, and Microsoft

GC- General Court

GDPR- General Data Protection Regulation

GWB- Gesetz gegen Wettbewerbsbeschränkungen (German Competition Act)

LRAIC- Long-Run Average Incremental Cost

MC- Marginal Cost

NCA- National Competition Authorities

NYT- New York Times

OECD- organisation for Economic Co-operation and Development

OFT- Office of Fair Trading

OS- Operating System

R&D- Research and Development

SSNDQ- Small but Significant and Non-Transitory Decrease in Quality

SSNIP- Small but Significant Non-transitory Increase in Price

TEU- Treaty on the European Union

TFEU- Treaty on the Functioning of the European Union

UCP- Unfair Commercial Practices

UCT- Unfair Commercial Terms

UK- United Kingdom

US- United States

WTP- Willingness to Pay

Tables and Figures with corresponding chapter and page numbers

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Introduction to the thesis

"The transformation process caused by digitalization is comparable to a new industrial revolution."-Andreas Mundt, President of the German Cartel Office (Bundeskartellamt)[1]

The move from analogue to digital technology has transformed the way human life exists currently compared to how it existed before their invention. One part of human life that has changed drastically is the way business has been conducted between people by virtue of heavy reliance on digital technologies such as the internet, computers, cellular phones and social media. This reliance has led to the growth of some digital technology companies to the top companies in the world.[2]

The growth of these firms has resulted in various benefits to users of their products and services which did not exist before. Some of these benefits are: users being able to connect with each other using their device from distant geographic locations,[3] users being able to instantly choose and buy products of their choice without having to engage in any physical activity,[4] and users being able to learn about various matters of the world without referring to a book but instead by relying on their devices.[5] While there are other benefits as well, these three benefits have been highlighted because they will be points of discussion in this thesis. Along with these benefits, there are also some costs that users need to incur. Some of them are: sharing personal information and becoming dependent on the firms. The cost that society incurs is that these firms have been allowed to become monopolies or significantly dominant in their respective markets and arguably, have made those markets uncontestable.[6] There may be many reasons

[1] Andreas Mundt, 'Sixty years and still exciting—the Bundeskartellamt in the digital era' (2018) 6(1) Journal of Antitrust Enforcement 1.
[2] Statista Research Department, 'The 100 largest companies in the world by market capitalization in 2022', (Statista, 5 August 2022), https://www.statista.com/statistics/263264/top-companies-in-the-world-by-market-capitalization/. Google, Amazon, Facebook (changed to Meta in 2021), Apple and Microsoft (popularly known as GAFAM or the Big Five Tech Giants) were in the top eight largest companies in the world by market capitalization.
[3] Social media platforms have been able to connect users from around the world which telephones using an analogue line could do only to a minimal extent.
[4] The time span between ordering and receiving the product is one of the main developments rather than the idea of being able to purchase products from home which has existed for over hundred years; See Recollections, 'The early history of mail-order catalogs', https://recollections.biz/blog/the-early-history-of-mail-order-catalogs/.
[5] This refers to the use of search engines such as Google.
[6] J. Clement, 'Google, Amazon, Meta, Apple, and Microsoft (GAMAM)' – (Statista, Jul 18, 2022) https://www.statista.com/topics/4213/google-apple-facebook-amazon-and-microsoft-

for this such as their expertise in those markets, efficiency, understanding of users, anti-competitive actions, or other illegal actions. The focus of this thesis will be to consider some of the anti-competitive actions of dominant digital technology firms, in particular, digital platform firms. The area of law that deals with such actions of firms is called competition law (in the EU and most of the world) and Antitrust law (mainly in the US). The focus of this thesis is on EU Competition Law as it has been noted to be one of the major influencers of competition policy throughout the world.[7]

One of the main reasons that competition laws around the world have been created is to prevent dominant firms from abusing their dominance in the market that they conduct their business in or in adjacent markets (in some cases also unrelated markets). Due to the nascent nature of these businesses compared to traditional brick-and-mortar businesses, it is important to understand new types of infringements that may be associated with dominant firms in online markets with respect to the application of competition law. This has led to questions on whether competition laws are still equipped to deal with new types of conduct and determine whether they are infringements requiring enforcement action.

This thesis does not have the scope to deal with all the issues that relate to competition policy in digital markets. Within the three pillars of competition law (Abuse of dominance, Anti-competitive agreements, and Mergers), the focus of this thesis will be on abuse of dominance in digital markets. The focus on abuse of dominance is due to the fact competition authorities throughout the world are trying to cope with the increasing unilateral influence of dominant digital platform firms such as Google, Facebook and Amazon.[8]

Within digital markets, the thesis will mainly deal with digital platform firms owing to the rise in novel competition policy issues arising due to the nature of different digital platforms such as their two-sidedness, network effects (direct and indirect), asymmetric pricing structures, and collection and combination of user data. For this the thesis mainly engages with Article 102 TFEU which is the provision that deals with abuse of dominance related aspects within the EU. In addition to that, the thesis also considers the use of the Digital Markets Act Regulation 2022

gafam/#topicHeader__wrapper. This shows the high market shares of these five firms in their respective markets.

[7] Anu Bradford, Adam S. Chilton, Katerina Linos, and Alex Weaver, 'The Global Dominance of European Competition Law Over American Antitrust Law', (2019) 16 Journal of American Legal Studies 731; See also Anu Bradford, 'The Brussels Effect', (2015) 107 Northwestern University Law Review 1.

[8] See Footnote 10 on various Reports.

as a supplementary tool for digital market abuses which may not be caught by Article 102 TFEU.

Over the course of its five substantive chapters, this thesis contributes to the assessment of pricing related abuses in digital platform markets by providing an evaluative analysis on certain infringements that are new to competition law such as:

1) First-degree price discrimination through price personalization;

2) Imposing unfair trading conditions through unclear data extraction policies;

3) Excluding competitors by self-preferencing which in turn leads to exploiting consumers by providing unauthentic results in return for collecting information on their preferences; and

4) Cross-subsidizing between different sides in a two-sided digital market.

Between 2016 to 2019, 49 Reports on digital markets were released by around 30 different competition agencies, competition policy centres and Government bodies to opine on matters relating to regulation of competition in digital markets.[9] Among these, 4 Reports were seen to be particularly significant due to their emergence from established competition jurisdictions along with the fact that they are not confined to particular digital platforms such as e-commerce platforms or social media platforms (as is the case with some other reports)[10] in their assessment, but rather use a wider ambit in their analysis and recommendations.[11] These were: 1) 'Report by the Committee for the Study of Digital Platforms' by the University of Chicago Booth School of Business (henceforth Chicago Booth Report), [12] 2) 'Competition Policy for

[9] Stigler Center, 'World Reports on Digital Markets', (May 15, 2019), https://www.chicagobooth.edu/research/stigler/events/antitrust-competition-conference/world-reports-on-digital-markets.

[10] Competition Commission of India, 'Market Study on E-Commerce in India', (08-01-2020), Key Findings and Observations, which only deals only with the E-commerce sector in India; See also Japan Fair Trade Commission, Guidelines Concerning Abuse of a Superior Bargaining Position in Transactions between Digital Platform Operators and Consumers that Provide Personal Information, etc. (December 17, 2019), which mainly deals with information acquisition from consumers; See also Stefan Haasbeek, Jan Sviták and Jan Tichem, , 'Price effects of non-brand bidding agreements in the Dutch hotel sector', (7 June 2019), Netherlands Authority for Consumer and Markets, which deals with a specific sector; See also Note by United Nations Conference on Trade and Development Secretariat, 'The value and role of data in electronic commerce and the digital economy and its implications for inclusive trade and development', (3–5 April 2019), which dealt with E-Commerce and trade. These 4 are examples of Reports by Competition Authorities in specific digital market areas.

[11] There is another Report that deals with a wider area as well- Comisión Federal de Competencia Económica – COFECE, 'Rethinking competition in the Digital Economy', (February 2018), which does not engage with the issues as thoroughly as the 4 Reports chosen in the Chapter possibly because it predates them and because its point of view is restricted to members of the Competition Authority and no technical expert.

[12] Fiona Scott Morton, Pascal Bouvier, Ariel Ezrachi, Bruno Jullien, Robert Katz, Gene Kimmelman, Douglas Melamed and Jamie Morgenstern, 'Market Structure and Antitrust Subcommittee, Committee for the Study of Digital Platforms', (2019), George J. Stigler Center for the Study of the Economy and the State, The University of Chicago Booth School of Business.

the digital era' Report, European Commission (henceforth EU Digital Report), [13] 3) 'the unlocking digital competition Report' of the Digital Competition Expert Panel, Government of UK (henceforth Furman Report), [14] 4) The ACCC Digital Platforms Inquiry, Final Report (henceforth ACCC Report).[15] An interesting fact about the 4 Reports is that each of them (except the ACCC Report whose author details aren't published) has an expert on the technical side and the portfolio of the authors is not restricted to law or economics which is usually the case in competition policy papers or reports.[16] This shows the need for technical expertise in matters relating to digital technology and digital platforms to prepare competition policy effectively for digital markets. This thesis' purview is however restricted to a legal point of view owing to the author's background. The thesis relies on the works of economists and technical experts to further competition policy-oriented arguments.

The First Chapter of the thesis evaluates the various concepts relating to digital markets that will be considered in the substantive chapters and will try to highlight the challenges that competition law faces as a result of the emergence of digital technologies and digital markets. This will be done by assessing expert reports that were published by various competition policy expert groups around the world that tried to identify challenges that will be faced by competition authorities currently and in the future. It will also consist of other relevant literature that assist in explaining some key concepts relevant to online platform markets and this thesis.

The First Chapter concludes by noting that most Reports and the DMA discuss pricing related issues to a lesser extent than other abuses as will be shown in the chapter. One of those aspects is related to personalized pricing which can have beneficial features for consumers, but may also be used to abuse them.[17]

This prompted the need to research a new phenomenon that has arisen due to the emergence of data being used to discriminate between consumers called price personalization. This refers to the ability of a firm to price a product at the exact or close to the exact willingness to pay of

[13] Jacques Crémer, Yves-Alexandre de Montjoye, Heike Schweitzer, 'Competition Policy for the Digital Era EU Digital Report- Final Report' (2019) European Commission.
[14] Jason Furman, Diane Coyle, Amelia Fletcher, Phillip Marsden and Derek McAuley, Unlocking Digital Competition, Report of the Digital Competition Expert Panel, UK Government, March 2019.
[15] ACCC Digital Platform Inquiry, Final Report, (2019).
[16] Yves-Alexandre de Montjoye (EU Digital Report) is an industrial expert specializing in AI and computational privacy, Jamie Morgenstern (Chicago Booth Report) is an assistant professor in Computer Science & Engineering, Derek Mcauley (Furman Report) is an academic in computing, computer architecture, networking, distributed systems and operating systems, and the ACCC Report conducted extensive public engagement while publishing its final report; See also Furman Report (n 14) [3.29]. The CMA has also notably created a data analytics team.
[17] See Furman Report (n 14) 15.

their consumers based on information that has been collected on them. The second chapter of the thesis tries to assess from a law and economics viewpoint whether price personalization has any anti-competitive effects. This prompts the question whether in the EU, competition law (Article 102(c) TFEU) is the right tool to deal with any harms that arise from the practice or if data protection, consumer protection or anti-discrimination legislation would be more suitable tools to engage with any issues. One of the issues regarding using competition law in cases involving price personalization is the varying effect on consumer welfare (which is one of the objectives of EU Competition law and is measured by considering the price a consumer is willing to pay subtracted from the price actually charged) as some consumers are provided a lower price while others are provided a higher one. This is one of the reasons why competition authorities usually engage with price discrimination cases only when they have an exclusionary effect as it is hard to compute whether there is an overall loss or gain in consumer welfare due to the varying effects of price discrimination.[18] Therefore, the chapter asks the question whether Article 102(c) TFEU can and should be used in end consumer price discrimination and if yes, whether it can be used in price personalization cases.

The chapter evaluates the different case laws on price discrimination by considering primary-line injury and secondary-line injury cases and finds that secondary-line injury cases may be the relevant line of cases that may be equated to price personalization. The chapter contributes to the literature by considering normative perspectives that may have informed current case laws relating to price discrimination under Article 102(c) TFEU and evaluates whether price personalization falls within that scope. This prompts the consideration of other legislations that relate to consumer protection and non-discrimination to assess whether they may be more suitable than competition law in the case of price personalization. The chapter concludes by arguing that personalized pricing should only be prohibited using Article 102(c) TFEU or other legislations when there is no benefit in terms of redistribution of wealth between wealthier and poorer consumers or no newer consumers are added to the market. The chapter also calls for transparency and disclosure regarding the parameters of discrimination between consumers as that maintains the trust between the firm and the consumers and sustains a practice like price personalization which is seen to have some benefits if the intent of the firm is not abusive.

Price personalization is only possible as a result of data being collected on consumers. Some firms provide their service to end users for ‘free’ in return for collecting information on them

[18] This aspect will be further developed in Chapter 2 of the thesis.

such as Google and Meta/Facebook. The two-sided nature of zero-price online firms allow them to price one side at a zero-price (usually the consumer side) while charging money to the other side (usually the advertiser side). This method of conducting business is also seen in the case of newspapers that are provided to consumers for free by charging the advertisers. Data collection is an aspect that plays a vital role that facilitates online platform firms such as social media firms and online search engines to provide their services for free (no monetary price) to consumers as the firms are able to monetize the data by selling it to third-party firms. This raises questions regarding the validity of the how consumer data is collected by dominant online firms leading to the third chapter of the thesis questioning whether unfair pricing or unfair trading conditions under Article102(a) TFEU may be applicable to cases related to data extraction in the EU. In order to consider this, the chapter discusses in detail past cases relating to unfair pricing and unfair trading conditions in brick-and-mortar markets and tries to see whether they can be applied to data extraction cases. One of the learnings was that competition law may not be the appropriate tool by itself to deal with such cases which led to the consideration of data protection and consumer protection EU legislations by also referring to two recent cases: the case of *Facebook* in Germany, and the *Google Shopping* case.[19]

The chapter evaluates the current literature on the application of competition law to zero-price online platform markets by analysing whether competition, data protection (GDPR) and consumer protection laws (Unfair Commercial Practices Directive, Unfair Commercial terms Directive, Digital Content Directive, and Consumer Rights Directive) can play a role together in dealing with data extraction cases. One of the contributions in the chapter is the consideration of consumer harm in terms of unauthentic search results being provided for data in the *Google Shopping* case which can also amount to an unfair trading condition under Article 102(a) TFEU. One aspect that is noticed in this chapter is the large amount of data that is collected on consumers. However, the chapter mainly considers 'how' consumer data by a dominant firm rather than 'how much' data is collected as the bargaining position of the firm creates an imbalance between itself and the consumer when it comes to acceptance of terms by end users. One notion that has been dismissed in the German *Facebook* case and by commentators is the use of unfair pricing. This chapter evaluates whether there is a way that both parts of Article 102(a) TFEU can be used jointly in cases concerning excessive data collection. The chapter also considers CJEU's decision in the case of *MetaPlatforms/Facebook* in Germany of 04 July 2023 along with the opinion of AG Rantos. One other recent development that will be discussed

[19] See Chapter 3 for detailed analysis on both. See 3.3 and 3.5.

is the case against Meta/Facebook that had been initiated in the UK by Liza Gormsen in 2022.[20] The main contribution of the chapter is that it assesses from a legal point of view whether Article 102(a) TFEU ought to be used with the GDPR and Consumer Protection Directives. The Chapter also asks whether the DMA could act as a more efficient tool in engaging with data collection issues compared to Article 102 TFEU and other legislation.

Chapter four of the thesis considers a unique problem of cross-subsidization of prices between different market sides in two-sided online platform markets. Predatory pricing (pricing below a certain measure of cost, usually Average Variable Cost) by a dominant firm is prohibited under most competition law jurisdictions including the EU and the US (although they have different standards to prove what price can be termed predatory).[21] In addition to that, there are several explanations on why a firm may choose to sacrifice current profits for a future gain which help in understanding the test for predatory pricing assessment in the US and the EU which are different. When the tactic is used by a firm that has more than one side such as an online shopping website or newspaper, it may be used to price discriminate between the different sides in such a manner that one side's lower prices get cross-subsidized by the other side paying more. The chapter explores past cases where cross-subsidization had a predatory element involved in them and in some cases resulted in finding of an abuse of dominant position. For this the chapter consider cases from the EU as well as the US to assess how predatory pricing is viewed and to also assess whether the current test used in both jurisdictions would be suitable to assess predatory pricing in two-sided platform markets.

The chapter evaluates the different theories on predatory pricing and carries out case law analysis to determine that two-sided online platforms may require a modified test to assess predatory pricing as the current one may seem underinclusive. This relates to the nature of platform markets where there are strong network effects and low marginal cost (MC) for acquiring new consumers help in easier cross-subsidization. Therefore, the chapter proposes a new test for assessment of predatory pricing in the EU under the Article 102 TFEU regime and the DMA regime. Under the Article 102 TFEU, this involves extending the rule established in the case of *AKZO v. Commission* relating to a price charged by a dominant undertaking being presumed to be abusive if it is found to be below Average Variable Cost (AVC) to a modified rule that presumes prices charged below Average Total Cost (ATC) to be abusive as that includes the long run costs of the firm taking into consideration that the current test *AKZO* test

[20] The CAT has subsequently decided the case.
[21] See 4.2.

may not be suitable for firms with low MC (AVC is a proxy for MC) like two-sided digital platforms. The test is also proposed for firms that are designated as gatekeepers (which would be similar to a finding of super-dominance under Article 102 TFEU) under Article 3 of the DMA. This new test is proposed for the DMA regime as well as the Article 102 TFEU regime as predatory pricing has not been considered in the DMA obligations under Article 5 or 6 of the DMA. The test also includes the possibility for an objective justification to be claimed which does not currently exist in the DMA but does exist within the scope of Article 102 TFEU.

Having studied new types of conduct relating to pricing, another important aspect that is to be considered is what are the most effective solutions to these issues in the form of remedies. This prompted the need for a chapter on the remedies in the case of certain abuses involving digital platforms in the fifth and final substantive chapter of the thesis. The fifth chapter considers effective remedies for all the issues mentioned in the second, third, and fourth chapter, and also considers whether competition authorities and regulatory authorities need to interact when it comes to setting digital market remedies. The chapter goes on to discuss certain radical remedies that have been envisaged by commentators and tries to apply those remedies and those provided also considered within the DMA obligations to seven infringements that relate to abuse of dominance in digital markets which include the three pricing related abuses discussed in Chapter two, three and four. The chapter proposes the use of Article 102 TFEU mainly to remedy the harms but also considers the use of the DMA in this pursuit. The pricing related infringements discussed in the previous three chapter will be included here along with self-preferencing, tying essential inputs, and data portability also being considered. The reason for their inclusion is because they provide important lessons on the effectiveness of remedies in digital markets owing to recent case laws concerning these three conducts.

The conclusion will clarify how the five substantive chapters are linked with one another by identifying general themes relating to Article 102 TFEU and other particular aspects related to digital markets. The thesis will conclude by evaluating the use of Article 102 TFEU in the various types of conduct discussed in the five substantive chapters and evaluate the best way forward in terms of its use. The conclusion will also point out limitations in this thesis along with suggestions for future research.

The thesis carries out an evaluative analysis within the five substantive chapters. The chapters consider case laws of the European Union (EU), UK, the US, and some other jurisdictions to study the legal development of price discrimination, unfair pricing, unfair trading conditions,

and predatory pricing. The thesis focuses on the EU and Article 102 TFEU in particular due to the recent developments in case law relating to digital markets which inform the area of study. The reason that the thesis focuses on EU competition law is because it directly influences competition enforcement within all its 27 Member States and also informs the laws of many other jurisdictions. The US perspective is also considered within the scope of study especially in the area of predatory pricing as the diverging approach of the EU and the US inform the best practice in the area when digital markets are considered.

Chapters two, three, and four also consider the use of economics in their analysis of the pricing infringements. Economics is a field that plays a significant role in competition law cases worldwide. The thesis will use theoretical contributions as well as studies that inform the effectiveness of competition laws which helps establish best practice under Article 102 TFEU and other EU legislation when pricing infringements are concerned. Being a thesis in law, the research is doctrinal in nature and carries out an evaluative study. The contribution of the thesis is that it brings to light analysis on pricing practices in digital markets by considering the method of evaluation, assessment and process of determining remedies.

Each chapter will set its own parameters of assessment in the respective chapter introductions. Since chapters two to four deal with specific types of digital market infringements related to (but not confined to) Article 102 TFEU, they will introduce each concept and the literature on it within the chapter as the critical perspectives provided in the thesis relate to the description of the literature on each topic.

Literature

Considering the evaluative nature of this thesis, each chapter will engage with the literature on the area that it seeks to engage with as the literature is central to the contribution(s) provided in this thesis. However, chapter 1 of the thesis is descriptive in nature which considers relevant literature regarding fundamental concepts relating to digital markets that applies to the rest of the thesis. The discussion on the DMA will also be used throughout the thesis.

Main Contributions

The thesis consists of five substantive chapters with four of them contributing to the current literature. Chapter 1 provides the conceptual basis for the rest of the chapters by discussing the scope of Article 102 TFEU and the DMA. It sets the scene for the 4 substantive Chapters of the thesis by considering contributions from major Reports on the reform of competition law

in the digital era. The chapter notes the lack of adequate discussion regarding pricing related abuses in the reports paving the way for the further chapters.

Chapter 2 contributes to the current literature by considering whether price personalization can and should be assessed using Article 102(c) TFEU by highlighting the norms that may play a role in the assessment and suggests a way forward based on previous contributions. The chapter contributes to the literature by finding that Article 102(c) TFEU can apply to price personalization using secondary-line injury cases as there may be allocative efficiencies to be realised through price personalization.

Chapter 3 provides an in-depth analysis of existing the literature on Article 102(a) TFEU and its relation to data collection by bringing to light new developments in the area that have not been considered yet in the literature. The chapter also discusses the non-consideration of exploitative harms in the case of *Google Shopping* towards end users which have not been considered in the past literature. The chapter contributes to the current literature by including the latest developments in the area in terms of case laws which have not yet been part of past papers and suggests the joint usage of competition, data protection and consumer protection laws to prevent excessive data collection by dominant firms.

Chapter 4 proposes a new test (presumption of abuse when Price is below Average Total Cost) under Article 102(a) TFEU to assess firms that have significant market power in digital markets, the parameters of which are based on Article 3 DMA. There is a proposal to also include a DMA obligation related to predatory pricing as the obligations in Article 5 and 6 of the DMA do not include any such provision. The proposed test is justified by considering the nature of platform markets (strong network effects and low marginal costs). There are similarities made between platforms and telecoms in relation to low marginal costs and high network effects. The chapter also considers the need for the new test due to the ability of two-sided platforms to cross-subsidize losses more easily by virtue of their nature.

Chapter 5 contributes to the literature on imposing remedies to specific digital market abuse of dominance cases. The chapter considers the possible remedies that may be offered, the benefits that may arise from the remedies, and the cost of imposing those remedies. These possible remedies are based on past literature that will be discussed in the chapter. The chapter also brings to light the use of the DMA and uses Article 5 and 6 DMA obligations to ascertain the most effective remedies in the seven infringements that it will consider remedies for.

Overall, the thesis contributes to the assessment of some pricing related abuse of dominance cases in digital markets and proposes competition law intervention in the case of excessive data collection and predatory pricing, but suggests that competition law be restricted in its use in the case of price personalization. The remedies chapter also paves the way for an effective method of structuring remedies that may help resolve issues that result from new types of infringements that are exclusive to digital markets.

CHAPTER 1: Competition law in digital markets perspectives: A conceptual basis

1.1 Introduction

Unilateral actions of dominant digital platform firms that have led to digital markets being less competitive and contestable have led to many policy makers around the world calling for tightening up of current competition laws with respect to their implementation in the digital age including past and present present Commissioners of the European Union, EU, US Federal Trade Commission (FTC), the competition law enforcer in the United States, as well as other competition authorities throughout the world Ex-FTC Commissioner, Terrell McSweeney noted that technology has allowed firms to predict things about users that they themselves might not have been aware of.[22] The Ex-FTC commissioner felt that the FTC needs tools in addition to existing ones in order to protect consumers in a digital economy. This requires bringing in technology experts to weigh in on ways of regulating digital firms on the lines of security, privacy, safety and such features.[23]

The President of the German Federal Cartel Office (Bundeskartellamt), Andreas Mundt echoed a similar opinion and stated that the transformation process caused by digitalization is comparable to a new industrial revolution and noted that there is concern regarding the control of digital infrastructure in the hands of few firms.[24] He also disclosed that the Bundeskartellamt is constantly working to see how their work can become more efficient and that all efforts are being made to protect competition and consumers in the digital economy.[25]

One of the most famous calls for a digital market enforcement revolution has been by European Commissioner for Competition, Margarethe Vestager, whose profile in the Commission was amended from 'Commissioner for Competition' in 2014 to also include 'Commissioner for A Europe fit for the digital age' in 2019. In a famous speech from 2021 at Humboldt University, she said "*For decades, such gatekeepers were left almost free to act as they wished. A few years ago, the European Union spearheaded a global effort to reverse such a trend. With an ambition to restore fairness and protect people, we created a global standard in terms of protecting*

[22] Terrell McSweeny, 'FTC 2.0: KEEPING PACE WITH ONLINE PLATFORMS' (2018) 32 Berkeley Technology Law Journal 1027.
[23] ibid.
[24] See Mundt (n 1).
[25] ibid 4.

personal data…."[26] Here she refers to the way gatekeepers (particularly GAFAM)[27] have been allowed to function freely without any regulatory checks and advises for the need to regulate them in order to protect rights of citizens.

Competition in the digital age is a topic that has been and is being discussed globally by competition agencies, international organisations (mainly the Organisation for Economic Co-operation and Development (OECD)), and other Government and Non-Government policy bodies.[28] There have also been discussions and suggestions on the optimal way of regulating digital platform firms with some suggesting separate tools to be envisaged to regulate digital markets and core platforms such as the establishment of a Digital Markets Unit (DMU) by the Competition and Markets Authority (CMA) of the UK.[29]

In the US, in June 2019, an Antitrust Subcommittee was formed by the House Judiciary Committee of the United States to assess the state of competition in digital markets by investigating whether dominant digital firms engaged in anti-competitive activities.[30] The Antitrust Subcommittee investigated Google, Amazon, Facebook and Apple and found each of them to have had a durable market power in their respective markets in their Majority Staff Report published in October 2020.[31] Based on this assessment, they provided recommendations to- 1) Restore competition in digital economy, 2) Strengthen Antitrust laws, and 3) Revive antitrust enforcement.[32] This was also followed by initiation of cases by the FTC against Meta/Facebook in 2020 and 2021.[33]

The European Commission (Henceforth EC or the Commission) had sent out a communication on 09 March 2021 to other EU bodies to pave the way to empower European citizens and businesses digitally by 2030.[34] This led to the 'Digital Decade Policy Programme 2030'

[26] European Commission speech, 'Speech by EVP Margrethe Vestager at the Humboldt Lectures About Europe - "Democratic values in a digitalised world"', (European Commission, 25 October 2021), https://ec.europa.eu/commission/commissioners/2019-2024/vestager/announcements/speech-evp-margrethe-vestager-humboldt-lectures-about-europe-democratic-values-digitalised-world_en.
[27] See Article 3(1) of the DMA.
[28] See Introduction.
[29] UK Government, 'Digital Markets Unit', https://www.gov.uk/government/collections/digital-markets-unit.
[30] House Judiciary Committee- Press Releases, House Judiciary Committee Launches Bipartisan Investigation into Competition in Digital Markets, 3 June 2019.
[31] U.S House of Representatives, 116th Cong., 'Report on investigation of Competition in Digital Markets: Majority Staff Report and Recommendations', (October 2020).
[32] ibid 20-21.
[33] Federal Trade Commission- Press Release, 'FTC Sues Facebook for Illegal Monopolization', (09 December 2020), https://www.ftc.gov/news-events/news/press-releases/2020/12/ftc-sues-facebook-illegal-monopolization; See also, *Federal Trade Commission v. Facebook Inc*., Case No.: 1:20-cv-03590-JEB.
[34] European Commission Communication, 2030 Digital Compass: the European way for the Digital Decade, 09 March 2021.

Decision being adopted by the European Parliament and Council on 14 December 2022.[35] Some of the objectives within Article 3 of the Decision are promoting of digital fundamental rights (Article 3(a)), securing interoperability between digital technologies (Article 3(e)), ensuring that small and medium enterprises are able to compete (Article 3(f)), and ensuring fair treatment of users during the digital transformation (Article 3(i)). Many of the objectives of the Digital Decade 2030 Decision have close ties to aspects that have also been discussed within the scope of competition policy for digital markets. In fact, competition policy along with trade and industrial policy is sought to be one of the tools that needs to be used by the Commission to achieve the digital transformation.[36]

To provide new tools to regulate digital platform firms in the EU, the Commission had proposed sector specific legislation called the Digital Markets Act (DMA) and the Digital Services Act (DSA)[37] which were later accepted by the European Parliament and Council in March 2022.[38] On 1 November 2022, the DMA became applicable across the EU in the form of Regulation (EU) 2022/1925.[39] The focus of this thesis will be on the DMA (in addition to Article 102 TFEU) which was adopted to make digital markets more contestable,[40] rather than the DSA which focuses on making online environments safer and more trusted for users which is a very important area of study and research but outside the scope of this thesis.[41] The nature and characteristics of digital platforms are the reason that separate legislation has been envisaged for them in the EU as it has been stated in the Recitals that Articles 101 and 102 may not be sufficient to effectively address the challenges posed by digital gatekeepers.[42]

Prior to any discussion of a separate legislation for digital markets due to the inability of competition laws to sufficiently address the challenges posed by digital platform firms, the scope and limits of Article 102 TFEU need to be understood by considering past case laws. Notably, Article 101 TFEU and EU Merger Control Regulation (EC Reg. 139/2004) are also relevant. However, the thesis' focus is on unilateral pricing related conduct by dominant digital

[35] Decision (EU) 2022/2481 of the European Parliament and of the Council of 14 December 2022 establishing the Digital Decade Policy Programme 2030.
[36] ibid Recital [3].
[37] Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market for Digital Services and amending Directive 2000/31/EC (Digital Services Act).
[38] European Parliament- Press Release, 'Deal on Digital Markets Act: EU rules to ensure fair competition and more choice for users', (24-03-2022).
[39] Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act).
[40] ibid Recital [7].
[41] See DSA Recital [4].
[42] See DMA Recital [5].

platform firms such as unfair pricing and trading conditions, predatory pricing, and price discrimination which have fallen under the scope of Article 102 TFEU in past cases.

Section 1.2 of this chapter will analyse existing Article 102 TFEU jurisprudence that will be used throughout the thesis. Section 1.3 of this Chapter will engage with the characteristics of digital platforms which help understand the necessity of needing a sector specific regulatory regime. The focus will be on characteristics that will become points of discussion in Chapter 2 to 5. Section 1.4 will provide further analysis on how digital platforms need to be assessed and also provide a general overview of aspects that will be covered in Chapter 2 to 5. Section 1.5 will introduce the DMA and its provisions as they will be used alongside Article 102 TFEU throughout the thesis.

Throughout the thesis, the question that will be asked constantly is whether Article 102 TFEU is fit to deal with specific forms of conduct which may fall under the scope of abuse within the provision. The use of the DMA will be considered alongside the use of Article 102 TFEU as they are complementary but separate tools as will be explained in Section 1.5.

1.2 Article 102 TFEU- Goals and objectives of Article 102 TFEU: Reflection of the Commission and Courts' past approach to Article 102 TFEU cases

In 2022, Competition Commissioner, Vestager stated that EU competition policy pursues a multitude of goals such as "…fairness and level-playing field, market integration, preserving competitive processes, consumer welfare, efficiency and innovation, and ultimately plurality and democracy".[43] Stylianou and Iacovides' work commissioned by the Swedish Competition Authority on determining the goals of EU competition law through an extensive empirical study of past EU cases, commissioner speeches and academic pieces found that the process of competition is prioritized in the EU rather than the outcome.[44] They found that a multitude of goals are pursued in EU competition law and that welfare, efficiency, fairness, and maintaining the competitive process are all considered to be within the scope of EU competition law.[45]

[43] European Commission Speeches, 'Keynote of EVP Vestager at the European Competition Law Tuesdays: A Principles Based approach to Competition Policy', 25 October 2022, https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_22_6393.
[44] Konstantinos Stylianou and Marios Iacovides, 'The goals of EU competition law: a comprehensive empirical investigation' (2022) Legal Studies 1-29, doi:10.1017/lst.2022.8.
[45] ibid 24-29.

Considering their findings, it is important to flesh out what the scope of Article 102 TFEU is for the purpose of this thesis. This will later on help understand the requirement for separate regulatory regimes such as the DMA which seek to engage with actions that may be outside the scope of Article 102 TFEU.

Abuse of dominance cases in the EU have been dealt with using Article 102 TFEU since the case of *United Brands* which provides the conceptual basis for many pricing-based abuses that will be considered in this thesis.[46] The term dominance or dominant position denotes a position of economic strength which enables a firm to act independently of its competitors and customers.[47] Such a firm has a special responsibility to not impair markets due to its unilateral conduct.[48] The initial position of the Commission and EU Courts was to use a form based approach to come to findings of abuse of breach of this special responsibility especially when some pricing related abuses such as offering of rebates were concerned.[49]

1.2.1 More economic approach- The As-Efficient-Competitor test

In 2005, the Economic Advisory Group on Competition Policy (EAGCP) which supports DG Competition in its economic reasoning in competition policy,[50] suggested a move to a more effects-based approach in assessing Article 102 TFEU (ex-Article 82 EC) cases similar to the US' 'rule of reason' approach in deciding such cases.[51]

It was only in 2009 when the Commission proposed a guidance for Article 102 TFEU enforcement (ex-Article 82 EC) which heralded a more effects-based approach to pricing-based abuses which would require consideration of economic data to determine whether a competitor that is as-efficient as the dominant firm has been eliminated.[52] This had arguably been a positive step taken by the Commission in order to prevent situations where inefficient competitors look to Article 102 TFEU for protection against more efficient firms in terms of costs and prices.

[46] See Case 27/76, *United Brand v Commission*, ECR 1978-00207. Notably, Case 26/75, *General Motors v Commission*, ECR 1975-01367, was decided before *United Brands.*
[47] ibid [65].
[48] Case 322/81, *Michelin v Commission*, [1983] ECR 3461 ECJ [57].
[49] Case 85/76 Hoffmann-La Roche v Commission [1979] ECR 461 [89-90].
[50] European Commission, Economic Advisory Group on Competition Policy (EAGCP), Competition Policy, https://competition-policy.ec.europa.eu/chief-competition-economist/eagcp_en.
[51] Jordi Gual et al., 'Report by the EAGCP: "An economic approach to Article 82"', July 2005
[52] Commission Guidance [23-27].

This line of thinking was carried forward even in the CJEU's subsequent decisions in *TeliaSonera*[53] and *Deutsche Telekom*.[54] In both cases, the CJEU refers to methods other than the normal course of competition which lead to the exclusion of equally efficient rivals. This refers to practices such as pricing below short run incremental/ avoidable costs,[55] engaging in practices such as margin squeeze (offering end users a lower price and intermediate customers a higher price),[56] exclusivity rebates,[57] in addition to other practices that the Commission may declare 'other than the normal course of competition'.

Interestingly, the Courts and the Commission seem to have regressed back to a form based analysis in *Tomra Systems*, where the dominant firm had offered individualised agreements to intermediate buyers for their reverse vending machines (RVMs).[58] Tomra had offered individualised rebates to their customers by conditioning incentives based on exclusive purchase from them which had the conditions to qualify as a loyalty rebate.[59] The CJEU referred to the suction effect where customers view the price offered by the firm as very low even though the overall price may be more than the cost due to it being spread over a large number of units.[60]

The CJEU argued that the exclusionary effect was already caused and that the Commission was under no obligation to see whether the overall price charged was lower than Long Run Average Incremental Cost (LRAIC)/ Average Total Cost (ATC) which an efficient competitor may be able charge.[61] This approach continued to be followed in the General Court's *Intel* judgment where it held that the Commission is under no obligation to carry out an As-Efficient-Competitor test.[62] It was not until the CJEU's *Intel* judgment did a clear change in approach get reflected as it was held in that case that Article 102 TFEU does not seek to protect less efficient competitors but rather only that type of conduct which may not seem to be competition on the merits and may lead to elimination of equally efficient competitors.[63] With respect to

[53] Case C-52/09, *Konkurrensverket v TeliaSonera Sverige* AB, EU:C:2011:83 [40].
[54] C-280/08 P, *Deutsche Telekom v Commission*, EU:C:2010:603 [177].
[55] Referring to predatory pricing. Note that prices below average long run incremental costs may be abusive under the current EU test.
[56] See *TeliaSonera* [4-10]. This an example of a margin squeeze where the Swedish fixed telephone network operator offered price below short-run incremental cost to end users and at higher prices to wholesale users.
[57] See *Intel v Commission* [11]. The case involved offering of rebates on the condition that all requirements be purchased form Intel.
[58] Case C-549/10 P, *Tomra Systems ASA and Others v European Commission*, EU:C:2012:221.
[59] ibid [15].
[60] ibid [78].
[61] ibid [80].
[62] Case T-286/09, Intel v Commission, [2014] EU:T:2014:547 [108] and [150-166].
[63] Case C-413/14 P, *Intel v Commission*, [2017] EU:C:2017:632 [133-136]

the assessment of whether the competitors are as efficient, the Court required such a test to be carried out accurately while taking into consideration the rebuttals of the dominant firm.[64]

The As-Efficient-Competitor (AEC) test has often been questioned in later cases in terms of its application as it has been difficult to determine who an as-efficient competitor is in certain Article 102 TFEU cases where price and cost measures may not be the main determinant of efficiency as will be seen in cases such as *Google Shopping*.[65] The move to include the possibility of applying the AEC test to non-pricing abuses in 2023[66] is a significant step towards harmonizing the way abuse of dominance cases are assessed in the EU.

1.2.2 Current aim and scope of Article 102 TFEU

A recent case that helps to understand the scope of Article 102 TFEU is that of *Servizio Elettrico* where the CJEU responded to a preliminary reference by the Consiglio di Stato (Council of State, Italy) concerning the dominant electricity company, ENEL group's exclusionary conduct.[67] In the case, the CJEU was asked whether it was sufficient to prove that the competition structure in a market has been adversely affected or if it was also required that harm to consumer well-being ought to also be shown.[68]

The CJEU answered this by clarifying that a competition authority only needs to prove that the competition structure has been adversely affected but it may consider outweighing factors presented by the dominant undertaking such as advantages to consumers in terms of increase in choice, innovation and lowering of price.[69] It is also stated in the judgment that such adverse effects to competition must not be purely hypothetical in nature and must be backed by all relevant facts.[70]

The approach follows from the CJEU's *Intel* judgement (and subsequently the General Court's renvoi judgment)[71] where it stated that a dominant firm is not precluded from eliminating less

[64] ibid [141-145].
[65] See Case T-612/17, *Google Shopping* [514]; See also Germain Gaudin and Despoina Mantzari, 'Google Shopping and the As-Efficient-Competitor Test: Taking Stock and Looking Ahead', (2022) 13(2) Journal of European Competition Law & Practice, 125–135.
[66] See below *Unilever* case.
[67] Case C-377/20, *Servizio Elettrico Nazionale SpA and Others v Autorità Garante della Concorrenza e del Mercato and Others*, EU:C:2022:379.
[68] ibid [40].
[69] ibid [45-48].
[70] ibid [70-72].
[71] Case T-286/09 RENV, *Intel v Commission*, [2022] EU:T:2022:19. It was confirmed that a dominant firm can provide rebuttable economic evidence to an initial finding of abuse when concerning loyalty rebates.

efficient competitors from the market in situations concerning rebates and pricing practices.[72] This was also seen in the *Generics* case where the CJEU further opined that if there are efficiency gains being achieved through certain practices deemed to be abusive which may offset the exclusionary effect, it is upon the dominant undertaking to show that they have been or are likely to be achieved.[73] Going by *Intel* and subsequently *Servizio Elettrico*, it can be inferred that Article 102 TFEU case laws have consumer welfare included as one of the main goals which is sought to be achieved by having efficient undertakings conduct business as they will be able to offer consumers better products, cheaper prices, and innovation.[74]

1.2.3 Expansion of the AEC test- A look to the future application of Article 102 TFEU

The latest case relating to the application of the 'as efficient competitor' (AEC) test is that of *Unilever* where the CJEU answered the question in response to a preliminary reference brought by the Consiglio di Stato (Council of State, Italy),[75] that the test is not reserved exclusively for pricing practices alone.[76] The case pertained to exclusivity clauses imposed by the dominant undertaking, Unilever, to obtain supplies exclusively from them in return for commissions and rebates.[77]

The CJEU extended the AEC test established in the *Intel* case[78] to certain situations concerning non-pricing practices.[79] This may be done in situations where a hypothetical competitor with a similar cost structure may be eliminated from the market due to its inability to offer similar benefits like the one's offered by the dominant firm in return for imposing exclusivity clauses.[80] As a result of this, the competition authority is also bound to accept any rebuttable evidence produced by the dominant undertaking in the form of economic analyses in such cases.[81]

The inclusion of non-pricing-based abuses within the scope of the as-efficient competitor test is significant as the test was exclusively used for pricing related abuses till the *Unilever* case. This has broadened the test to all abuses within the scope of Article 102 TFEU which may also

[72] See *Intel* case [134-40].
[73] Case, C-307/18, *Generics (UK) Ltd and Others v Competition and Markets Authority*, EU:C:2020:52 [165-66].
[74] See *Intel* [134-40]; See also *Servizio Elettrico* [45-46].
[75] A legal-administrative consultative body established under Article 100 of the Italian Constitution.
[76] Case C-680/20, *Unilever Italia Mkt. Operations Srl v Autorità Garante della Concorrenza e del Mercato*, EU:C:2023:33 [59].
[77] ibid [6-7].
[78] See *Intel* case [139-40].
[79] See *Unilever* [56].
[80] ibid.
[81] ibid [56] and [60-62].

lead to a form of uniformity in the tests that are applied in assessing various abuses.[82] What is still to be seen is how the AEC test would be applied in practice to cases not concerning a price as CJEU's *Unilever* judgment is limited to the argument that the test may be optional in non-pricing cases.[83]

This may however find mention when the Commission releases its new guidance on Article 102 TFEU following on from its call for evidence.[84] The need for new guidance may be due to the fact that there are certain aspects relating to the assessment and application of Article 102 TFEU which may not be clear based on viewing past cases.[85] The need to modernise the Guidance Notice and Regulation 1/2003 in order to keep up with the changing digital environment was also reflected by Commissioner Vestager in 2022.[86] One of the aspects that will eventually need to be clarified is relating to the application of the AEC test in a uniform manner to non-price abuses. The Guidance can also be a means to address some of the past divergences in cases such as the difference in approach adopted in some cases post the previous 2009 Guidance Notice.[87]

Having commented on the scope and aims of Article 102 TFEU, these learnings will be used throughout the thesis to answer whether it is fit for purpose in digital market cases. The continuous expansion of the boundaries of Article 102 TFEU as reflected from some post-2019 cases indicates that it may be able to also effectively counter new types of conduct by dominant players in digital markets that may seem to be abusive. The chapter will now turn to some cases pertaining to digital markets to highlight the nature of cases that Articles 101 and 102, and the EUMR have had to deal with.

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[82] See Pablo Ibanez Colomo, 'As efficient competitors in Case T-612/17, Google Shopping: the principle and the conflations', (November 2021), Chillin'Competition,https://chillingcompetition.com/2021/11/19/as-efficient-competitors-in-case-t%E2%80%91612-17-google-shopping-the-principle-and-the-conflations/. He argues that the tests for different abuses would be different for purely arbitrary reasons.
[83] See *Unilever* [62].
[84] European Commission, 'Antitrust: Commission announces Guidelines on exclusionary abuses and amends Guidance on enforcement priorities', Press Release, 27 March 2023.
[85] Georgia Theodorakopoulou, 'From the as efficient competitor to the potentially as efficient competitor? A Reformulation doing justice to an effects-based approach', Conference Paper for the 18th ASCOLA Conference 2023; See also Pablo Ibanez Colomo, 'From Guidance to Guidelines: Article 102 TFEU and the new EU competition law', (27 march 2023), Chillin'Competition, https://chillingcompetition.com/2023/03/27/from-guidance-to-guidelines-article-102-tfeu-and-the-new-eu-competition-law/.
[86] See Vestager Speech 2022.
[87] See earlier for the conflict between form and effect-based approach in *Tomra* and *Intel.*

1.2.4 Competition law in digital markets: Limiting the scope of the thesis to Article 102 TFEU

Two dates that will be remembered as significant by competition lawyers, academics and policy makers in the EU and worldwide are 27 June 2017 and 10 November 2021. The former date is when the Commission fined Google (a dominant online search engine firm) 2.42 billion Euros for providing preference to its own shopping websites by demoting the rankings of competitors on its search engine platform.[88] The latter date is when the GC upheld the fine and recognised a new theory of harm which was specific to the nature of the online service provided by Google.[89] These decisions are significant because they introduced self-preferencing as a novel theory of harm into the competition law scholarship and expanded the prohibitive scope of Article 102 TFEU.[90] In some ways, this also led the way for other digital market abuse cases being decided by EU competition authorities and Courts. The *Google Shopping* Decision will be discussed in detail in Chapter 3 when unfair trading conditions imposed by dominant firms will be considered. It will also be considered in Chapter 2 when the unequal treatment principle will be considered.

Another important date for competition law scholars and practitioners is 7 February 2019. This is when the Bundeskartellamt prohibited Facebook (a dominant social media platform firm) from combining user data from its different subsidiary sources without explicit prior consent of the users.[91] The decision was significant as it was the first instance of a competition authority using violation of data protection rules to amount to an abuse of dominance under competition law. Such was the nature of the decision that it divided the two subsequent German Courts regarding the finding of an abuse.[92] The latest development in the case is the concurring Decision of the Court of Justice of the European Union (CJEU) in response to the case being referred to for a preliminary ruling by the Higher Court of Dusseldorf.[93]

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[88] European Commission- Press Release, Antitrust: Commission fines Google €2.42 billion for abusing dominance as search engine by giving illegal advantage to own comparison-shopping service, 27 June 2017.
[89] General Court of the European Union PRESS RELEASE No 197/21, 'The General Court largely dismisses Google's action against the decision of the Commission finding that Google abused its dominant position by favouring its own comparison-shopping service over competing comparison-shopping services', 10 November 2021.
[90] Elias Deutscher, 'Google shopping and the quest for a legal test for self-preferencing under Article 102 TFEU', (2022) 6(3) European Papers 1345, 1361.
[91] Bundeskartellamt Press Release, 'Bundeskartellamt prohibits Facebook from combining user data from different sources', (7 February 2019).
[92] This will be expanded in Chapter 3.
[93] Details of this will follow in Chapter 3; See Section 3.3.1.1.

These are just two significant examples out of many cases that have been initiated by a competition authority involving digital technology firms. There are other cases relating to abuse of dominance as well such as *Google/Android*,[94] *Microsoft v. Commission*,[95] which relate to tying of two technologies and refusal to provide interoperability information respectively. The significance of these cases is that they have forced competition authorities to consider novel theories of harm within the scope of abuse when Article 102 TFEU is concerned.

Some other examples involve decisions relating to mergers such as *Google-Fitbit*,[96] *Facebook-WhatsApp*,[97] *Apple-Shazam*,[98] *Microsoft-Skype*,[99] and *Amazon-MGM*,[100] to name a few where the issues that were raised while deciding on allowing the merger(s) were about lack of competition in the audio-visual content market, tying of digital technologies, and user data collection. User data collection has especially been a common theme when digital technologies and digital platforms have been concerned.[101] The most recent digital market Merger Decision in the EU is the *Microsoft/Activision* merger approval by the Commission which was a merger between the console owner, Microsoft and the video game company, Activision Blizzard.[102] There are important issues that are raised when mergers in digital markets are concerned such as the possibility of unilateral or coordinated effects post-merger which is a very important area to be studied further.

There are some cases that relate to anti-competitive agreements involving digital technology as well such as *Coty*,[103] and *Pierre Fabre*,[104] that dealt with restriction of sales online that paved the way for the *Guess* case which dealt with vertical restraints that led to the diversion of sales

[94] CASE AT.40099, *Google Android*; See also Case T-604/18, *Google and Alphabet v Commission* (Google Android).
[95] Case T-201/04, *Microsoft Corp. v Commission of the European Communities*, European Court Reports 2007 II-03601.
[96] European Commission- Press Release, Mergers: Commission clears acquisition of Fitbit by Google, subject to conditions, (17 December 2020).
[97] European Commission- Press Release, Mergers: Commission approves acquisition of WhatsApp by Facebook, (3 October 2014). Also, a subsequent fine relating to Facebook-WhatsApp; See also European Commission-Press Release, Mergers: Commission fines Facebook €110 million for providing misleading information about WhatsApp takeover, (18 May 2017).
[98] European Commission-Press Release, Mergers: Commission clears Apple's acquisition of Shazam, (6 September 2018).
[99] European Commission- Press Release, Mergers: Commission approves acquisition of Skype by Microsoft, (7 October 2011).
[100] European Commission- Press Release, Mergers: Commission approves acquisition of MGM by Amazon, (15 March 2022).
[101] See Google, Facebook and Apple Mergers (n 42-45). User data collection and data combination was the main theme in all three mergers.
[102] Case M.10646 – *MICROSOFT / ACTIVISION BLIZZARD*, COMMISSION DECISION of 15.5.2023.
[103] Case C-230/16, *Coty Germany*, 6 December 2017.
[104] Case C-439/09, *Pierre Fabre Dermo-Cosmétique SAS*, 13 October 2011.

towards certain websites and restricted competition.[105] Online vertical restraints are a new form of conduct that the Commission and other competition authorities have had to deal with.[106] Another form of conduct that can be anti-competitive is the formation of online hub and spoke cartels where horizontal competitors (spokes) are able to indirectly communicate with each other (through the hub) making it harder for competition agencies to detect communication among competitors.[107]

This limited list of cases provides insights into the diverse nature of cases and decisions that have arisen due to the creation of digital technologies. This list of cases also shows that there is a need to understand digital platform markets before applying competition law to such markets as they are different to most markets that have existed so far. The last lesson that this list of cases involving all substantive pillars of competition law show is the wide scope of cases within the area of digital markets. As stated in the introduction, this thesis will mainly deal with abuse of dominance in digital platform markets in order to limit the scope of the research. The thesis seeks to research the ways that firms in the digital era are able to affect modern markets with types of conduct that would not have been possible three decades earlier. Due to the wide scope of research pertaining to competition law in the digital era, the thesis has limited itself accordingly.

This chapter will explain the characteristics of digital platforms by referring to academic works and Reports released in the last decade on reform of competition law in digital markets.[108] While this chapter will provide a base overview of digital platforms, chapter two, three and four will expand on the descriptive content relating to the concerned areas. In 2021, a literature review of twenty-two existing reports was carried out by Lancieri and Sakowski which plays an assisting role in understanding the scope of several reports other than the four referred to in this chapter.[109] This chapter focuses on characteristics of digital platforms that are relevant to the subsequent chapters such as the concept two-sided markets, network effects, and the use of data. The aim of this chapter is to highlight the need to study the three substantive areas relating to pricing in Chapter 2, 3 and 4 and finding suitable remedies in Chapter 5. The scope of the

[105] Case AT.40428 – *GUESS*, COMMISSION DECISION of 17.12.2018.
[106] Ibid [53-56].
[107] OECD, 'Executive Summary of the roundtable on Hub-and-spoke arrangements in competition', 3-4 December 2019.
[108] See Introduction (n).
[109] Filippo Lancieri, and Patricia Sakowski, 'Competition in Digital Markets: A Review of Expert Reports', (2021), 26 Stan. J.L. Bus. & Fin. 65, 73. This Article also uses the Furman Report, Chicago Booth, and EU Digital Report as their backbone structure.

thesis is limited to Article 102 TFEU as some of the important aspects of discussion relating to digital market cases is to do with the market power and dominance of some digital platforms.

1.3 Digital Platforms: Characteristics and types

There are several types of digital platforms and while considering the assessment of conduct by such platforms using competition law, differentiating between them is an essential task that needs to be undertaken. Most platforms are characterized by having more than one side and are either two-sided or multi-sided in nature. Some platforms provide their services to one side of their users for no monetary price and subsidize them by charging users on the other side such as in the case of free newspaper agencies that provide their readers newspapers for free and charge the advertisers money to be able to pay for the newspaper.

Social media platforms use a similar business model where the users pay for using the service of the platform by sharing personal information regarding themselves which is then monetized by the platform firm.[110] Other platforms exist as intermediaries between different user groups like how a marketplace functions as the meeting point between customers and sellers. By considering the nature of three (Google, Facebook and Amazon) of the Big five Tech Giants or GAFAM/GAMAM, differences can be noted with respect to the business structure and construct of digital platforms.

One common theme between Google and Facebook in their way of conducting their business is that they both do not charge consumers a monetary price to use their service and instead monetize their services through advertising. CNBC, a leading business news provider, noted that Google accounts for 29 % share of the global online advertising market while Facebook (Meta) accounts for 24 % of online advertising globally.[111] This commonality regarding no monetary price being charged to consumers places Google and Facebook under the ambit of 'zero-price' platforms which will be studied in Chapter 3 of the thesis. One of the key characteristics of many online platforms such as Google and Facebook is their ability to connect different market sides.

[110] See ACCC Report (n 13) 41.
[111] Meghan Graham and Jennifer Elias, 'How Google's $150 billion advertising business works', (CNBC Tech, 18 May 2021), https://www.cnbc.com/2021/05/18/how-does-google-make-money-advertising-business-breakdown-.html.

1.3.1 Multi-sided platform markets and network effects

One of the most widely discussed topics in competition law currently is on how to use competition law in cases concerning two-sided and multi-sided markets.[112] There is extensive economic and legal literature on their characteristics and relation to competition that provides an understanding of how markets have changed leading to a move away from traditional methods of assessment that were used in one-sided markets.[113]

Two-sided markets can also be characterized as those in which a firm that acts as an intermediary, sells distinct products (for example, shoppers and shops get connected by shopping malls) to different groups and is able to connect the groups using indirect network effects that are created.[114] Two-sided markets are characterized by the chicken-and-egg problem which is that no one side can emerge without the other.[115] A platform firm will only be able to benefit to a limited extent by increasing the price in one side of the market as a fall in demand to that side will directly correlate to a fall in demand on the other side of the market since the value of the platform is reduced.[116]

The nature of some two-sided or multi-sided platforms are such that only one side of the platform has to usually pay for the service such as in the case of newspapers or social media websites where the advertisers usually pay while readers or users are provided a 'free' or non-monetary service. The value of the platform depends completely on the number of users on each side. An increase in the number of users on one side correlates directly to an increase in the number of users on the other side.[117] Some examples of two-sided platforms noted in Evans and Noel's paper that exist outside online markets are: newspapers and magazines that have a reader and advertiser side, operating systems that have an end user and application developer

[112] David Evans and Richard Schmalensee, 'The Antitrust Analysis of Multi-Sided Platform Businesses' (2013) National Bureau of Economic Research, Working Paper 18783.
[113] ibid; See also Jean-Charles Rochet & Jean Tirole, 'Two-Sided Markets: A Progress Report', (2006) 37(3) RAND Journal of Economics 645; See also Mark Armstrong, 'Competition in Two-Sided Markets', (2006) 37(3) RAND Journal of Economics 668, 668-91; See also E. Glen Weyl, 'A price theory of multi-sided platforms' (2010) 100(4) The American Economic Review 1642, 1642-1672.
[114] See Rochet and Tirole (n 124) 645-47.
[115] Bernard Caillaud and Bruno Jullien, 'Chicken & egg: competition among intermediation service providers', (2003) 34(2) RAND Journal of Economics 309, 309–328.
[116] David Evans and Michael Noel, 'Defining Antitrust market when firms operate Two-sided platforms' (2005) Columbia Business Law Review 127, 127-130.
[117] ibid 110-120.

side, video game consoles that have a player and game developer side, and payment cards that have the end user (cardholder) and merchant side.[118]

In a two-sided platform, the platform's most critical problem is to provide sufficient incentives for both sides as a fall in the number of users on either side will directly lead to the undoing of the platform's effectiveness.[119] This characteristic of one side of the platform being dependent on the pricing of the other makes balancing the incentives of both sides the most challenging aspect for a digital platform.[120] The balance is determined by the type of platform in terms of whether there is a transaction taking place in it or whether the two sides are unrelated to each other. It is therefore important to identify how a market functions and define it accordingly with respect to whether both sides of the market pay for each other's services or whether one side is cross subsidized by the other.[121] Network effects that are one of the main characteristics of two-sided platforms allow them to tip the market in the favour of a single dominant firm leading to interest and concern from competition lawyers.[122]

A paper by Petit and Auer found that there are varying understandings of what two-sided markets mean, but there is concurrence to the fact that indirect network externalities are an essential part of such markets.[123] They found that some of the variances in defining two-sided markets are mainly based on 3 major themes/differences- 1) If there exists an asymmetric pricing structure between the two sides as suggested by Rochet and Tirole,[124] 2) Evans and Schmalensee's view that there is requirement of a catalyst to conduct a transaction between the two groups that solve a coordination problem,[125] and 3) a wide definition suggested by Rysman is that any market characterized by a network externality served by an intermediary can be considered to be two-sided.[126]

Petit and Auer note that precision is important while defining two-sided markets if they are to be used in competition law application in the absence of which, errors may occur on the side

[118] ibid 125-127.
[119] See EU Digital Report (n 13) 43.
[120] Ling-Chieh Kung and Guan-Yu Zhong, 'The optimal pricing strategy for two-sided platform delivery in the sharing economy,' (2017) 1010 Transportation Research Part E: Logistics and Transportation Review 1-12.
[121] See 4.3 for more details on cross-subsidization in platform market.
[122] Marc Rysman, The Economics of Two-Sided Markets, (2009) 23(3) J. ECON. PERSPECTIVES, 125, 137.
[123] Nicholas Petit and Dirk Auer, 'Two-Sided Markets and the Challenge of Turning Economic Theory into Antitrust Policy', (2015) 60(4) Antitrust Bulletin.
[124] Jean-Charles Rochet and Jean Tirole, 'Platform Competition in Two-Sided Markets', (2003) 1(4) J. EUR. ECON. ASSOCIATION 990, 990-1029.
[125] See Evans and Schmalensee, (n 112) 7.
[126] See Rysman (n 112), 127.Interestingly, this Article has been cited 627 times by the time this thesis was submitted. This is noted to signify the general acceptance of the Article and the definition.

of under-enforcement or over-enforcement.[127] They use Rysman's definition to select their case studies as they contend that it is hard to meet the restrictive definition of the other two in real life examples.[128] Rysman's definition seems to be a suitable definition of two-sided markets that can be carried over the course of this thesis as the examples used would benefit from the wider definition of two-sided markets. This need to determine entities as two-sided or one-sided markets becomes important during the market definition and assessment of abuse stage when Article 102 TFEU is concerned. One of the characteristics that assist these types of firms to gain advantages is via network effects.

1.3.2 Network effects and First-mover advantage

Network effects refer to the increase in value of a service based on the number of users of the service.[129] The two-sided or multi-sided nature of some platforms help strengthen the network effects. Network effects can be of two types- 1) Direct network effects, and 2) Indirect network effects. Direct network effects are those that increase the value of a product with the increase in number of users of that product.[130] This can be seen in the case of social media platforms where an increase in number of users of that platform leads to an increase in its overall value since the platform's purpose is to connect people. Indirect network effects are dependent on different user groups that come under a particular platform. An example is of a video game console becoming more valuable as a result of new games being developed for that particular console.[131] Therefore, the indirect network effects are stronger in digital platforms that have different user groups such as in the case of online marketplaces or car-hailing platforms where the increase in number of consumers leads to an increase in number or suppliers (drivers or merchants). [132] A 'winner takes all' environment is created as a result of these network effects as the platform with more users would be preferred to one with fewer users. The market tips towards the platform with stronger network effects.

[127] See Petit and Auer, (n 64), 14-15.
[128] ibid 22. They do this in order to avoid under-inclusiveness of a sample study.
[129] See ACCC Report (n 15) 64.
[130] Matthew T. Clements, 'Direct and indirect network effects: are they equivalent?' (2004) 22(5) International Journal of Industrial Organization 633, 633-645.
[131] See Microsoft/Activision case for an example.
[132] See Furman Report (n 12) 34-35.

The first mover advantage also allows the firm to lock up users leaving making entry into the market extremely hard.[133] The first mover advantage plays a bigger role in the case of social media/network platforms where the use of the platform is dependent on the increasing number of users that choose to join the platform. It has also been noted that Amazon has benefitted from the First-mover advantage.[134] In the case of search engines, the first mover advantage provides brand recognition but the use of the platform itself is dependent on the quality of the results provided to users. This phenomenon is one of the reasons that has contributed to the current market dominance of GAMAM/GAFAM as there are benefits of being the first to a market which helps generate a user base.[135]

1.3.3 Zero-price

Some online platforms that engage in the business of attracting consumer attention to their platform's content also known as 'attention platforms' serve as matchmakers between the consumers and advertisers. The content of the platforms is developed in a manner that induces maximum consumer participation.[136] The opportunity cost for consumers is the time spent on the platform in return for the value obtained from seeing the content.

When there is no monetary price charged for usage of a platform, the cost is assumed to be paid by the consumers attention towards advertisements (as the online platform is dependent on advertising revenues).[137] Without adequate revenues from advertising, platforms have no incentive to make better content for consumers or act as an intermediary. The positive feedback effects between users and advertisers allow the platforms to act as the intermediary which provides the content to connect the two sets of users indirectly.[138]

In the case of Meta/Facebook, which dominates the social media market, the dominance is mainly due to the presence of strong indirect network effects which facilitates tipping. In this case, this refers to the increase in number of advertisers correlating to an increase in the number

[133] Evan Tarver, 'First Mover: What It Means, Examples, and First Mover Advantages' (Investopedia, 28 September 2020), https://www.investopedia.com/terms/f/firstmover.asp.
[134] See Lancieri and Sakowski,(n 50) 115-117.
[135] See EU Digital Report (n 11), 35.
[136] David S. Evans, 'Attention Platforms, the Value of Content, and Public Policy' (2019) 54 Rev Ind Organ 775, 775–792.
[137] John M Newman., 'Antitrust in Zero-Price Markets: Foundations' (2015) 164 University of Pennsylvania Law Review 149, 174-77.
[138] See Evans (2019) (n 76) 785-787.

of users creating a form of interdependence between advertisers and users. According to Evans, the more users that the firm is able to bring under its network, the more is the value of the firm to potential users. [139] This process continues until the firm becomes dominant and the network is strong enough for the firm to not worry about any competitors.

Meta/Facebook's ability to extract personal data from its users has been noted to have caused issues even to the extent of affecting the politics of countries like the US and the UK evidenced by the issues relating to Cambridge Analytica in the US elections.[140] There is no clear substitute to the platform and users would rather share more information than do away with using Facebook. This is also a result of Facebook's ownership of related social media platforms such as Instagram and Whatsapp.[141] In an experiment carried out to see individuals' willingness to pay to keep their personal profile on Facebook information instead of it hypothetically being deleted by the social media company, users ascertained values between 0 and 150 Euros. It was also found that the number of friends a user had made an impact on the amount of money they were willing to spend to keep their profiles intact.[142] Examples such as this one will be considered in Chapter 3 of the thesis when data collection as a breach of Article 102 TFEU will be further discussed.[143] This will warrant a discussion on the relevant DMA obligation as well.

Whether this strength is permanent cannot be ascertained as there is always the threat of an innovative disruptor, but the initial quality of the firm plays a vital role in making sure that enough users join the network. Varian notes that it is important to reach a critical mass of users for the firm to be successful and that online platforms invest heavily in the learning process and that their competitive advantage or monopoly position is a result of this investment rather than network effects.[144] He says so due to the fact that a user does not think of the presence or absence of other users to use the service of a platform and rather considers the quality of the

[139] ibid.
[140] Scott Detrow, 'What did Cambridge Analytica do during the 2016 election?' (NPR, 20 March 2018), https://www.npr.org/2018/03/20/595338116/what-did-cambridge-analytica-do-during-the-2016-election. This point is beyond the scope of this thesis but was necessary to be mentioned to show the impact of social media platforms.
[141] Mike Isaac, 'Zuckerberg Plans to Integrate WhatsApp, Instagram and Facebook Messenger', (New York Times, Technology, 25 Jan 2019), https://www.nytimes.com/2019/01/25/technology/facebook-instagram-whatsapp-messenger.html.
[142] Christine Bauer, Jana Korunovska and Sarah Spiekermann, 'On the value of Information- What Facebook users are willing to pay', (2012), ECIS 2012 Proceedings, Paper 197.
[143] See 3.2.
[144] Hal Varian, 'The use and abuse of network effects', SSRN, 17 September 2017, Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3215488.

service to decide whether or not to use it. While that view may be true for a search engine, it is less so for a social media website whose value is dependent on users joining the platform.

Zero prices have changed the focus from price to quality, data and consumer attention and such markets characterized by a zero-price would lead to competition on these alternative parameters between firms.[145] A zero-price may even be too high as consumers could be getting paid in return for their data as consumer data may be valuable in monetary terms for the platform. However, zero-price platforms do not appear to be competing vigorously on quality parameters.[146] Chapter 3 of the thesis will consider these suggestions in more detail by applying these arguments to some cases. While there has been extensive research on zero-price platforms over the last decade, the topic still warrants study due to the developments that have taken place in terms of new legislation and consideration of whether competition law ought to play a role at all in data related cases concerning dominant digital platforms.

1.3.4 Market power of digital platforms: The role of Data and impact on consumers

One of the important considerations in competition law is with regard to the size of digital platforms like Facebook and Google. The fascination with size in the case of platforms is mainly due to the quick pace with which they have been able to scale up and get control of their respective markets.[147] Google dominates the search market in Europe.[148] There is no close substitute (in the search engine market) available for it and even if any substitute does come up, individuals do not make the effort to try and switch to a different platform as Google provides a wider array of search options in addition to having its own subsidiaries in different sub-markets such as Google Maps (its mapping service), Youtube (video streaming), Gmail (online mail) and Google Photos(online photo storage database) to name a few which seem better to the consumer.[149]

One thing that is not up for debate is that Google is dominant in the search market due to its superior code and an unrivalled index which consisted of 500 to 600 billion websites in a 2020

[145] See EU Digital Report (n 11) 44-45; See also Chicago Booth Report (n 10) 55.
[146] See Furman Report (n 12) [1.129-30].
[147] ibid 34-35.
[148] See Furman Report (n 12) [1.61].
[149] Anca D Charita, 'Google's Anti-Competitive and Unfair Practices in Digital Leisure Markets' (2015) 11(1) The Competition Law Review 109-131.

New York Times piece.[150] While this is due to the superior quality of its search engine, the size of its index is due to the large number of users that rely on Google rather than an alternate search engine provider as a result of the market having tipped towards Google. One of the main issues that have become points of consideration in relation to platforms such as Google is the issue of contestability.[151] Google and Facebook have been dominant in their respective markets for over a decade and the level of dominance of these two firms is not comparable to previous market leaders in their respective markets.[152]

In some platform markets such as online travel agents (OTAs), when the firms attain a dominant position, they begin to impose restrictions or requirements that are anti-competitive such as MFN clauses which help them make sure that no other medium will offer a better price than their platform.[153] The European Commission has been active in trying to make platforms drop clauses that restrict the ability of firms to price freely as was in the case of the Amazon E-book case or hotel bookings. Price parity clauses have been discouraged by European countries and banned fully in France (Hotelier and travel agent agreements).[154]

1.3.5 Data collection

Data plays a major role in how markets tip in favour of certain online firms. The EU Digital report has provided significant input on understanding the different layers of data that digital platform firms deal with by analysing in depth the way in which dominant platform firms can use data (personal, non-personal, voluntary, aggregate or inferred) to their benefit.[155] Strong incumbent firms attempt to monopolise data and when this data is not available to entrants, the position of the incumbent firms grows stronger while the entrants find it harder to compete in the market.[156] From an Article 102 TFEU point of view, the main concern would be that data may seem to be an essential input without which competitors of the dominant incumbent would be unable to compete.

[150] Daisuke Wakabayashi, 'Google Dominates Thanks to an Unrivalled View of the Web', (New York Times: Technology, https://www.nytimes.com/2020/12/14/technology/how-google-dominates.html.
[151] See Furman Report, (n 12) [1.99-01].
[152] ibid, Paragraphs 1.102-03
[153] See EU Digital Report (n) 56. Note that MFNs and price parity clauses will not be focused in this thesis.
[154] See Furman Report (n 14) 48.
[155] See EU Digital Report (n 13) 24-31.
[156] ibid 49.

Data gathered from consumers is used to filter out those who would be interested in the products of a particular advertiser and they are presented with the related advertisements in the hope of it turning into a sale.[157] Targeted advertising takes place by the seller getting to know about what the consumer searches even when not present on that particular website. This is done by creating cookies on the user's computer. The cookies allow the seller to get to know the hobbies and likes of the user which helps improve the advertisements that the user is shown.[158]

A search engine like Google charges sellers on a per click or per impression basis. Online advertising has also led to decline of print advertising as online advertising provides the option to target users based on their preferences.[159] None of these may be directly problematic to consumers in the short run as they may seem to be getting what they want in terms of more personalized preferences and prices. However, the problem surfaces when the lack of suitable alternatives become a realization.

In a seminal paper on competition and data, Prufer and Schottmuller find that in data driven markets where tipping has already occurred, innovation incentives for the dominant firm and its competitors are small.[160] They show in a dynamic model of R&D competition that consumer information can lead to market tipping.[161] They argue that the success of a data driven firm like Google is because of the vast amount of data it has collected on users which allows it use the same information in different markets entrenching its dominance. The only way to prevent tipping of markets and to rectify the issue of data allowing a firm like Google to entrench its dominance is to mandate sharing of consumer data to increase competition and quality of search.[162] Such remedies will be the topic of discussion in Chapter 5 of the thesis.

The refusal to share data by dominant firms may also result in abuse of dominance. The EU Digital Report argues that there should be no duty to grant under Article 102 TFEU unless the need for access to data is necessary in accordance with the *Bronner* criteria where indispensability is considered one of the main criteria to invoke the essential facilities

[157] See Evans (n 136) 786-788.
[158] James D. Ratliff and Daniel L. Rubinfeld, 'Online Advertising: Defining Relevant Markets', (2010) 6 Journal of Competition Law and Economics 653.
[159] ibid, 658-665.
[160] Jens Prüfer and Christoph Schottmüller, 'Competing with Big Data', (2021) 69 Journal of Industrial Economics, 967, 967-1008.
[161] ibid, 992-994.
[162] ibid, 993.

doctrine.[163] If in a particular situation, data is so important to a firm's business with no clear substitutes available, then access to such data may be considered indispensable.[164] Categorisation of data is tougher than that of categorising patents as essential or non-essential which cannot be applied to data since distinctions need to be made between inferred and observed data.[165] As will be seen in Chapter 3 with post-2020 cases such as *Lithuanian Railways* and *Slovak* Telekom, EU Courts may be able to develop new theories of harm when it comes to cases involving the holder of essential facilities under Article 102 TFEU.

The access to Application Programming Interfaces (APIs) by firms affects competition. APIs are the techniques used by firms from an ecosystem in order to have access to data controlled by another firm of that ecosystem.[166] Due to the network and size of large firms, most new firms do not attempt to compete with large platforms but instead try to develop complements that larger firms may be interested in buying. This is not something that is exclusive to digital markets, but aspects such as data openness can help further the process of producing complementary services.[167] While this point is important, it will only be touched upon towards the end of the thesis in Chapter 5 while considering data portability as a suitable remedy.[168]

1.4 Aspects pertinent to competition law concerning digital markets

This section will consider certain aspects that have become important topics of discussion when competition in digital markets is concerned. 1.4.1 to 1.4.3 discusses the need to re-assess the way to define markets in platform market. 1.4.4 and 1.4.5 discusses whether regulation is the way ahead for digital markets due to the lack of contestability currently.

1.4.1 Market Definition in platforms: Use of SSNIP and SSNDQ

[163] Case C-7/97, *Oscar Bronner GmbH & Co. KG v Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co*. ECLI:EU:C:1998:569.
[164] See EU Digital Report (n 11), 101-102.
[165] ibid, 82.
[166] See EU Digital Report, (n 11), P. 31.
[167] See Furman Report, (n 12), [2.88].
[168] See Section 5.7 of Chapter 5.

Traditional competition law assessment requires markets to be defined in order to determine whether a firm has market power after which it is assessed whether that market power is abused. This narrowing down process can be done by considering the product and geographic specifications of where certain conduct takes place. The tool for engaging in this process is called market definition.[169] In most competition law jurisdictions including the EU and the US, market definition is an important task that needs to be carried out before determining whether a firm is in a dominant position.

The purpose of it is to see which firms face competitive constraints from the activities of a dominant firm. Substitutability mainly in terms of demand and to some extent also supply is considered the main source of defining a market.[170] The market is defined using a test called the Small but Significant Non-Transitory Increase in Price (SSNIP) test which consists of asking the question whether buyers would transition from a particular seller to different one selling a similar product owing to an increase in price and whether that would lead to unprofitable outcomes for the seller increasing the price in terms of consumers moving to other sellers. The substitute sellers would form the part of the market in such a case.[171]

This test is one that fits well for one-sided markets but may need adjustment or changes when it comes to two-sided markets. This is because the SSNIP test requires price to be reflective of the marginal cost of that product which is not possible when aspects such as cross-subsidization between different sides is concerned which may require consideration of prices on each side.[172] One other aspect that is important while judging cases related to pricing in multi-sided platform markets is to establish the different markets involved by way of clear market definition along with understanding the kind of transactions that the platform carries out. The SSNIP market definition test is not suitable in two-sided platform markets especially in those where the price offered to one side is zero.[173]

In November 2022, the Commission released a Draft Market Definition notice to take account of changes that have occurred since the previous Notice which was released in 1997.[174] The

[169] European Commission, 'Commission Notice on the definition of relevant market for the purposes of Community competition law' 97/C 372/03, [2].
[170] ibid [13-14]; See also Richard Whish and David Bailey, *Competition Law* (10th Edition, Oxford University Press, 2022) 25-40.
[171] ibid.
[172] Diane Coyle, 'Practical competition policy implications of digital platforms', Bennett Institute for Public Policy working paper no: 01/2018.
[173] See EU Digital Report (n 11) 44.
[174] European Commission, Commission Notice on the definition of the relevant market for the purposes of Union competition law (Draft Commission Notice), 08 November 2022.

Commission noted that undertakings may be competing on non-price parameters such as quality or levels of innovation and suggested the use of the small but significant non-transitory decrease in quality (SSNDQ) Test rather than the SSNIP test for such cases.[175] Notably, the approach was used in the Commission's *Google Android* Decision,[176] and later on was confirmed by the General Court.[177] A test such as the SSNDQ test which considers the change in quality of a service can also be hard to use as the measurement of quality of a platform's service is not precise for application to competition law.[178]

1.4.2 Defining two-sided or multi-sided markets

The 2022 Draft Notice includes discussion on other factors that may be relevant while defining markets when two or multi-sided platforms are involved.[179] The Commission noted that a single market or separate markets may be defined on a case-by-case basis depending on the substitution possibilities for the respective user groups on the different platform sides.[180] The Draft Notice also included that zero monetary price markets may be defined in themselves as separate markets as many multi-sided platforms offer their products at a zero monetary price.[181] The Commission also warns that regard must be had to markets where price discrimination may be prevalent as different consumer groups may be charged different prices (for example through price personalization or geographic price discrimination).[182]

The pricing structure of a two-sided market depends on the relationship between the two sides. Social media markets mostly charge only the advertiser sides while other transaction markets like auction houses or e-commerce web sites charge both sides differently.[183] Filistrucchi et al. recognize the need to consider whether there is a direct transaction between the two sides of the market as that determines the pricing structure of a market as one side may be subsidizing the other side. [184] Competition authorities could define the relevant market in two-sided markets by creating a distinction between markets where the two sides have a direct transaction taking

[175] ibid [32] and [98].
[176] Case AT.40099 *Google Android* [284-305].
[177] Case T-604/18, *Google and Alphabet v Commission*, EU:T:2022:54 [177] and [180].
[178] See EU Digital Report (n 11) 45.
[179] See Draft Commission Notice (n 174) [94-98].
[180] ibid [95].
[181] ibid [97].
[182] ibid [88].
[183] Lapo Filistrucchi, Damien Geradin, Eric van Damme and Pauline Affeldt, 'Market Definition in Two-Sided Markets: Theory and Practice' (2014) 10(2) Journal of Competition Law & Economics, 293, 293–339.
[184] ibid.

place and those markets where there is no direct transaction between the two sides.[185] Accordingly, competition authorities could decide on defining one market in the case of the former, while they can set out two separate markets in the case of the latter where there is no direct transaction between the two sides.

The important aspect is not to define one market or two markets but to distinguish between the two sets of users of a platform and delineate the markets accordingly. One example is of a reader market/ viewer market and an advertising market existing in the same the platform.[186] Using Filitrucchi et al.'s criteria, separate markets would be determined in that example as the sides do not have a direct transaction taking place between them even though they are interrelated to each other.[187]

1.4.3 SSNIP in two-sided markets: Ratio of prices approach

While applying tests like SSNIP which help in ascertaining the market power of a firm to two-sided platform firms, it is important to modify such tests so that the different sides of the platform are well accounted for. While the SSNIP test is an indication of the change in demand due to a change in the price,[188] when a platform firm is concerned, a change in demand may be a result of a change in the marginal cost or a change in the demand on the other side of the platform. The relationship between the two sides needs to be determined to implement such tests. Computing the ratio of the prices charged to the buyers and sellers to study the change in demand can be an efficient way of performing an SSNIP for a two-sided market where a transaction takes place.[189] For example, in a transaction market case such as that of payment cards, the transaction fee charged to both parties (irrespective of how much is charged to either party) can be computed by adding the sum of the fee charged to both and then using the average. In the case of a non-transaction platform like a social media website, the user side could be determined using the SSNDQ approach while the advertiser side could be determined using an SSNIP approach as advertisers are charged a sum of money to advertise.[190]

[185] ibid. They term these transaction and non-transaction markets.
[186] ibid 314-318.
[187] This is considered in Chapter 4 of the thesis. See 4.4.
[188] Alison Jones, Brenda Sufrin and Niamh Dunne, *EU Competition Law: Text, cases and materials* (7th edition, Oxford University Press 2021) 105-108.
[189] See Fillistrucci et al. (n 183) 330-335.
[190] See Draft Commission Notice [95].

Another important aspect to consider is that a fallacious indication of predatory pricing may be noted in two-sided markets if consideration is not given to both sides. In a hypothetical example of nightclubs where men and women are charged different prices assuming such a practice is legal, charging a low to zero price for women would lead one to assume that the price charged is below marginal cost while the price charged to men might be above cost. Viewing them separately would lead to a fallacious outcome when considering whether the prices are predatory as it does not account for the cost incurred on both sides.[191] Therefore, it is important to consider both sides of the market and to define them accurately. This point will be further carried forward in Chapter 4 of the thesis while considering cross-subsidization as a way of carrying out predatory pricing.[192]

While basing market definition on whether there is a transaction taking place between the two firms can be considered an optimal way of determining the number of separate markets that need to be defined,[193] alternate approaches may also be used to define markets such as looking at substitutability since in some cases the transaction between the parties on different market sides may not be very clear. Defining just one market in such cases would lead to grouping the platform firm in the same market as brick-and-mortar firms which may seem to lead to a narrow market being defined. A pre-defined criterion such as defining separate markets for each side of a platform,[194] or defining just one market for the whole platform,[195] are based on product substitutability.[196] Innovation is not accounted for when such a criteria is established due to the fact that a one-sided firm may be able to compete with a two-sided platform due to technological improvements or vice versa.[197] Looking at market definition on a case by case basis rather than a standardized approach would be the way forward as also noted in the 2022 Draft Notice.[198]

[191] Julian Wright, 'One-sided logic in two-sided markets' (2004) 3(1) Journal of Network Economics 1.
[192] See Section 4.4.
[193] Lapo Filistrucchi, 'A SSNIP Test for Two-Sided Markets: The Case of Media' NET Institute Working Paper No. 08-34.
[194] Michael L. Katz and Jonathan Sallet, 'Multisided Platforms and Antitrust Enforcement', (2018) 127 Yale L.J. 2142.
[195] See Filistruchi et al. (n 183).
[196] Vikas Kathuria, 'Platform competition and market definition in the US Amex case: lessons for economics and law' (2019) 15(2-3) European Competition Journal 254-280.
[197] Ibid.
[198] See Draft Commission Notice [97-98].

1.4.4 Consumer impact: Need for better regulation

According to the Furman Report which referred to the 'Comscore Media Metrix Multi-Platform'[199], which is the source of UK industry-standard online audience measurement, internet users spend majority of their time on sites owned by either Facebook or Google.[200] The ACCC found that more than 90 percent of Australian users use Google for their search queries on a daily basis and that more than 80 percent of the public use Facebook or one of its subsidiaries.[201] The market in which these two firms exist is known as the attention market as they try to attract the attention of the users. Consumers prefer to go for the default options and are usually loyal to their brands at the current point in digital markets.[202] Strong network effects in digital markets are a result of this consumer inertia which the firms take advantage of. The Chicago Booth report significantly highlights the use or rather misuse of consumer data by digital platforms to be the main reason why they reach the position of dominance that concerns competition law.[203] Consumers also do not go after better quality services but rather prefer more quantity which induces firms to provide lower quality services and continue to thrive due to the default choices of consumers.[204] This is a short run benefit for consumers as in the long run, the choices on offer are reduced due to the increasing market power of the incumbents.

The Chicago Booth Report explains how consumers have a façade of choice. By using default options such as boxes that are already ticked, a user must make the choice of actively opting out. Due to consumer inertia, the default option is the option that gets chosen often. Digital firms use this knowledge to set the default options in a manner that is beneficial to them.[205] A platform has the knowledge of a consumer's day to day activity and can use this to place advertisements based on the mood of the consumer or by using the consumer's pattern of spending money. By using targeted advertising, some social media platform firms induce consumers into buying products which they might not have wanted to buy but end up doing so due to the precision and timing of the advertisement along with aspects like the price being hidden till the final step in the buying process.[206] The precision is the result of the platforms

[199] comscore website, https://www.comscore.com/Products/Digital/Multi-Platform-Content-Measurement.
[200] Furman Report (n 12) 18.
[201] ACCC Report (n 13) 42.
[202] ibid 25-29.
[203] See Chicago Booth (n 10) 35.
[204] See Furman Report (n 12) 22.
[205] See Chicago Booth (n 10) 35-38.
[206] ibid 36.

ability to analyse the user's data in real time to determine the state of the user based on all the previous transactions and conduct of the user.

The default bias when it comes to choosing aspects like search engines plays an impactful role in digital markets due to consumer inertia. The ACCC recommends Google to give consumers the choice to choose the search engine in order to increase competition in the search and browser market and remove a major barrier to entry due to Google's dominance.[207] This issue can be also seen in the EU case of *Google Android* where Google tried to tie its search app and mobile browsing app to its Appstore while offering the same to mobile device manufacturers. Google attempted to get the manufacturers to pre-install its search and browser app which would have allowed them to benefit from the default bias of consumers leading to foreclosure of other competitors.[208]

In a survey by a private company of 2000 consumer in the US, it was seen that consumers widely (nearly 50 percent of them) believe that they have lost control of their own data.[209] In a survey carried out by a UK based cyber security information website, an even larger share of consumers believe that third party websites are sharing their information without their consent and that they have lost control of their data.[210] Grunes and Stucke explain how a dysfunctional equilibrium has been created due to consumer pessimism about data protection and that any new firms that come into the market will continue to undermine consumer data privacy as that is the norm. They also state that data driven firms can predict trends very accurately giving them a significant advantage in terms of ability to act and drive consumers.[211]

One important question that arises is whether the trend of lowering of privacy standards are adequately compensated through benefits being offered to consumers in terms of better services and personalized prices. Such a consideration would require balancing of the cost incurred by consumers (lowering of privacy standards) with the benefit received in terms of the personalized service. Competition on better privacy standards may be the way forward for

[207] See ACCC Report (n 13) 110.
[208] Case COMP/40099 Google Android.
[209] Consulting.us, Nearly half of consumers feel they've lost control of their data, finds Deloitte, (consulting.us, 16 October 2019), https://www.consulting.us/news/3089/nearly-half-of-consumers-feel-theyve-lost-control-of-their-data-finds-deloitte.
[210] Teiss, Culture & People, Press Release, 'We've all lost control of our personal data. Time to get it back', (Teiss, 01 Feb 2022), https://www.teiss.co.uk/culture--people/press-release-weve-all-lost-control-of-our-personal-data-time-to-get-it-back.
[211] Allen P. Grunes and Maurice E. Stucke, 'No Mistake About It: The Important Role of Antitrust in the Era of Big Data' (2015) University of Tennessee Legal Studies Research Paper No. 269, Available at SSRN: https://ssrn.com/abstract=2600051.

digital platform firms once markets are contestable. While Article 102 TFEU may have a limited role to play in such situations, role of separate regulation such as the DMA may play an important role in creating an environment where such competition may be possible.

1.4.5 Need for ex-ante regulatory assessment: Worldwide consensus

Moving from a purely ex-post analysis of behaviours concerning abuse of dominant power to an ex-ante approach where the outcome of certain types of conduct is predicted, may allow competition authorities to prevent certain types of conduct before a dominant platform is able to undertake them. Providing pre-set obligations would be the ideal way of preventing abusive digital platform firm behaviour by making sure that anti-competitive conduct is stopped before it actually takes place. This idea can be seen to have been implemented in Articles 5 and 6 of the DMA where twenty-three obligations relating to core platforms have been listed with scope for more to be included.

A Digital Market Unit (DMU) is proposed in the UK's Furman report which will be tasked with protecting and securing competition while providing beneficial outcomes to businesses and consumers.[212] This has led to the creation of the DMU within the CMA which is envisaged to promote competition in digital markets by preventing unfair practices by powerful digital firms.[213] The Chicago Booth Report proposes the introduction of a Digital Authority (DA) which may act as the body that regulates cases relating to digital competition and also passes relevant legislation required to deal with such cases.[214] The proposed bodies will be tasked to develop a forward-looking approach and try to prevent anticompetitive harm from occurring by establishing regulatory control over certain types of conduct.

There has largely been a consensus (in the US, UK, EU and Australia) on the need for a separate digital platform regulator to deal with cases concerning digital platforms worldwide.[215] These

[212] See Furman Report 54-55.
[213] UK Government (GOV.UK), 'A Digital Markets Unit (DMU) has been established within the CMA to begin work to operationalise the future pro-competition regime for digital markets', 7 April 2021, https://www.gov.uk/government/collections/digital-markets-unit.
[214] See Chicago Booth Report 83-84.
[215] See Furman Report (n 14) 54-55; See also Chicago Booth Report (n 11) 83-84; See also ACCC, 'ACCC calls for new competition and consumer laws for digital platforms' 11 November 2022, https://www.accc.gov.au/media-release/accc-calls-for-new-competition-and-consumer-laws-for-digital-platforms.

bodies such as the UK's DMU or the US' proposed DA will be empowered with investigating digital markets for competition law breaches. The DMU is set to have powers to designate digital platform firms that have strategic market status (SMS) under the Digital Markets, Competition and Consumers Bill.[216]

In the EU, this need to regulate certain types of conduct can also be seen in the DMA's purpose. The need for a legislation in the EU like the DMA resurfaced in October 2021 when a six-hour outage of Meta's services (including Facebook, WhatsApp and Instagram) showed that there are no substitutes that users could use and confirmed the dominance of existing social media platforms.[217] Commissioner Vestager stressed on the need to increase competition and reduce over reliance on just one firm with a need to increase choice in tech markets. She also stressed on the fact that the DMA would allow to move towards that aim.[218] Even if Google or Meta/Facebook do dominate their respective markets, the aim is not to take away their dominance through an act of legislation, but rather to make the markets where they function in more contestable which is not the case currently. However, there are some hurdles that need to be passed before the DMA can become an effective complement to competition law.

The provisions of the DMA will be considered in more detail in the following section. Descriptive analysis of the DMA's provisions is required as they will be used throughout the rest of the thesis. The use of the DMA alongside Article 102 TFEU is carried out in this thesis in order to understand whether they can be used in a complementary manner to tackle abusive conduct by dominant platform firms. Therefore, a clear understanding of the scope of the DMA is required in this chapter.

1.5 Introduction to the Digital Markets Act (DMA)[219]

In December 2020, the European Commission proposed a legislation to deal specifically with issues that arise within digital markets and are directed at large online platform firms. This Act

[216] UK Parliament, 'Digital Markets, Competition and Consumers Bill', Bill 350 2022-23 (as amended in Public Bill Committee), 12 July 2023.
[217] Meta Announcements, 'Update about the 4 October outage', 18 October 2021, https://www.facebook.com/business/news/update-about-the-october-4th-outage; See also Doug Madory, 'Facebook's historic outage, explained', Kentik, 05 October 202, https://www.kentik.com/blog/facebooks-historic-outage-explained/.
[218] CPI, 'EU's Vestager Says Major Facebook Outage Proves Need For Competition', (5 October 2021).
[219] See DMA Regulation.

was adopted in September 2022. Using this legislation, the European Commission seeks to ensure contestable and fair markets in the digital sector.[220]

The DMA is a legislation that seeks to deal with technological changes like other specific market related regulatory legislations that bind firms to act in accordance with certain ex ante rules. The DMA is different from competition law in that it does not require the pre-requisite of dominance to be proven prior to initiation of an action. The DMA applies to core platform services or gatekeepers and lists ten types of core platform services to whom the legislation may apply under Article 2(2) of the DMA.

It defines a gatekeeper as a firm that has significant impact on the market, provides a core service and enjoys an entrenched and durable position under Article 3(1) of the Act with a rebuttable presumption in Article 3(2) DMA which refers to certain requirements to be met to qualify as a core platform firm.[221] The Act leaves certain aspects open to future discussion and does not provide a closed definition to terms such as 'gatekeeper' as can be seen in Article 4(1) of the Act which provides the option to amend or reconsider the meaning of any of the provisions of Article 3. Under Article 3(8), the Commission is also entitled to designate a firm as a gatekeeper even if that firm does not meet the criteria set in Article 3(2) based on facts available. Article 3(8) allows the Commission to use their expertise in the designation process irrespective of whether the quantitative thresholds are met which may lead to issues on the lines of lack of certainty.

Articles 5 and 6 of the DMA are the operative parts of the Act and enlist twenty-three obligations for gatekeepers. Also included in the obligations are that gatekeepers must refrain from combining personal data without end user permission (Article 5(2)), refrain from treating the gatekeeper's own products more favourably (Article 6(5)) to name a few. They also include mandatory actions such as allowing users to un-install any software (Article 6(3)), applying fair and non-discriminatory terms for business (Article 6(12)), and providing effective data portability (Article 6(9)). Article 5(2) may be a result of the *Facebook Germany* case which will be discussed throughout chapter 3 of this thesis while Article 6(5) of the DMA is clearly a consequence of the *Google Shopping* case. The other obligations in Articles 5 and 6 of the DMA are also results of possible infringements that may seemed to have occurred but have not translated into competition law cases.

[220] See Recital [2].
[221] See Chapter 4 for the conditions to qualify under Article 3 DMA.

On initial reading, the provisions of the DMA may seem to cover every type of abuse that a large digital platform firm might engage in and has appropriate enforcement related provisions listed in Chapter 5 of the Act with a maximum fine of up to 10 percent of the preceding year's turnover under Article 30 of the DMA. The Commission is also empowered to carry out a market investigation under Chapter IV (Article 16 to 19) of the DMA for the purpose of designating a gatekeeper or following up on non-compliance. The DMA is mainly designed to increase competition in digital markets and to prevent over dependence on firms such as dependence on Google for online search and Meta/Facebook for social media.

1.5.1 DMA and Article 102 TFEU: Common ties

The DMA was established to ensure contestability in digital markets by laying down ex-ante rules for platforms that fall within the scope of the legislation.[222] It was also created keeping in mind that existing competition rules did not sufficiently address the problems that arose from the actions of large digital platforms.[223] It has been established in the DMA that it would act as a complement to Articles 101 and 102 of the TFEU.[224]

The DMA's objectives are stated to be complementary but also different to competition rules as the legal interest that is sought to be protected by this new legislation is to maintain market contestability rather than protecting undistorted competition which is the main focus of competition rules.[225] It is also stated in Article 1(6) of the DMA that it applies without prejudice to the application of existing competition rules. This means that the DMA is a distinct from existing competition rules but still acts as a complement to them. The application of the DMA without prejudice to existing rules may not be straightforward if there are instances of case duplication.[226]

However, the Commission and National Competition Authorities have been tasked to cooperate in a manner that NCAs support the Commission enforcing the legislation as the sole

[222] See DMA Regulation, recitals (5) and (7).
[223] ibid Recital (5).
[224] ibid Recital (10).
[225] ibid Recital (11).
[226] Konstantina Bania, 'Fitting the Digital Markets Act in the existing legal framework: the myth of the "without prejudice" clause' (2023) 19(1) European Competition Journal 116, 141-149. She argues that it is unclear whether competition rules and the DMA pursue different objectives.

enforcer of the DMA.[227] The support can be in the form of providing information to the Commission that NCAs possess such as non-compliance with the legislation by gatekeepers.[228] This is further mentioned in Articles 37 and 38 of the DMA. This follows from the legal basis of the DMA as it is established under Article 114 TFEU which seeks to harmonise EU rules. However, the ability for harmonization of the DMA and other competition rules has been questioned by Van Den Boom who argues that narrow interpretations of legal interests mentioned in the DMA may not facilitate harmonization of goals.[229]

Some of the DMA obligations mentioned in Articles 5 and 6 of the Regulation have been developed by considering past competition law cases.[230] In his examination of the DMA with competition law as a reference point, Bostoen found that negative obligations such as not combing personal data from third parties (Article 5(2)(a) DMA), not engaging in self-preferencing (Article 6(5) DMA), and not imposing narrow and wide MFNs (Article 5(3) DMA) have a basis in competition law while positive obligations such as providing end-user data portability (Article 6(9) DMA), allowing interoperability with hardware and software features (Article 6(7) DMA), and providing end business users access to self-generated data (Article 6(10) DMA) are far less supported by past competition cases.[231] One of the inferences is also that some of these cases that were previously investigated using Article 102 TFEU may in the future be investigated using the DMA.[232]

It is clear that the DMA is designed to be a tool that is different from competition law, but has some of its basis from past competition law cases. It is also unclear whether there is a clear separation between competition rules and the DMA when it comes to enforcement against core platform firms. There is a need for both areas to complement each other and make sure that the common objectives set out in Article 26 TFEU (common market objectives) are met. This provides the opportunity to develop the core platform obligations further based on digital

[227] See DMA Regulation, Recital (91).
[228] ibid Recitals (90)-(91).
[229] Jasper van den Boom, 'What does the Digital Markets Act harmonize? – exploring interactions between the DMA and national competition laws' 19(1) European Competition Journal 57, 57-85. He argues that interpreting DMA goals broadly will facilitate lesser divergences with other EU rules and also help with cooperation with national competition rules which are to complement the DMA.
[230] Friso Bostoen, 'Understanding the Digital Markets Act' 68(2) (2023) The Antitrust Bulletin 263, 263–306.
[231] ibid 281-286.
[232] Jan Blockx, 'The Expected Impact of the DMA on the Antitrust Enforcement of Unilateral Practices' (2023), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4341277.

market competition law cases. This will be further considered in chapter 4 of the thesis where a different rule concerning predatory pricing is suggested as a DMA obligation.

1.5.2 Hurdles that may prevent the DMA from being an effective complement to competition law

While the DMA and Article 102 TFEU can play a complementary role in the future, one of the primary issues in the drafting of the DMA is the separation of the obligations under Article 5 and Article 6 with no clear reasoning regarding why the former are easier to abide by as the Article 6 obligations are for gatekeepers who are susceptible of being further specified under Article 8 DMA.[233] The other major shift is a move to a per se regime from an effects-based one as the provisions in Article 5 of the DMA do not require evaluation of effects of practices that fall under the provision.[234] On the other hand, the Commission can under Article 16 of the DMA carry out a market investigation to designate a gatekeeper if it feels the need to do so. This also shows that the DMA is designed with the intention of removing discretion from the core platform firms.[235]

One issue with this move towards a per se regime and more objectivity is the lack of experience in dealing with cases related to gatekeepers and platforms. Petit argues that this clarity of purpose can be improved if unambiguous language is used clearly to delineate the purpose of the DMA as to whether it acts as a complement to EU competition rules with reference to past examples.[236] This helps with legal certainty which is an aspect that is fundamental to any area of law. It may take a few years after the coming into force of the DMA to fully understand its relationship with competition law. His argument is accurate in relation to ambiguity regarding the scope of joint application of competition rules and the DMA. However, as seen in Section 1.5.1, there exist common ties between both regimes which can be unearthed depending on how the goals are interpreted which will be further pursued in the thesis.

[233] Nicholas Petit, 'The Proposed Digital Markets Act (DMA): A Legal and Policy Review', (2021) 12(7) Journal of European Competition Law & Practice 529, 535-41.
[234] ibid 538.
[235] ibid 539-40.
[236] ibid 541.

A minimum turnover threshold is the main requirement to show a significant impact on the internal market under Article 3(2) of the Act, but the Commission is provided further powers to conduct market investigations or review the status of gatekeepers unlike that in competition law where it needs to be shown that a firm is dominant in relation to other firms in that market. Article 3(8) does not require the Commission to abide by the requirements set in Article 3(2) which leaves scope for arbitrary actions. In addition to that, the DMA is not a legislation that will be bound by competition law precedent.[237] Ibanez Colomo raises concerns regarding the substantial leeway provided to the Commission to qualify and redefine gatekeepers. This leads to lack of predictability and would constrain administrative action.[238] This leads to the inference that the use of the legislation would be based on speculation and a lack of certainty but at the same time, the legislation can be used to fulfil the purposes of fairness and ensuring contestability in the manner that it wants to. Arguably, the approach seems to be one where the Commission is intent on designating a platform as a gatekeeper by all means.[239]

1.5.3 Conflict of regimes

On making comparisons between the DMA and the EU Telecoms regime (it being another technology related industry which could inform the DMA), Ibanez Colomo found that the telecoms regime is based on the notion that competition is the most effective form of regulation.[240] In the Telecoms regime, direct regulation is considered secondary to effective competition as set out in the Electronic Communications Code.[241] In comparison, he notes that the DMA is not concerned with effective competition, but rather is mainly concerned with whether digital markets are fair and contestable.[242]

Even the assessment of significant market power under the EU Telecoms regime is found to be in line with the assessment in competition law as the test is based on the case of *Hoffman-La Roche*.[243] In addition to that the principle of proportionality is also required to be considered when providing obligations under the Electronic Communications Code like that in Article 7

[237] Pablo Ibáñez Colomo, 'The Draft Digital Markets Act: A Legal and Institutional Analysis' (2021) 12(7) Journal of European Competition Law & Practice 561, 561–75.
[238] ibid 572.
[239] Note that this does not contradict the view in Chapter 4 where the designation process is not questioned.
[240] ibid 569.
[241] Directive (EU) 2018/1972 of the European Parliament and the Council of 11 December 2018 establishing the European Electronic Communications Code OJ (2018) L 321/36.
[242] See Ibanez Colomo, 570.
[243] Case 85/76, *Hoffmann-La Roche & Co. AG v Commission*, EU:C:1979:36, [38].

of Regulation 1/2003 of competition law.[244] The principle of proportionality is also a General Principle of EU law under Article 5(3) TEU. This would lead to the inference that when the DMA is applied to cases relating to core platform firms, the principle of proportionality would have to be upheld.

One other hurdle that the Commission as the sole enforcer of the DMA will have to contend with is the problem of double jeopardy which prohibits duplication of proceedings.[245] In 2022, the CJEU has clarified regarding double jeopardy in *bpost* and *Nordzucker* that duplication of proceedings for the same facts cannot be justified by different National Authorities.[246] Ribera Martinez notices some concerns when it comes to enforcement of the DMA by the Commission and enforcement of competition law by National Competition Authorities (NCAs) which may bring forth issues relating to legitimacy of either regime.[247] This is a fair concern which can only be dealt with when the Commission and NCAs coordinate effectively as required under Article 38(1) of the DMA.

Lastly, the current design of the Act would not facilitate judicial review of legal concepts and define the scope of violations which is a requirement under Article 263 of the TFEU. The lack of meaningful limits to administrative action in the case of the DMA would make judicial review ineffective.[248] The drafting of the DMA can therefore be seen to be making a trade-off between legal and economic constrains and swift action in an evolving market. There are several hurdles that have been highlighted in this trade-off that might prevent the DMA from being an effective tool and may also lead to stifling of innovation. However, the substantial leeway provided to the Commission to designate gatekeepers, add obligations and carry out market investigations under the DMA can only seem to be helpful in making markets more contestable.

1.5.4 Does the DMA help with innovation?

[244] See Ibanez Colomo 570-571.
[245] Charter of Fundamental Rights of the European Union, 2012/C 326/02, Article 50.
[246] Case C-117/20, *bpost SA v Autorité belge de la concurrence* EU:C:2022:202; Case C-151/20 *Bundeswettbewerbsbehörde v Nordzucker AG and Others* EU:C:2022:203.
[247] Alba Ribera Martinez, 'An inverse analysis of the digital markets act: applying the Ne bis in idem principle to enforcement' (2023) 19(1) European Competition Journal, 86-115.
[248] See Ibanez Colomo (n 237) 573.

Concentration of power into the hands of one firm or a few firms leads to stifling of innovation in some cases. An example of this was noted by Argenton and Prufer in the case of online search.[249] Increase in competition also leads to increase in innovation as each firm tries to better the other by coming up with innovative methods. In the Commission's Impact Assessment Report on the DMA, it is argued that the measures in the DMA will allow competition to flourish as they attempt to limit the abuse of power by dominant platforms and gatekeepers.[250] In the Report, it is noted that financial resources available with large platforms that could be used for R & D and innovation are used to acquire smaller companies leading to a lack of progress in innovation.[251] However, the idea that smaller firms will be able to compete with gatekeepers due to the DMA rules is currently speculative but the intent of the DMA is to sustain innovation.[252] Some of the measures of the DMA could prevent firms from attempting to innovate as they may be deemed core platforms and be subjected to stricter rules. On the other hand, the DMA can also be seen to encourage rivals to come up with innovative means to compete with gatekeepers which might not have happened prior to the coming into force of DMA.[253]

Perhaps, an error cost test could be carried out in dealing with future infringements relating to gatekeepers by assessing whether innovation would be stifled due to an enforcement action being undertaken. This is similar to considering objective justifications in Article 102 TFEU cases.[254] In Chapter 4 of the thesis, a new obligation for the DMA is suggested with the possibility of providing an objective justification in order to make sure that all benefits of a certain conduct can also be accounted.

1.5.5 Section summary

Under Article 18(1) of the DMA, the Commission can apply behavioural or structural remedies on a gatekeeper that systematically infringes the obligations laid out in Article 5 and 6 of the Act like the powers of the Commission under Article 7 of Reg. 1/2003.[255] As is the case with

[249] See Argenton and Prufer (n 655).
[250] European Commission, 'Impact Assessment Report of the Commission Services on the Proposal for a Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector' (Digital Markets Act), SWD(2020) 363 [279-286].
[251] ibid [279].
[252] Pierre Larouche and Alexandre de Streel, 'Will the Digital Markets Act kill innovation?', (2021) CPI Columns, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3855505.
[253] ibid.
[254] See Section 4.4 for an example.
[255] Reg. 1/2003 will be discussed further in Chapter 5 of the thesis.

Reg. 1/2003, the DMA also allows the Commission to only apply a structural remedy when no equally effective behavioural remedy is suitable. Behavioural remedies are considered the ones that should be resorted to primarily which maintains the status quo. The DMA has the opportunity to allow for equally efficient structural remedies to be imposed which may deter future infringements.

The section concludes that the main concern relating to the DMA is regarding over enforcement due to the wide powers provided to the Commission. On the other hand, the DMA is a legislation that has been developed after considering the limitations in applying competition law remedies to digital market cases where the remedies have not seemed to bring the infringement to an end such as in *Google Shopping*.[256] The enforcement and remedy process in the DMA is an important aspect to be discussed to see how the legislation may be used compared to those available in competition law.

While there are several hurdles that may hinder the application of competition law and the DMA, it is important to find ways to prevent such hindrance in order to try to achieve the dual goal of making markets contestable as envisaged in the DMA which can be complemented by ensuring effective competition in digital markets as envisaged in Article 101 and 102 TFEU.

1.6 Conclusion and the way forward for the rest of the thesis

Personalized prices are a concern for competition policy as they may have exploitative outcomes for some consumers who pay higher prices.[257] There may be benefits in terms of more consumers being able to access a product but exploiting consumer vulnerabilities may be a harmful effect and also when all consumer surplus gets taken away from consumers.[258] This prompted the writing of Chapter 2 of this thesis to study the varying outcomes from personalized pricing. The assessment of this phenomenon under competition law may be a nascent area but it is important to be considered as there is evidence of its occurrence.[259]

The issues relating to zero-price platforms discussed in 1.3.2 will be the basis for Chapter 3 of the thesis. This issue has been considered in most of the Reports and is an important point of

[256] Section 5.4.2 in Chapter 5 will consider the pros and cons of self-preferencing and consider whether a remedy is required in the first place along with what remedy would be most suitable.
[257] See Furman Report (n 12) [3.26].
[258] ibid [3.164-66].
[259] See Section 2.2.

discussion which especially considering the case of *Facebook* in Germany. The use of competition law in cases concerning data collection by 'free' online platforms has also led to the insertion of an obligation in the Article 5.2 of the DMA.

The issue of predatory pricing has scarcely been considered in any of the major Reports considered in this chapter. It is only considered briefly in the Chicago Booth Report which suggests the modification of the current test to assess predatory pricing considering the low marginal costs of online platforms.[260] The EU Digital Report and the Furman Report merely mention that it is may be unclear on whether a price may be construed as competitive or predatory in digital markets.[261] This prompted the writing of chapter 4 of the thesis to assess whether in two-sided online markets characterized by cross-subsidization, the current test (*AKZO* presumption) may still be effective. Chapter 4 suggests a test for Article 102 TFEU for digital platform firms and also one simultaneously for the DMA based on similar qualifications.

This chapter has so far provided a basis for the rest of the thesis by analysing the goals of Article 102 TFEU and seeing how they fit in within the digital era. The chapter explained characteristics pertinent to digital platforms between sections 1.3 and 1.4 and followed it with a detailed introduction to a separate regulatory regime for digital platforms, the DMA. The rest of the thesis will seek to pick up on certain abuses that have traditionally been assessed using Article 102 TFEU, namely price discrimination (personalization), excessive pricing and unfair trading conditions, and predatory pricing. The final chapter of the thesis will pick up on the remedies that can be imposed in response to certain types of conduct through Article 102 TFEU or the DMA.

This chapter sets the scene for the rest of the thesis in having noted the importance of considering pricing abuses in digital markets and noted some characteristics of digital platforms that will be referred to over the rest of the thesis. The chapter sets the burden on the rest of the thesis to show the importance of analyzing the substantive topics covered within them and find out the best way of assessing them. The question asked is also whether Article 102 TFEU may be the right tool to be used in price personalization, data collection, and predatory pricing cases involving digital platforms. What now follow are the more substantive chapters of this thesis.

[260] See Chicago Booth Report (n 10) 97.
[261] See EU Digital Report (n 11) 32; See also Furman Report (n 12) [3.27].

CHAPTER 2: Law and economics of price personalization: Relevance of secondary-line injury cases under Article 102(c) TFEU

2.1 Introduction

With the advancement in digital technologies, firms have found it possible to obtain information on consumer preferences which can be used towards individualizing or personalizing prices for consumers based on their willingness to pay. In Chapter 1, it was noted that enhancing consumer welfare is one of the goals of competition law and as a result one of the goals of Article 102 TFEU.[262] Individualizing prices through price discrimination can have varying effects on consumer welfare but usually has a positive effect on total welfare as the consumer base increases.[263] Consumer welfare is determined by subtracting what a consumer is willing to pay from what they actually pay while total welfare refers to the change in overall output (consumer welfare + producer welfare).

However, even though there may be a rise in total welfare, a situation that may give rise to concern is when this practice resembles 'first-degree price discrimination' or 'perfect price discrimination' which is considered to be a practice that allows a firm to capture all the consumer surplus leading to a decrease in consumer welfare (rent transfer effect).[264] The worst-case scenario relating to price personalization is one where a monopolist seller price discriminates precisely between consumers and chooses to sell to only consumers that have a high willingness to pay and excludes those with a lower willingness to pay, or charges them a price higher than their willingness to pay closer to equilibrium price (misallocation effect).[265] This is the situation which prompted the writing of the current chapter.

The legality of a practice such as price personalization is a balancing act of the costs incurred such as lower privacy standards, discrimination on certain grounds between consumers, rent transfer effect, misallocation effect, with benefits of the practice such as an increase in total output (output expansion effect).[266] Price discrimination and price personalization are closely

[262] See Iacovides and Stylianou (n 44).
[263] Mark Armstrong, 'Price discrimination' (2006) MPRA Paper, University Library of Munich, Germany, 6.
[264] ibid 7-8.
[265] ibid.
[266] ibid 10-12.

associated concepts as the notions of fairness, welfare and trust that are associated with price discrimination, also play a role in price personalization.

The usage of competition law (Article 102 TFEU) to cases of end consumer price discrimination has been a debatable topic much before the emergence of digital platform firms.[267] The aim of this chapter is to highlight such considerations that have been made previously relating to price discrimination and assess whether and how they apply to price personalization. The chapter draws on the work of Townley et al.,[268] who have provided a comprehensive overview of the economics and legality of price personalization, and extends the discussion by arguing that price personalization should only be prohibited using when there is a misallocation effect occurring along with calling for a more transparent approach to the practice in order to maintain consumer trust. The chapter includes the Omnibus Directive's suggested amendment in relation to notifying consumers regarding price personalization.

To this end, the chapter will discuss the effects of personalized pricing on consumers and assess whether it is beneficial to consumers through its redistributive effects or whether it requires to be regulated through legislation such as data protection or consumer protection or be dealt with by competition law enforcement under Article 102 TFEU when it concerns dominant online firms.[269] Prior to discussing its effects, the chapter will consider evidence of its occurrence which is limited in today's day and age, and provide a conceptual understanding of the different terms that are associated with price personalization. It is to be noted that the focus of this chapter is restricted to 'price' personalization alone rather than related but important aspects such as product personalization or other marketing strategies which have been considered in past research works.[270] The conclusions of the chapter are focused on price personalization actions by dominant firms.[271]

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[267] Pinar Akman, 'To Abuse, or not to Abuse: Discrimination between Consumers', (2007) 32 European Law Review 492.

[268] Christopher Townley, Eric Morrison and Karen Yeung, 'Big Data and Personalised Price Discrimination in EU Competition Law', King's College London Law School, Research Paper No. 2017-38. The empirical evidence of its occurrence is not considered in their paper which it is in this chapter.

[269] Inge Graef, 'Algorithms and fairness: What role for competition law in targeting price discrimination towards end consumers', (2018) 24(3) Columbia Journal of European Law, 540. She argues that personalized pricing may not fit into the scope of Article 102 TFEU cases.

[270] Alan L. Montgomery and Michael D. Smith, 'Prospect for Personalization on the Internet', (2009) 23 Journal of Interactive Marketing 130.

[271] Dominance in EU law can be presumed when a firm has at least 50 % market share as decided in Case C-62/86 *AKZO v Commission* [1991] ECR I-3359. In some cases, such as Case 27/76 *United Brands v Commission* [1978] 1 CMLR 429, and C-95/04 *British Airways v. Commission*, dominance was found even though the firm had less than 50 % market share based on additional factors.

The chapter contributes to the current literature on the application of competition law and other legislation(s) to personalized pricing cases by considering the concepts such as trust, fairness, and efficiency and their relation to how personalized pricing is perceived and what its effects on welfare are. The chapter also discusses the role that fairness and consumer perceptions play while assessing whether personalized pricing enhances or reduces welfare and tries to assess whether competition law (mainly Article 102(c) but also Article 102(a)) is the right tool to be used in personalized pricing cases.

The chapter is divided into seven sections with six further sections along with this introduction. Section two will provide definitions to the terms price discrimination and price personalization and provide a conceptual basis for further discussion in Sections three to seven. Section three will consider past evidence that help in understanding the level of occurrence of price personalization currently. Section four will consider the role of Article 102(c) TFEU in price personalization cases by considering primary-line and secondary-line injury cases. This section contributes to the current literature by providing this new analysis to price personalization. Section five will extend the contribution of this chapter by considering several norms regarding price and price personalization such as trust, fairness and efficiency which help to understand how these norms may have motivated the law on price discrimination. Section six considers the use of other legislation to deal with price personalization as some limitations will have been noticed in using Article 102(c) TFEU alone in section five. Section seven will conclude.

2.2 Conceptual understanding of price personalization and price discrimination

2.2.1 Price personalization

Before beginning on a qualitative assessment of the practice, it is essential to provide a base definition. Personalized pricing or price personalization (used interchangeably in this chapter) is the practice of setting different prices for identical products to individuals based on information collected on them. The OECD defines it as '*any practice of price discriminating*

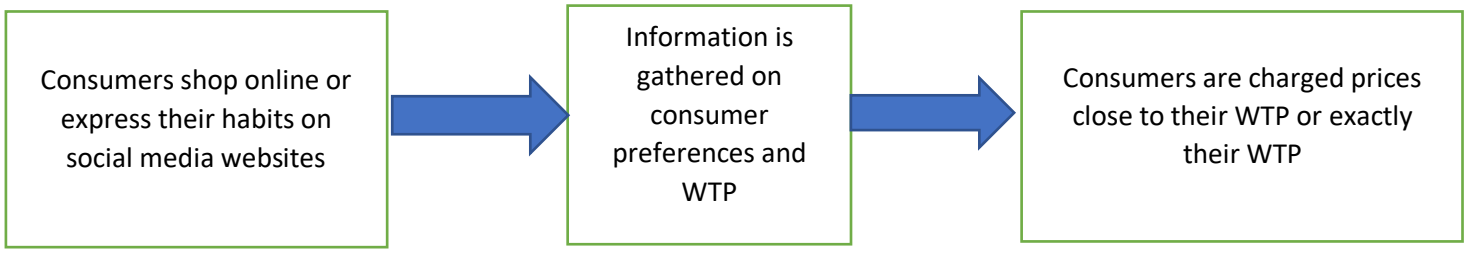
final consumers based on their personal characteristics and conduct, resulting in prices being set as an increasing function of consumers' willingness to pay.[272]

A narrower definition is provided by the Office of Fair Trading and its successor, the Competition and Markets Authority (CMA) of the UK who define it as '*as the practice where businesses may use information that is observed, volunteered, inferred, or collected about individuals' conduct or characteristics, to set different prices to different consumers (whether on an individual or group basis), based on what the business thinks they are willing to pay*'.[273]

The second definition limits the focus to practices that involve prices being marketed on the basis of consumer data while the first definition has a much wider scope. The CMA's definition is the one that will be considered in the rest of the chapter owing to its precision. Price personalization that involves perfect price discrimination between end users is termed online behavioural discrimination by some.[274] It will be considered whether this is a possibility in today's age with the available tools and data for firms.

Botta and Wiedemann describe personalized pricing in online markets to be the practice of using information gathered from users to profile them and discriminate based on preferences.[275] Price discrimination is used by firms to capture consumer surplus as the firm is able to maximise its profits by segregating consumers who would be willing to pay more vis-à-vis those who would be willing to pay less and charge them accordingly. In this manner, the consumers that weren't willing to pay the previous price benefit from price discrimination.

The collection and usage of consumer information to engage in price discrimination is depicted in Figure 1 below-



[272] OECD, 'Personalised Pricing in the Digital Era', Background Note by the Secretariat, Organisation for Economic Co-operation and Development (OECD), DAF/COMP (2018)13, (28 November 2018) 9.
[273] CMA, 'Pricing algorithms Economic working paper on the use of algorithms to facilitate collusion and personalised pricing', (October 2018), 37.
[274] Ariel Ezrachi and Maurice Stucke, 'The rise of behavioural discrimination', (2016) 37(12) E.C.L.R. 485, 485-492.
[275] Marco Botta and Klaus Wiedemann, 'To discriminate or not to discriminate? Personalised pricing in online markets as exploitative abuse of dominance', (2020) 50(3) European Journal of Law and Economics 404.

Figure 1: Data collection leading to personalization

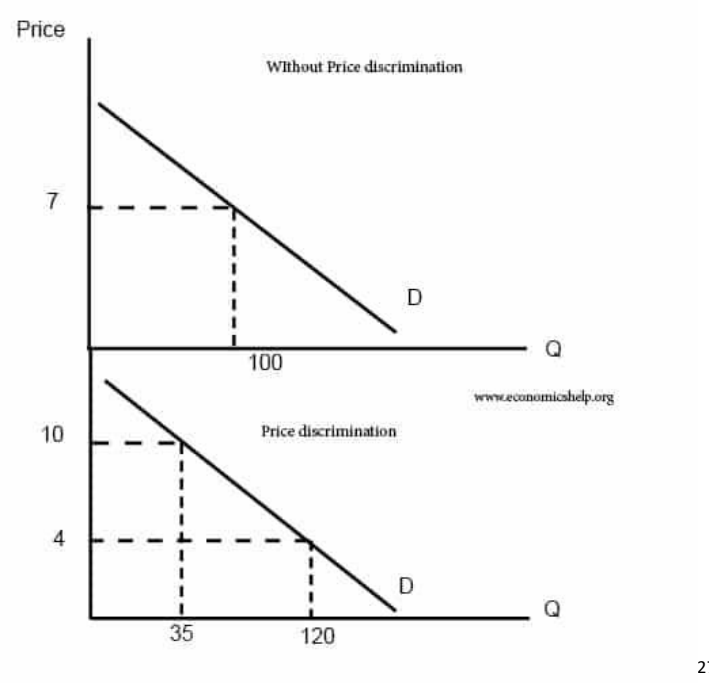
It is important to consider whether there is evidence of occurrence of price personalization. This will be considered after defining the term price discrimination and describing the forms of price discrimination. The term price discrimination has also had considerable differences in its definition.

2.2.2 Price Discrimination

Price discrimination is practiced by firms as a marketing strategy to increase the number of consumers that they are able to sell to.[276] An accepted definition of price discrimination is that it refers to the practice of charging different prices for two identical products which have the same marginal cost.[277] Therefore, price discrimination can be said to occur when a firm has the same cost to supply goods to consumers but charges them different prices. It also needs to be noted that price discrimination can be said to occur when a firm has different costs to supply different consumers but charges them a uniform price which results in a varying price to marginal cost ratio.[278]

The figure below (Figure 2) illustrates a simple form of price discrimination where the first figure shows a uniform or constant price, while the second reflects a situation where the firm price discriminates. In the first graph, the firm charges 7 currency uniformly and sells 100 units netting a total revenue of 700 currency. In the bottom graph, the firm price discriminates and sells 35 units at 10 currency and 120 units at 4 currency netting a total revenue of 830 currency.

[276] Hal R. Varian, 'Price Discrimination', (1989) 1 Handbook of Industrial Organization, 597, 654.
[277] Mark Armstrong and John Vickers, 'Competitive Price Discrimination' (2001) 32(4) The RAND Journal of Economics, 579, 581.
[278] Massimo Motta, *Competition Policy: Theory and Practice*, (Cambridge University Press, 2004) 491.



[279]

Figure 2: Price Discrimination illustration

Price discrimination is a practice that can be carried out by both a dominant as well as non-dominant firm. However, Varian notes that there are three conditions that are necessary for successful price discrimination. They are- 1) The firm must have some market power or influence over the market,[280] 2) the firm must have the ability to discriminate between consumers, and 3) the firm must be able to prevent arbitrage.[281] While the second and third conditions are widely accepted as requirements for successful price discrimination, the requirement of the first condition for successful price discrimination is debatable.[282]

Based on real-world examples, price discrimination can be classified on the basis of three degrees-[283]

First-degree price discrimination refers to perfect price discrimination where the firm knows exactly what price each consumer would be willing to pay and charges them accordingly. This requires perfect knowledge of the consumers' preferences. Second-degree price discrimination occurs when a firm offers self-selecting options to consumers such as quantity discounts. Third-degree price discrimination occurs when firms offer different prices to different consumer

[279] Tejvan Pettinger, 'Price Discrimination', (Economics Help, July 2019) https://www.economicshelp.org/microessays/pd/price-discrimination/.
[280] Varian notes that a certain amount of market power is required to be able to sort out consumers.
[281] See Varian (n 276) 598-599.
[282] See Motta (n 278) 492.
[283] See Varian (n 276) 600. These classifications are due to Pigou's Seminal work in 1920.

groups which are segmented through identifiable characteristics of consumers such as old age discounts or student discounts.[284]

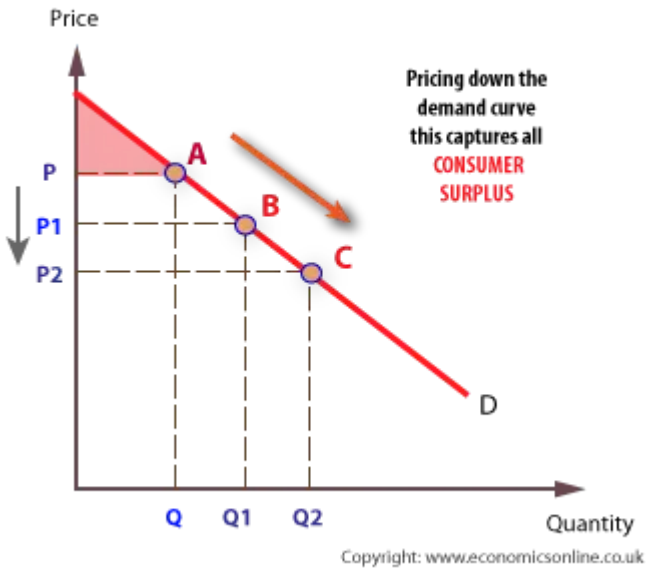
Some forms of price discrimination are accepted even though all consumers may be aware of such discrimination taking place such as temporal pricing or category-based pricing. Grouping of consumers into different categories and offering a price based on each category for identifiable products such as old age or student discounts are grouped under third-degree price discrimination,[285] while offering self-select options such as discounted last-minute flight tickets or train tickets where the price charged is dependent on the number of units bought or the time the product is bought, comes under second-degree price discrimination. Barring arbitrage, both of these forms can have output expanding effects as more consumers are able to afford the price discriminated product or service.

One aspect to note is that second-degree price discrimination may involve individual differences of preference in consumers which gets reflected in them choosing a price that they would be willing to pay. For example, consumers may choose hotel rooms on a hotel room booking website based on whether they offer last day refunds. This decision would be mainly influenced by the consumer's choice of wanting to incur a cost for to insure their booking and planning ahead for any eventuality. Another consumer who is less concerned about not being able to access the hotel may not incur the extra cost for last day refunds. A similar example is of publishers selling hard cover books at a higher price to extract more revenue from consumers who are willing to purchase a book on its release compared to consumers who are willing to wait for the soft cover books so that they can buy them at a lower price.[286] However, in both these examples, the consumer that pays more is able to achieve a product that is slightly different than the one obtained by the one paying a lower price. Due to this, it can be considered that there is a difference in the product characteristic as well in second-degree price discrimination examples.

First-degree or perfect price discrimination consists of instances where consumers are charged up to the maximum price that they may be willing to pay based on precise and accurate information available to the seller regarding their WTP.[287] In case perfect price discrimination is possible, a dominant firm or a monopolist would be able to transfer all the surplus from the

[284] See Motta (n 278) 491-493.
[285] See Armstrong (n 263) 1-4.
[286] Gunnar Niels, Helen Jenkins, and James Kavanagh, *Economics for Competition Lawyers* (2nd Edition, Oxford University Publications, 2016) 183 [4.87].
[287] See Varian (n 276) 600-602.

consumers to itself while this is not the case in second and third-degree price discrimination where consumers tend to keep some of the surplus. A graphical representation of perfect price discrimination is presented below-



[288]

Figure 3- Perfect Price Discrimination: Note that the triangle P1AB will be dead-weight loss (lost surplus)

First-Degree Price discrimination can have ambiguous effects on welfare depending on each case and depending on the welfare measure adopted. If the welfare measure adopted is total welfare, then the result will be an overall increase in total welfare as a result of an increase in output which is the fundamental characteristic of total welfare. If the measure of welfare chosen is consumer welfare, the process carried out to calculate the change in consumer welfare as a consequence of perfect price discrimination instead of a uniform price would be far more tedious as each consumer's welfare increase or decrease needs to be included individually and computed together to assess the change. This chapter will highlight the importance of welfare measures while considering the use of competition law and other legislations in price personalization cases in order to ascertain whether to initiate a case under Article 102 TFEU.

[288] Economics Online, Price Discrimination, 20 January 2020, https://www.economicsonline.co.uk/business_economics/price_discrimination.html/.

The primary concern with regard to first-degree price discrimination being practiced by a monopolist is that the rent transfer effect and misallocation effect would be greater than the output expansion effect.

Primarily, it is important to consider whether this is a practice that currently is seen to occur widely or if these considerations are forward looking for future cases which might undermine the importance of the study. Therefore, the following section will consider the evidence of price personalization.

2.3 Occurrence of price personalization: A literature review of price personalization

There has been some criticism of the practice based on different reasons. Some suggest that price personalization may lead to a reduction of consumer and total welfare,[289] some others find the practice to involve discrimination on certain grounds that may not be acceptable to society,[290] while others suggest that online platforms are able to misinform consumers regarding the value of certain products which leads to misperception regarding surplus.[291]

There are on the other hand clear benefits that arise from price personalization. The most obvious one out of those is regarding the ability of new consumers being able to access previously inaccessible products. [292] The benefit of price personalization with the possibility of redistribution of wealth from the wealthy to the poor customers leads to allocative efficiency and increases social welfare as unequal prices are charged to unequal players. [293] Some have showed that price discrimination can intensify competition in scenarios where there is no firm-

[289] See Topi Miettenen and Rune Stenbacka, 'Personalized pricing versus history-based pricing: Implications for privacy policy' (2015) Information Economics and Policy 33 DOI: 10.1016/j.infoecopol.2015.10.003, who use a two-period model and find a reduction to consumer and total welfare; See also Ramsi Woodcock, 'Personalized Pricing as Monopolization' (2019) 51(2) Connecticut Law Review 311, who argues that disallowing arbitrage in itself is harmful for consumers.
[290] See Alan Sears, 'The Limits of Online Price Discrimination in Europe' (2019) 12 The Columbia Science & Technology Law Review; See also Ezrachi and Stucke; See also Ramsi A. Woodcock, 'Big Data, Price Discrimination and Antitrust', (2017) 68 Hastings Law Journal 1371, 1420.
[291] See Oren Bar-Gill, 'Algorithmic Price Discrimination: When Demand Is a Function of Both Preferences and (Mis)Perceptions' 86 University of Chicago Law Review (Forthcoming); See also BEUC Report 2023.
[292] Case 27/76, *United brands v. Commission of the European Communities* ECLI:EU:C:1978:22.
[293] Etye Steinberg, 'Big data and personalized pricing' (2020) 30(1) Business Ethics Quarterly 97, 117.

to-firm knowledge of their respective strong and weak consumers.[294] The practice has been also defended by Competition Authority heads of some countries. [295]

There are many studies that point towards occurrence of price personalization while others have indicated that price personalization may not be a widely occurring phenomenon in online websites. There are also different outcomes based on whether the metric to assess a price difference for an identical product is an operating system difference, geographical difference or temporal difference. In 2018, the European Commission's market study on price personalization found evidence of the conduct being more prevalent in certain markets such as hotel and airline booking than in websites selling shoes and TVs. The study however did not find sufficient evidence of personalized pricing occurring at a large scale across EU Member States.[296] The EU reached a similar finding in their report on personalized pricing and concluded that currently there isn't sufficient evidence to hold that the practice is widely prevalent.[297]

One of the earliest empirical study on the existence of price personalization is by Mikians et al., who conducted a study in 2012 to assess the existence of online price discrimination (and also search discrimination which is not relevant to this chapter) and found no such existence when it came to different Operating Systems/Browser combinations.[298] However, they found existence of price differences based on geographical location of customer of up to 166%.[299] They also found evidence of price difference when the origin Uniform Resource Locator (URL), which directs users to a website, is considered of up to 23%.[300] Vissers et al. did not find any evidence of price discrimination based on location (Locations were in Belgium and USA). [301]

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[294]James C. Cooper, Luke M. Froeb, Daniel P. O'Brien and Steven T. Tschantz, 'Does Price Discrimination Intensify Competition? Implications for Antitrust' (2005) 72(2) Antitrust Law Journal 327, 373

[295] Sam Thielman, 'Acting Federal Trade Commission head: internet of things should self-regulate', (The Guardian, March 2017), https://www.theguardian.com/technology/2017/mar/14/federal-trade-commission-internet-things-regulation.

[296] European Commission, 'Consumer market study on online market segmentation through personalised pricing/offers in the European Union', ISBN 978-92-9200-929-8, 19 July 2018.

[297] OECD, 'Personalised Pricing in the Digital Era' – Note by the European Union, (28 November 2018).

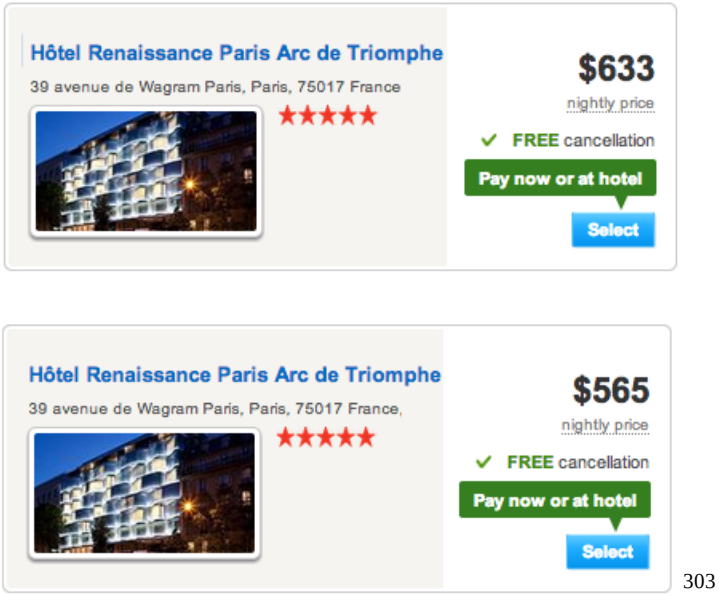
[298] Jakub Mikians, László Gyarmati, Vijay Erramilli, and Nikolaos Laoutaris, Detecting price and search discrimination on the Internet, Conference: Hotnets, DOI:10.1145/2390231.2390245.

[299] Ibid. Geographical price differences are to be considered with scepticism as other reasons might lead to a price difference apart from price discrimination by the firm.

[300] Ibid.

[301] Thomas Vissers, Nick Nikiforakis, Nataliia Bielova, Wouter Joosen, 'Crying Wolf? On the Price Discrimination of Online Airline Tickets' 7th Workshop on Hot Topics in Privacy Enhancing Technologies (HotPETs 2014), Jul 2014, Amsterdam, Netherlands. ffhal-01081034f.

In Hannak et al.'s 2014 study comprising a survey of a wide variety of online firms such as online retail sites and travel booking sites consisting of 300 real-world users and synthetically generated fake users, it was found that nine out of sixteen popular e-commerce websites engaged in personalization which was evidenced by either price discrimination or price steering.[302] An example of the price inconsistency shown in the paper by Hannak et al. is attached below where the real users versus controlled user accounts showed a clear price difference-



[303]

Figure 4: Price difference on hotel search

In 2018, Hupperich et al. were unable to prove that price differences existed when search requests were sent to four accommodation and one rental website from several locations.[304] They concluded that in some cases price differences were noticed but they were individualised cases rather than systemic price differentials in their setup of disguised systems based on digital fingerprints.[305] In 2018, Hindermann provided a survey-based overview of previous studies on price personalization and found that there was evidence of discrimination on user-based,

[302] Aniko Hannak, Gary Soeller, David Lazer, Alan Mislove and Christo Wilson, Measuring Price Discrimination and steering on E-commerce Web Sites, In Proceedings of the 2014 Conference on Internet Measurement Conference (IMC '14). Association for Computing Machinery, New York, NY, USA, 305–318.
[303] ibid, 312-313.
[304] Thomas Hupperich, Dennis Tatang, Nicolai Wilkop, and Thorsten Holz, An empirical study on online price differentiation. In: Proceedings of the Eighth ACM Conference on Data and Application Security and Privacy. CODASPY '18, New York, NY, USA, ACM (2018) 76–83.
[305] ibid.

location-based, and technical features.[306] A Canadian News Agency investigation found price discrepancies of up to 70 $ based on levels of privacy which was modified based on allowing or disallowing cookies on one's browser. [307]

This section clearly shows that not every firm engages in price personalization but there is some evidence of it occurring albeit limited. It is unwise to pass it as a generalisation, but it is also unwise to consider it as an activity that takes place only in a few markets based on the existing evidence which is unsure of either conclusion. While it may not be impossible for personalized pricing to take the firm of First-Degree price discrimination in the future, there is no evidence to show that personalized pricing resembles anything more than sophisticated third-degree price discrimination currently. It was also seen that price personalization was beneficial when there is sufficient competition in the market. One of the considerations is regarding the assessment of price personalization by dominant firms. For this, the chapter will engage with the use of Article 102 TFEU by considering the concepts that may be applicable. Prior to that, the chapter will discuss certain perspectives relating to how price personalization may be viewed from a consumer stand point to ascertain whether the law needs to play a role.

2.4 Normative perspectives on price discrimination: An extension to the current literature on price personalization

This section will discuss various norms relating to fairness, welfare and trust that play a role in while determining the legality and need for regulation of price discrimination. For this, this section will consider price discrimination carried out by firms in an imperfectly competitive setting, an oligopolistic setting, and a monopoly setting. The effects of price discrimination in intermediate and final markets are different. While in the case of intermediate firms, the upstream firm can distort competition in the downstream market, there is no competition that exists between end users which the dominant discriminatory firm can distort.[308] Price discrimination in the case of end users leads to lowering of prices for those consumers who were unable to afford the product earlier or unwilling to pay the earlier price.[309] When price discrimination concerns end consumers, notions such as fairness, efficiency and welfare are

[306] Christoph Michael Hindermann, Price Discrimination in Online Retail, ZBW – Leibniz Information Centre for Economics, Kiel, Hamburg, 2018.
[307] Katie Pedersen, How companies use personal data to charge different people different prices for the same product, CBC Marketplace, CBC Business, Nov 24 2017, How companies use personal data to charge different people different prices for the same product | CBC News.
[308] See Akman 2012 (n 382) 231-265.
[309] ibid 248-250.

grouped under the notion of normative considerations in this chapter. While a price may be fair in one case, it may not be an efficient price and vice versa. To what extent these notions motivate the law is a question this section seeks to answer.

2.4.1 Price discrimination: different considerations

Price discrimination can have varying effects based on the market setting that is of concern. One example of this is shown by Bester and Petrakis in a duopoly market which is characterized by offering of coupons by one seller to the customers of the other seller in order to incentivize them to leave their respective sellers. [310] It was concluded that couponing reduced consumer switching costs and intensified competition between sellers.[311] Hviid and Waddams found that banning price discrimination in the UK's retail energy market would lead to higher prices as a higher uniform price would be levied to all.[312] Both these papers show the important of considering the long-term effects of price discrimination as a simple ban may not be an effective solution.

Fairness is another important consideration when price discrimination is concerned. This can be either transactional fairness,[313] or relative fairness. Fairness as understood as equality and equal treatment and welfare (under the consumer or total welfare standard) may have conflicts when price discrimination is concerned.[314] Banning price discrimination based on any notions of fairness may have some drawbacks as such a decision would not be based on economic considerations.[315]

Total welfare is the easier standard to implement in the case of price discrimination as it considers the overall benefit or loss to the market in terms of accounting for the distributional effect between different user groups which the consumer welfare standard seems to ignore.[316]

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[310] Helmut Bester and Emmanuel Petrakis, 'Coupons and oligopolistic price discrimination', (1996) 14 International Journal of Industrial Organisation 227, 242.
[311] ibid 236-238.
[312] Morten Hviid and Catherine Waddams Price, 'Non-Discrimination clauses in the retail energy sector' (2012) 122(562) The Economic Journal 236, 252.
[313] Bruce Lyons and Robert Sugden, 'Transactional fairness and unfair price discrimination in consumer markets', CCP Working Paper 20-07, (October 2020), https://ideas.repec.org/p/uea/ueaccp/2020_07.html.
[314] ibid 258-260.
[315] Thomas Gehrig and Rune Stenbacka 'Information sharing and lending market competition with switching costs and poaching' (2007) 51(1) European Economic Review, 77, 99.
[316] Michael Harker, 'Antitrust Law and Administrability: Consumer versus Total Welfare', (2011) 34(3) World Competition 433.

Including any notions of fairness may not be possible if a total welfare standard is opted for as the main determinant of total welfare is an increase of output which is a purely economic consideration.

However, a seller has a duty to be perceived as fair to all their buyers. While, price discrimination may have benefits for consumers, it needs to be carried out in a manner that consumers do not feel exploited through deceptive conduct by firms.[317] Such conduct could be punished through regulation or competition law enforcement in case of a dominant firm.

For price discrimination to work successfully in imperfectly competition markets or monopolistic markets, maintaining consumer trust is a must as consumers have been noted to feel more negative emotions (unfairness) when they are charged a higher price due to price discrimination than positive emotions when they are offered a lower price.[318] Disclosing the fact that price discrimination occurs at the outset may be an effective way for a discriminating firm to successfully carry our the practice. This is to prevent consumers from taking revenge for feeling that they have been wronged or have been offered an unfair price as it has been shown in the past that consumers tend to carry out such actions.[319]

2.4.2 Consumer Response

Chen et al. show that the presence of more consumer information can intensify competition as firms attempt to poach the other firm's customers, but competition can be stifled when more consumers become active in identity management and begin to avoid being charged a personalized price and obtain the lower uniform price.[320] There is a cost to gather information

[317] See Lyons and Sugden 14-15. They propose transactional fairness to be the main principle that governs price discrimination.
[318] Lan Xia, Kent B. Monroe and Jennifer L. Cox, 'The Price Is Unfair! A Conceptual Framework of Price Fairness Perceptions', (2004) 68(4) Journal of Marketing 1, 1-15.
[319] Zaid Mohammad Obeidat, Sarah Hong Xiao, Zainah al Qasem, Rami al dweeri, and Ahmad Obeidat, 'Social media revenge: A typology of online consumer revenge', (2018) 45 Journal of Retailing and Consumer Services 239, 255. The paper studies different types of online revenge behaviours enacted from a sample of Jordanian and British consumers; See also Roger Bougie, Rik Pieters, and Marcel Zeelenberg, 'Angry Customers Don't Come Back, They Get Back: The Experience and Implications of Anger and Dissatisfaction in Services', (2003) 31 Journal of the Academy of Marketing Science 377, 393; See also Xia et al. 10.
[320] Zhijun Chen, Chongwoo Choe and Noriaki Matsushima, 'Competitive Personalized Pricing', Monash Economics Working Papers, No 02-18, Available at SSRN: http://dx.doi.org/10.2139/ssrn.3136880.

for consumers and firms may still be able to benefit from segregating consumers into informed and uninformed consumers.[321]

Such separation may be more likely in the digital era. Consumers can protect themselves by limiting the amount of information available regarding them in case they would want to avoid being profiled for price personalization.[322] Consumers can engage in identity management by misleading the platform through tactics such as deleting cookies, creating new accounts etc., but may be limited in their ability to do so due to tracking technologies and browser fingerprints.[323] Consumers could also voluntarily disclose their data in a manner that they selectively reveal their data based on what they feel will be beneficial to them when their data gets used for personalization. [324]

Coming to the application of the law to price personalization, Article 102 TFEU mainly deals with situations where a dominate firm engages in exclusionary or exploitative conduct. Conduct that involves consumers feeling that they have been offered unfair or discriminatory prices can come within its scope subject to certain limitations as will be seen in the case laws from the following section on the application of Article 102 TFEU to price personalization.

2.5 Application of competition law to price personalization

Section 1.2 of Chapter 1 discussed the current scope of Article 102 TFEU and it was found that nothing precludes a dominant firm from conducting competition on the merits.[325] The consideration in this section of Chapter 2 is whether price personalization can be considered to be within competition on the merits. So far, it has been discussed that price personalization can

[321] Steven Salop, 'The Noisy Monopolist: Imperfect Information, Price Dispersion and Price Discrimination', (1977) 44(3) The Review of Economic Studies, 393, 406; See also Steven Salop and Joseph Stiglitz, 'Bargains and Ripoffs: A Model of Monopolistically Competitive Price Dispersion', (1977) 44(3) The Review of Economic Studies, 493, 510.
[322] CBC Marketplace, 'Online price discrimination exists — and it can be beaten', (16, May 2015) https://www.cbc.ca/news/canada/british-columbia/online-price-discrimination-exists-and-it-can-be-beaten-1.3072746.
[323] Erik Larkin, 'Browser Fingerprints: A Big Privacy Threat', Privacy Watch, PCWorld, March 2010, Browser Fingerprints: A Big Privacy Threat | PCWorld; See also Erik Larkin, 'Are Flash Cookies Devouring Your Privacy?', Privacy Watch, PCWorld, October 2009, Are Flash Cookies Devouring Your Privacy? | PCWorld.
[324] S. Nageeb Ali, Greg Lewis and Shoshana Vasserman, 'Voluntary Disclosure and Personalized Pricing', Stanford University, Graduate School of Business, Research Papers 3890, https://shoshanavasserman.com/files/2020/08/Voluntary-Disclosure-and-Personalized-Pricing.pdf; See also Sinem Hidir and Nikhil Vellodi, 'Privacy, Personalization and Price Discrimination', (2021) 19(2) Journal of the European Economic Association 1342.
[325] See *Intel* [134-36].

have benefits for consumers as some consumers may be offered lower prices, but these prices would get subsidized by those that have a higher WTP and get charged a higher than uniform price.[326] It is hard to judge the effect of a purely exploitative effect on consumers using Article 102 TFEU due to the varying effects on consumer welfare and also due to the fact that there are very few Article 102 TFEU cases that deal with end consumer exploitation.

Under Article 102 TFEU, a dominant firm that engages in abusive conduct can cause two types of harms namely, exclusionary or exploitative.[327] Within Article 102, clause (c) of the provision prohibits a dominant firm from 'applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage'. There are many ways a firm can price discriminate. Some of the past cases that have been decided by the Commission and EU courts provide more details on the scope of application of Article 102(c) TFEU. Some of the points of discussion relating to this is on whether the law applies only to transactions concerning upstream and downstream firms where a discriminatory price causes disruption to downstream competition or whether end consumers are also included within the scope of the provision.[328]

This is due to the existence of the term 'competitive disadvantage' in the provision which leads one to assume that this applies only to intermediate sellers since end consumers do not compete with one another. Past EU case law on price discrimination has also required competitive disadvantage to be shown as will be seen subsequently.[329] This section will analyse case laws and commentaries to assess whether price personalization that concerns end consumers can be brought within the scope of Article 102(c) TFEU.

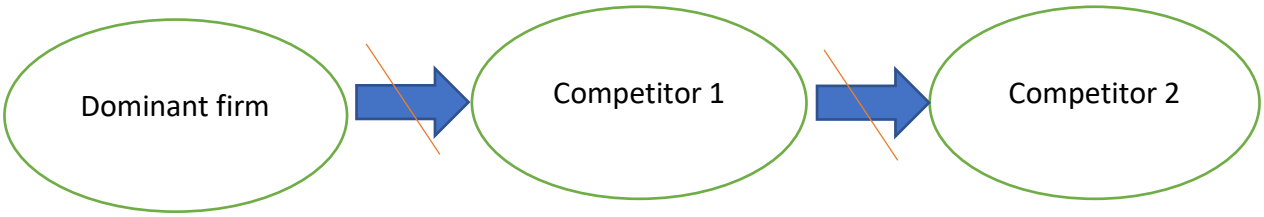
One of the first cases relating to price discrimination is that of *United Brands* where the CJEU prohibited the disadvantaging of its customers by offering discriminatory prices based on geographic parameters.[330] The CJEU held that discriminating between customers of different EU Member States even though there were no cost differences in selling to customers from different Members States constituted applying dissimilar conditions to equivalent transactions and abused Article 102(c) TFEU.[331]

[326] See Section 2.1.
[327] See Whish and Bailey 209.
[328] See Akman 2007 (n 267).
[329] Case C-525/16, *MEO v. Serviços de Comunicações Multimédia SA* ECLI:EU:C:2018:270.
[330] See *United Brands case* [183] and [214-34].
[331] Ibid [228-34].

The requirements under Article 102(c) to prove price discrimination are to show- 1) the existence of equivalent transactions, 2) to show the applying of dissimilar conditions or dissimilar prices, and 3) to show that a competitive disadvantage was caused to the customers.[332] While the application of Article 102(c) TFEU is the primary focus of this section of Chapter 2, some past cases that do not fall directly under Article 102(c) but rather under 102(a) or 102(b) are also discussed as they inform the reader regarding the types of injuries that can be caused as a result of the actions of a dominant firm.

The types of injuries based on discriminatory conduct can be categorised on the basis of whether they are exploitative or exclusionary in nature as primary-line injuries or secondary-line injuries respectively.[333] Primary-line injury cases mainly have exclusionary effects on firms competing with the dominant firm that is carrying out the abusive conduct. An example of that is a dominant firm offering more favourable conditions (discounts or price cuts) to its own affiliations and strengthening their position by disadvantaging horizontal competitors.[334] Secondary-line injury cases can have an exploitative effect on the trading partners of the firm as a result of some customers being favoured over others. An example of this is when a dominant firm price discriminates between its unaffiliated downstream customers which results in favouring some buyers over others.[335] Secondary-line injury cases can also have an exclusionary effect if the discriminating firm is vertically integrated.[336] For the purpose of clarity in assessment, the chapter will engage with these two types of injuries separately.

2.5.1 Primary-line injury cases- Exclusionary effects



[332] Ioannis Lianos, Valentine Korah, and Paolo Siciliani, *Competition Law: Analysis, Cases, & Materials*, (Oxford University Press, 2019), 1146.
[333] Lena Hornkohl, 'Article 102 TFEU, Equal Treatment and Discrimination after Google Shopping', (2022) 13(2) Journal of European Competition Law & Practice 99–111.
[334] Pablo Ibanez Colomo, 'Exclusionary discrimination under Article 102 TFEU' (2014) 51(1) Common Market Law Review, 141, 164.
[335] See Graef 543-544.
[336] See Hornkohl (n 333).

Figure 5- Depicts the effect on competition due to price discrimination by the dominant firm towards its direct competitors

The case of *British Airways* provided important insights into the CJEU's treatment of price discrimination and its effect using Article 102(c) TFEU. British Airways (BA) offered schemes to its agents through which they could earn additional commission based on their performance.[337] The Commission found this to be anti-competitive and in violation of Article 102 TFEU by considering that there was both a form-based and effect-based violation based on past rebates related judgments such as *Hoffman-La Roche* and *Michelin* judgments.[338]

The General Court (ex-Court of First instance) considered whether the fidelity/loyalty rebates had the effect of restricting agents' freedom by hindering their ability to choose freely among BA and its competitors.[339] The GC concurred with the Commission by finding that there was no economically justified reason for such conduct apart from intending to eliminate competitors from the market.[340]

Before the CJEU, BA argued that the incentives offered to agents were not of the nature where their regular income would be affected in case they do not achieve the performance-based results that would have allowed them to secure a higher commission.[341] The CJEU concurred with the Commission and GC that the scheme could lead to a noticeable increase in commission for the agents which other competitors were not able to offer at the time and thereby distort competition further.[342] This case resembles a primary-line injury being caused to other airline operators as the agent schemes led to foreclosure of competition at a horizontal level.

The CJEU considered the question of whether Article 102(c) TFEU applies to *British Airways* where the dominant firm discriminated between agents that achieve certain performance targets and those that do not by offering differing incomes.[343] The CJEU held that such behaviour falls foul of Article 102(c) TFEU and does not need actual quantifiable harm to each business partner to be shown individually.[344] The harm that the CJEU found to have occurred to the

[337] Case C-95/04 P, *British Airways v Commission*, European Court Reports 2007 I-02331 [9-10].
[338] Commission Decision on *British Airways* July 1999 [96].
[339] Case T-219/99 *British Airways* [270].
[340] ibid [277-88].
[341] Case C-95/04 [49].
[342] Ibid [113-125].
[343] Ibid [144].
[344] Ibid [145].

agents signifies that there was also an element of secondary-line injury in the case. The case shows that both categories of harm may be visible in the same case.

Some other cases that developed the primary-line injury jurisprudence are *Post Danmark I* and *Tomra*. In *Post Danmark I*, the dominant firm, Post Danmark (PD) offered lower rates for its services to the former customers of its competitor and offered its own pre-existing customers higher rates.[345] This case is also interesting in that both types of injuries could be envisaged as PD discriminated between customers and could have said to have caused a secondary-line injury along with the primary-line injury caused to its competitor due to loss of customers. However, the CJEU held that a pricing practice in itself cannot be considered discriminatory just because some customers have been charged a lower price while others a higher one,[346] and that a likely exclusionary effect needs to be shown as well in order to fall within Article 102(c) TFEU.[347]

In *Tomra,*[348] the CJEU found that rebate schemes which were individual to each customer had the same effect as exclusivity clauses.[349] The individualised rebate schemes prevented customers from switching to other competitors as they were nudged to buy all the equipment due to the discounts being based on each buyer's individual requirement. The aim of this was to exclude competitors from the market causing a primary-line injury and the CJEU held that *Tomra* abused its dominant position. The position of the Court seems to have regressed from an effects-based analysis when primary-line injuries are concerned since *Tomra* was decided after *Post Danmark I*. Notably, *Tomra* was not a case concerning Article 102(c) TFEU but is notable in that it informs the understanding of primary-line injury cases.

Another such case is that of *Intel* which needs to be discussed in light of primary-line injury cases. In the case of *Intel*, the General Court continued a formalistic view that exclusivity rebates led to an exclusionary effect as it foreclosed the market for its competitors.[350] The CJEU overturned the General Court's judgment in *Intel* and created a new criterion for assessment of exclusionary abuses by only considering the foreclosure of as-efficient competitors.[351] The Court also took the view that any anti-competitive effect that arises out of the conduct of the dominant firm may be counter balanced with any possible advantages in terms of efficiency

[345] Case C-209/10, *Post Danmark A/S v Konkurrencerådet* ECLI:EU:C:2012:172 [8].
[346] ibid [30].
[347] ibid [44].
[348] Case C-549/10 P, *Tomra Systems ASA and Others v European Commission* ECLI:EU:C:2012:221.
[349] Ibid [78-80].
[350] See *Intel* GC judgment.
[351] See *Intel* CJEU judgment [134].

that benefits consumers.[352] *Tomra* and *Intel* are cases that are worth mentioning in this discussion because they inform the discussion on whether certain pricing practices that involve discriminatory price cuts at a downstream level (rebates in the case of these two) can lead to foreclosure of horizontal competition.

In price personalization cases, there may be a possibility to apply primary-line injury cases by assuming that price personalization leads to redistributive benefits which can be weighed against the harm done to competition. For example, if an online shoe seller is able to price discriminate effectively and allow more consumers to be able to purchase their product, this can be considered an overall benefit to consumers. This can be weighed against the level of market foreclosure that occurs by using the *Intel* criterion.[353]

Considering the equally efficient competitor test that is considered in abuse of dominance cases after the cases of *Intel*, to determine whether the rival that has been harmed due to the conduct is as efficient as the dominant firm,[354] the ability of the online firm to price personalize can be judged to be due to its dominant position which allows it access to information on consumers. If other competitors are provided data on consumers, it may allow them to carry out a similar practice and compete with the dominant firm.[355] However, this might lead to issues pertaining to Article 101 TFEU which deals with horizontal and vertical coordination by competitors which are not within the scope of the thesis.[356]

Therefore, it can be concluded that primary-line injury cases are inapplicable to the case of price personalization. This leads us to the second type of injury that may occur due to price discrimination and see whether it may be applicable to price personalization cases.

[352] ibid [140].
[353] ibid.
[354] See *Intel* case (n 238) [139].
[355] See *Oscar Bronner* case (n 105).
[356] Kasper Drazewski, 'Each consumer a separate market?' (July 2023) BEUC position paper on personalised pricing.

2.5.2 Secondary-line injury- Exploitative effects

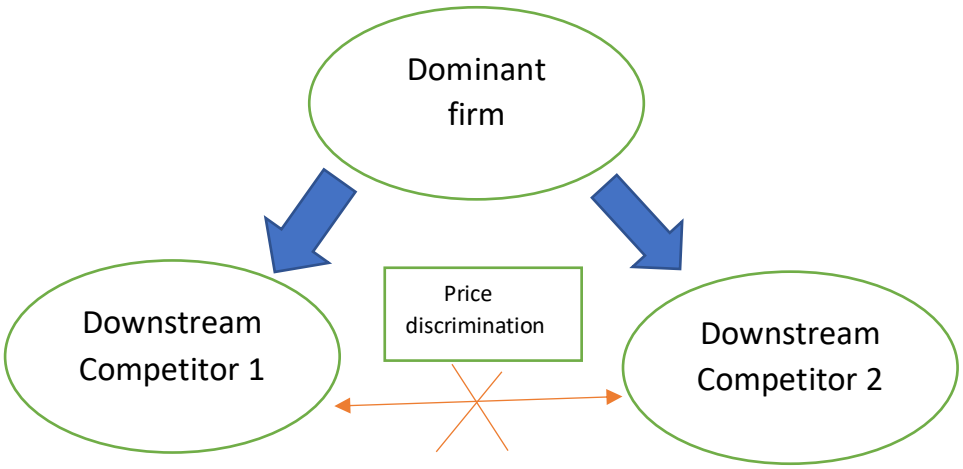


Figure 6- Depicts the hampering of competition downstream due to price discrimination by the upstream firm

In Figure 6, when competition between downstream competitor 1 and downstream competitor 2 gets affected due to the discriminatory conduct of the dominant firm, it is referred to as secondary-line injury. In the EU, the first instance of price discrimination occurred in *United Brands v. Commission* where the dominant firm engaged in geographic price discrimination while selling bananas to its national distributors across the EU which the court found to have violated Article 102(c) TFEU.[357]

Subsequently, the CJEU found dissimilar conditions to have been applied to equivalent transactions in *Corsica Ferries*[358] where the discrimination carried out by the port controller was regarding on whether maritime transport undertakings transport between different Member State ports or between ports with the National territory (cabotage).[359] A similar finding was concluded by the Commission and the General Court in the case of *Clearstream Banking AG v Commission.*[360] The case dealt with discriminatory prices being charged to the customers of a dominant clearing and settlement service provider.[361] It was also held that there is no requirement to show a quantifiable proof of competitive disadvantage being suffered by the

[357] See *United Brands v Commission* (n 223).
[358] Case C-18/93, *Corsica Ferries Italia Srl v Corpo dei Piloti del Porto di Genova* EU:C:1994:195.
[359] ibid [38-40].
[360] Case T-301/04, *Clearstream banking AG v Commission* ECR 2009 II-03155.
[361] ibid [194].

complainant as long as it is evident that the actions of a dominant firm can be seen to have led to distortion of competition.[362]

The *British Airways* case clarified the position of the Court regarding secondary-line injuries as BA discriminated between agents that achieved certain performance targets and those that do not by offering differing incomes.[363] The CJEU held that such behaviour falls foul of Article 102(c) TFEU and does not need actual quantifiable harm to each business partner to be shown individually.[364] As mentioned previously, *British Airways* is a case that has elements of both types of injuries as does *Post Danmark I* but the difference in the latter is that it reversed the position taken in *British Airways* and made the finding of exclusionary effects a requirement to show an abuse under Article 102(c) TFEU.[365] Another important case that informed regarding the scope of secondary-line injury cases is that of *Kanal 5* where the dominant copyright management organisation charged royalties based on the remuneration of different TV channels rather than the services provided by that organisation.[366] It was concluded that such differential treatment would place these companies at a competitive disadvantage compared to their competitors leading to a secondary-line injury.[367]

The most recent case on secondary-line price discrimination is the *MEO* case where it was noted that all relevant circumstances must be taken into consideration in the analysis of whether a competitive disadvantage is caused as a result of price discrimination.[368] This was a move away from *British Airways* and confirming *Post Danmark I* as the standard of proof was made more rigorous. The court held that it needs to be proved that the conduct of the dominant firm is likely to restrict competition by considering the duration of the price charged, the conditions of the market, and existence of a strategy to exclude competitors.[369]

The Court's line of argument in Paragraph 26 of the *MEO* case states that *'..the mere presence of an immediate disadvantage affecting operators who were charged more, compared with the tariffs applied to their competitors for an equivalent service, does not, however, mean that competition is distorted or is capable of being distorted'*.[370] This line of argumentation is

[362] ibid [192-193].
[363] Ibid [144].
[364] Ibid [145].
[365] See Post Danmark [30-45].
[366] Case C-52/07, *Kanal 5 Ltd and TV 4 AB v Föreningen Svenska Tonsättares Internationella Musikbyrå (STIM) upa* ECLI:EU:C:2008:703[42-48].
[367] ibid [47-48].
[368] Case C-525/16, *MEO v. Serviços de Comunicações Multimédia SA* ECLI:EU:C:2018:270 [28-31].
[369] ibid [31].
[370] ibid [26].

similar to the Court's argument in Paragraph 134 of the *Intel* judgement where the Court held that '*..not every exclusionary effect is necessarily detrimental to competition..*'.[371] It can therefore be said that there are similarities in the way that both primary-line injury and secondary-line injury cases have been decided by the Court by considering the above two cases. The Court's reasoning suggests a move to a more economics-based analysis when price discrimination cases are concerned.

The jurisprudence on secondary-line injury cases was provided an addition through the case of *Google Shopping* where the General Court stated in Paragraph 155 that '*...comparable situations must not be treated differently and different situations must not be treated in the same way unless such treatment is objectively justified...*'.[372] The case tacitly extends the non-discrimination principle to non-price cases as well which suggests a move towards uniformity in case assessment in the application of Article 102 TFEU. Following *Unilever*, the separation between price and non-price cases is further removed as the AEC test may be applicable for both.[373]

2.5.3 Application of Article 102(c) TFEU to end consumers- Can it be applied to price personalization?

Noticeably, the cases discussed so far have mainly involved discriminatory conduct against intermediate customers. However, the focus of price personalization mainly concerns end consumers. When it comes to applying Article 102 TFEU, Akman, who has written extensively on its application to price discrimination,[374] argues that the increase or decrease in welfare of the intermediate customer may not correlate to the same to an end consumer and vice-versa by referring to the fact that when an upstream firm may use non-linear pricing to increase the surplus of a downstream firm, it may result in a decrease in intermediate customer welfare but may not harm end consumer welfare.[375]

This is because, if the intermediate customer/ reseller tries to pass on the price to the consumer, they have an alternative option to buy from since price discrimination would not be feasible without the existence of multiple intermediate customers. Another reason for this distinction is due to the possibility of the upstream seller and the intermediate seller being integrated while

[371] See *Intel* case (n 238), [134].
[372] Se *Google Shopping* [155].
[373] See *Unilever* [56-62].
[374] 3 papers by Akman relating to price discrimination cited in the chapter.
[375] Pinar Akman, ''Consumer' versus 'Customer': The Devil in the Detail', (2010) 37(2) Journal of Law and Society 327, 327-30.

such a possibility cannot be envisaged with end consumers.[376] Therefore, the question arises whether Article 102(c) TFEU is applicable to cases relating to end consumer price discrimination.

One of the only cases that concerns end consumer price discrimination is a Commission Decision from 1998 relating the Football World Cup held that year in France.[377] In 1998, the Commission passed a Decision against Le Comité français d'organisation de la Coupe du monde de football 1998 (CFO), an organisation that was responsible for the sale of tickets for the 1998 Football World Cup in France for applying discriminatory conditions while engaging in the sale of tickets to end consumers. CFO had charged discriminatory prices to those whose postal address was situated outside France by charging them additional fares. The Commission held that this disadvantaged the general public outside of France.[378]

As seen Sections 2.2 and 2.3, the case law on price discrimination involving the Commission and other EU Courts (Article 102(c)) requires a certain degree of harm or harmful effect being caused to the structure of competition as contended by the defendant, CFO.[379] The Commission rejected the notion that the structure of competition needs to be disrupted for the application of Article 102 TFEU to a case of price discrimination by stating that Article 102 also seeks to protect the interests of consumers.[380] In addition to this, the Commission added that protection of consumers can be achieved by either prohibiting certain anti-competitive conduct that indirectly affects consumers or by prohibiting conduct that directly affects consumers in an adverse manner.[381]

By considering the *1998 Football World Cup* Decision itself, it would be fair to consider that Article 102(c) TFEU applies to end consumers. However, *Post Danmark I* and *MEO* have clearly laid down that a competitive disadvantage needs to be shown which leads to distortion of competition. This would suggest that the CJEU's decision has indirectly overridden the Commission's Decision from 1998 even though neither of the two cases explicitly mention the *1998 Football World Cup* case.

Prior to *MEO*, it had been suggested by Akman that an effects-based approach must be employed instead of a form-based one when the application of Article 102(c) TFEU was

[376] See Varian (n 276) 623-624.
[377] Case IV/36.888 *1998 Football World Cup*.
[378] ibid [93-98].
[379] ibid [99].
[380] ibid [100].
[381] ibid.

concerned and a decrease in consumer welfare (overall fall in consumer surplus) must be shown for a price to be found abusive.[382] She also suggests using price discrimination only when there is an exclusionary harm also involved as the effects of price discrimination on end users may be complex (when intermediate customers rather than consumers are involved). She says that both exploitation and exclusions should exist for a harm under Article 102 to be found. In the case of price discrimination, she argues that competition law should not ban a practice that may be welfare enhancing and that a case-by-case approach as seen in economics should be utilized.[383]

Price discrimination cases dealing with end consumers alone with no harm done to competitors rarely exist. The use of the unequal treatment principle established in *Google Shopping* could be said to include end consumers as that part of the judgment is not restricted to business users.[384] The same case also allows the possibility of considering an objective justification which is likely to be proved in a case concerning end consumer price personalization as there is high likelihood of an increase in total output which can be considered an overall improvement to the market.[385] The case law analysis carried out in this section would also back this proposition as the CJEU has also tended to only find an abuse when business customers have been adversely impacted rather than end consumers. The chapter therefore argues that Article 102(c) TFEU may not be a correct fit for price personalization cases on the basis of the Court's past rulings and the current approach relating to maximising consumer welfare that has been one of the goals of EU competition law.[386]

However, the chapter also poses a different question considering the above analysis which is whether Article 102 TFEU should be considered to play a role in price personalization cases. This question is posed as it is important to consider whether direct end consumer harm is in fact an Article 102 TFEU problem. This may require the use of clause (a) of Article 102 TFEU to play a role which prohibits unfair trading conditions from being imposed. Consumer Protection Directives may be more relevant in the case of price personalization instead of Article 102(c) TFEU due to the varying effects of price personalization being considered within the scope of Consumer Protection Directives.[387] As seen from Article 102(c) TFEU cases, even

[382] Pinar Akman, *The Concept of Abuse in EU Competition Law: Law and Economic Approaches* (Hart Publishing 2012) 260-265.
[383] ibid.
[384] See *Google Shopping* [155].
[385] ibid [560]. Google was unable to show that the benefits outweighed the harm.
[386] See *Servizo Elletrico* [45-48].
[387] See Section 2.6.

though price personalization may fall within its scope, this chapter argues that it should not be used in its current form.

2.5.4 Article 102 TFEU and price personalization

The CMA is one of the only competition agencies that has dealt with the issue in some manner by contributing a report on it.[388] The OECD is one of the international organisations that has contributed a similar report.[389] It also finds mention in the Furman Report.[390] However, No NCA or the EC has brought forth a case of personalized pricing due to its ambiguous effect on consumer welfare.[391] This is also a result of a higher burden of proof due to the *MEO* case.[392]. An effects-based approach to price discrimination cases is preferable when judging price personalization cases which gives the firm an opportunity to prove that the act of price discrimination leads to efficiencies for consumers and the market by more users joining the market.[393]

There are notable benefits to price discrimination which need to be considered when developing a legal framework to tackling cases relating to first-degree price discrimination which may have exploitative aspects.[394] It is widely agreed that the welfare effects of personalized pricing can have positive or negative effects and that price discrimination under Article 102(c) TFEU may not be the right tool to be used to deal with personalize pricing.[395] It is therefore important to consider the application of the other legislations to deal with the issue. There may be a case for using Article 102(a) TFEU (unfair trading conditions) along with data protection, consumer protection and anti-discrimination laws in order to prohibit and punish the harmful actions of a dominant firm as a result of price personalization.

Coming to how these normative considerations relate to secondary-line price discrimination, it is evident in the way cases have been decided to concluded that aspects such as fairness and

[388] See CMA Report on pricing algorithms, (n 171).
[389] See OECD Report, (n 170).
[390] See Furman Report (n 12) [3.26].
[391] See Botta and Wiedemann (n 173).
[392] See *MEO* case (n 267).
[393] ibid 10-14.
[394] Mariateresa Maggiolino, 'Personalized prices in European Competition Law', Bocconi Legal Studies Research Paper No. 2984840 (2017).
[395] See Townley et al., (n 268).

trust have played a smaller role in the development of competition law cases as much as aspects related to exclusionary harms have. While these norms about a fair price and mutual trust between consumers and firms are important, application of the law requires objectivity. The varying effects of end consumer price discrimination make it hard to allow the application of competition law in a uniform manner as the balance between fairness, trust and efficiency is a delicate one.

Economides and Lianos make the case for application of competition law to situations where the benefit in terms of a greater number of users being able to afford a product due to price personalization which wasn't possible with uniform prices is outweighed by the loss in welfare as a result of an increase in prices for some consumer due to personalization. [396] They also argue that consumers value not only a price within their willingness to pay, but also the competitive process that is involved in setting a price due to interaction between sellers and buyers. Competition law can be involved in instances of lack of transparency by firms while engaging in personalized pricing but they question whether competition law is the best tool to be used in situations of personalized pricing due to the complexity involved in determining the effect on welfare.[397] To assess whether Competition law has a role to play, the scope of Article 102(a) TFEU needs to be understood.

2.5.5 Use of Article 102(a) TFEU for end consumers

Article 102(a) TFEU is applicable to cases where prices may be seen to be excessive in relation to the price of a comparator or a past price charged by the dominant firm.[398] The most recent CJEU case on excessive pricing is found in the case of the *Latvian Copyright Society* where the Court found an abuse of dominance on the part of the only copyright society in Latvia for charging rates that were two or three times more than those in other Baltic States and more than 50-100 percent of the average level when compared to 20 other Member States. [399] The court noted that there is no single method or minimum threshold for comparison when it comes

[396] Nick Economides and Ioannis Lianos, 'Restrictions on Privacy and Exploitation in the Digital Economy: A Competition Law Perspective' (2021) 00(00) Journal of Competition Law & Economics 1, 44-65.
[397] See Section 2.4.2 of this Chapter.
[398] See Section 3.4 in Chapter 3.
[399] Case C-177/16, Autortiesību un komunicēšanās konsultāciju aģentūra/Latvijas Autoru apvienība v. Konkurences padome (AKKA/LAA), JUDGMENT OF THE COURT (Second Chamber), 14 September 2017, Paragraphs [7-13].

to cases of excessive pricing but the factor that determines an unfair or excessive price is that the price charged should be significantly higher and repetitive in nature or persistent.[400] The Court considered whether the price charged in the case was above reasonable levels which does not justify the economic value of the product or service provided.[401]

It would be hard to apply this to end consumers in the case of personalized pricing because the price charged to all consumers is not uniformly excessive but is differentiated. It would be hard to compute whether the overall price charged is excessive or not.[402] However, the second part of Article 102(a) TFEU which prohibits unfair trading conditions form being applied to consumers may be applied. In *Duales System Deutschland (DSD),* it was held that by making license fee conditional on the usage of the dominant firm's logo, the firm was imposing unfair commercial terms as the conditions are disproportionate. Therefore, an unfair trading condition may be imposed when a dominant firm does not adhere to the principle of proportionality.[403] The case of *AstraZeneca* established that a dominant firm seen to be using false information can be said to be imposing unfair trading conditions.[404]

In *SABAM*, it was concluded that clauses that required the authors, composers and publishers to transfer the management of their copyright works to the copyright collecting society *(SABAM)* are abusive as they impose unfair trading conditions on the members. The conditions were considered unfair due to the fact that they encroached upon the rights of the members without any necessary need but restricts the rights of the artists.[405] Similarly, in *GEMA*, it was held that clauses in collecting society's statutes need to fall within the test of absolute necessity in order to be termed fair.[406] In the case of *Telemarketing*, the CJEU held that an abuse would be found where a dominant entity reserves to itself or its subsidiary any ancillary activity which may be carried out by another undertaking without any necessary justification.[407] These cases

[400] ibid [49] and [58].
[401] ibid [56].
[402] Mariateresa Maggiolino, 'The Antitrust relevance of Granular Versioning', in Rosa Maria Ballardini, Petri Kuoppamäki, Olli Pitkänen (eds.) *Regulating Industrial Internet Through IPR, Data Protection and Competition Law* (Wolters Kluwer, 2019).
[403] Case C-385/07 P, *Der Grüne Punkt – Duales System Deutschland GmbH v. Commission*, ECLI:EU:C:2009:456.
[404] Case C-457/10 P, *AstraZeneca v Commission*, ECLI:EU:C:2012:770. Case dealt with misleading the patent office. However, transparency is one of the principles that has been inferred from this case.
[405] Case C-127/73, *Belgische Radio en Televisie and société belge des auteurs, Compositeurs et éditeurs v. SV SABAM and NV Fonior*, ECLI:EU:C:1974:25.
[406] GEMA Statutes Commission Decision (Case IV/29.971) 82/204/EEC [1982] OJ L94/12 [36].
[407] Case 311/84, *Centre Belge d'Etudes de Marche-Telemarketing (CBEM) v SA Compagnie Luxembourgeoise de Telediffusion (CLT) and Information Publicite Benelux (IPB)* [1985] ECR 3261. The dominant firm reserved itself certain rights relating to television marketing.

established principles of proportionality (*DSD*), necessity (*Telemarketing, SABAM and GEMA)* and truthfulness (*AstraZeneca).*[408]

The application of this theory of harm to price personalization can be done by Competition authorities in cases where consumer data is used without their consent in order to price personalize. Such usage can be considered to breach the necessity and proportionality principles established in the abovementioned cases as carrying out price personalization using consumer data without their consent breaches general principles of EU law which are covered within consumer, data protection, and competition laws. The theory of harm can be similar to the one found by the CJEU in the *Facebook Germany* Decision where a breach of data protection laws was found to be incidental to a finding of an abuse of dominant position under Article 102 TFEU.[409] However, there would be a high error cost in case price personalization is prohibited and consumers end up worse with uniform prices. Therefore, it is likely that an objective justification could be argued by the defendant firm. Therefore, neither Article 102(a) nor Article 102(c) TFEU are well equipped to deal with price personalization due to limits in their scope.

The usage of Article 102(a) TFEU in dealing with cases relating to data collection will be considered in Chapter 3 of the thesis. The next section will consider a few relevant areas of law that may be able of more help than Article 102 TFEU in dealing with price personalization cases.

2.6 Usage of other legislations

To deal with price personalization, Bourreau et al. suggest the use of data protection (GDPR), consumer protection (Unfair commercial practices Directive that talks about misleading consumers) or anti-discrimination (Geo-blocking Directive) laws in the EU. They argue that competition law may be applicable when personalized pricing also leads to exclusionary effects

[408] Note that these will be considered again in chapter 3.
[409] See *Facebook Germany* CJEU Decision.

such as market foreclosure by a dominant firm through loyalty discounts but note that price personalization needs to be handled on a case-by-case basis due to the differing effects.[410]

2.6.1 Unfair Commercial Practices Directive and other Directives related to Consumer Protection

The relevant consumer protection legislations are those that concern contracts between consumers and traders such as the Consumer Rights Directive (CRD) 2011[411] and the Unfair Commercial Practices Directive (UCPD) 2005[412]. The Modernisation and Better Enforcement Directive (Omnibus Directive) 2019[413] brought in key amendments in the CRD by extending the Directive to digital contracts where personal data is provided by consumers to the firm in addition to providing obligations on firms to provide pre-contractual information including in the case of price personalization.[414] In order to assure transparency in instances of personalized pricing, Article 6 and 7 of the UCPD can be referred to which deal with misleading actions and omissions respectively. Not providing information regarding personalization can amount to misleading the consumer as the consumer then assumes that they are being offered a uniform price.[415] Under the CRD, the consumer also has a right to withdrawal within 14 days in case they are not happy with a personalized price provided by a firm.[416] This can act as a back up to the transparency requirements present in the UCPD.

The UCPD contains flexibilities in its provisions in order to accommodate vulnerable consumers under Article 5(3) UCPD which prohibits commercial practices that materially distort the economic behaviour of a clearly identifiable group of consumers. The UCPD can be used to mitigate the harm as it requires assessment of a particular practice from the perspective of an average member of a group.[417]The mental and physical infirmity of a person is a ground to consider a person as vulnerable which may include elderly consumers as it is widely accepted

[410] Marc Bourreau, Alexandre de Streel, Inge Graef, 'Big Data and Competition Policy: Market Power, personalized pricing and advertising', Project Report, CERRE (2017), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2920301.
[411] Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011.
[412] Directive 2005/29/EC of the European Parliament and of the Council of 11 May 2005.
[413] Directive (EU) 2019/2161 of the European Parliament and of the Council of 27 November 2019.
[414] ibid.
[415] Alexandre De Streel and Florian Jacques, Personalised pricing and EU law, 30th European Conference of the International Telecommunications Society (ITS): "Towards a Connected and Automated Society", Helsinki, Finland, (16th-19th June, 2019) 7-9.
[416] Ibid, Page 10.
[417] Natali Helberger, Frederik Zuiderveen Borgesius and Agustin Reyna, 'The Perfect Match? A closer look at the relationship between EU Consumer Law and Data Protection Law', (2017) 54(5) Common Market Law Review.

that mental disorders which may arise due to old age may limit the consumers' ability to make efficient purchasing decisions towards their benefit.[418]Some of the other grounds to consider a person or group vulnerable may be low income, low education or low social class which may allow a firm to influence them into buying their product.[419]

When data is used to discriminate between different users and different groups, Article 5(3) UCPD can be used to make sure that price discrimination leads to an economic benefit to a group if that group is seen to be a vulnerable group. This provision can be used to prevent online firms from exploiting consumers who have limited knowledge of how online markets work. Firms can target certain groups of consumers that are more vulnerable such as people above a certain age group or those from an area that is deprived of resources to educate themselves of the way firms market their products using big data which contains their personal information and may not be aware of ways to counter those practices such as by identity management techniques or voluntary disclosure selective data.

For the UCPD to be applicable, a practice needs to be considered unfair in nature. When consumers are not aware of pricing techniques of firms, they fall prey to price increases as a result of personalization in some cases. This may be considered unfair as it may fall under Article 6 UCPD which deals with misleading actions. If the consumer is informed that they are receiving a personalized price and the consumer consents for it, the practice cannot be deemed unfair.[420] It may therefore be in the interest of the firm and the consumer for online firms to be more transparent regarding price personalization.

2.6.2 General Data Protection Regulation (GDPR)[421]and the Digital Markets Act (DMA)[422]

In order for personalization of any form to occur, one indispensable aspect that is required is information and data on users. It is only by using data on users that firms can discriminate between the users. This makes legislation that deal with data protection relevant in these cases such as the GDPR and DMA. The GDPR contains rules regarding transparency as well as rules on how data of consumers should be used. The principle of data minimisation (Article 5) states

[418] Bram Duivenvoorde, 'The protection of vulnerable consumers under the Unfair Commercial Practices Directive', (2013) 2(2) Journal of European Consumer and Market Law 69, 79.
[419] ibid, 78-79.
[420] See De Streel and Jacques (n 348) 5.
[421] Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 September 2016.
[422] See DMA (n 27).

that the data of consumers should only be used for the stated purpose which makes transparency regarding price personalization an automatic obligation in case it is a use that goes beyond the initial purpose for which the data was extracted.

The provision that directly deals with personalization and profiling in the GDPR is Article 22 of the GDPR which states that 'The data subject shall have the right not to be subject to a decision based solely on automated processing, including profiling, which produces legal effects concerning him or her or similarly significantly affects him or her.' Under Article 22(1) GDPR and under Article 22(3) GDPR, the data subject can contest the decision after obtaining information regarding the decision.[423] In case a user is profiled using inaccurate information on them, they have a right to rectify the data under Article 16 GDPR.[424]

With regard to the combining of data from different sources, under Article 5(2) of the DMA, a gatekeeper firm defined under Article 3 of the proposed Act is prohibited from combining data sourced from core platform services with personal data from any other services or third-party services unless the user explicitly provides consent for it. Consent is defined under Article 4(11) GDPR. Under Article 30, the DMA has also proposed fines of up to 10 percent of the company's worldwide annual turnover creating a high penalty for non-compliance with obligations set in Articles 5 and 6 which was not possible with previous consumer protection and data protection legislations.[425]

Borgesius and Poort argue that data protection law can be applicable to personalized pricing as it relates to processing of data under Article 4 of the GDPR and Article 5 refers to lawful processing which requires transparency. The consumers active consent is a requirement under the GDPR's various provisions which would make price personalization without their consent illegal. Article 22 of the GDPR refers to far reaching effects of automated decisions that significantly affects the consumer. In case of an increase in price due to personalization, the provision can be raised as a defence. Therefore, price personalization that leads to a lower price may be accepted from a regulation point of view and any increase in price compared to a reference price can be considered illegal.[426] The trust of the consumer is also an important aspect that needs to be considered. It has been seen in studies that consumers are averse to price discrimination.[427] Transparency requirements with respect to personalization and regulation

[423] See De Streel and Jacques, (n 348) 13-14.
[424] ibid 12.
[425] The GDPR allows fines of up to 4 percent Worldwide turnover under Article 83.
[426] ibid 355-363.
[427] J Turow, J King, C.J Hoofnagle, A Bleakley, and M Hennessy, 'Americans Reject Tailored

against price increases due to price personalization can keep the trust aspect intact. Transparency with respect to personalization is an important aspect as consumers are averse to situations that they may potentially regret later.[428] That is why Borgesius and Poort argue that firms should inform consumers of cookies being embedded in the operating systems and also regarding the use of their personal data for price tailoring.

2.6.3 Anti-Discrimination legislations

There are many EU legislations that uphold non-discrimination as a principle such as the EU Charter, Geo Blocking Directive, Race Directive and Article 18 of the TFEU. In order for a discrimination to not violate this principle or any related Directive, it should be to pursue a legitimate aim and the discrimination needs to be necessary to reach this aim.[429] Therefore, it is important for price personalization to not be indirectly based on a restricted category covered by one of the Directives such as race, sex, ethnic origin or directly on Nationality. If a pricing algorithm uses any of the above metrics to discriminate between users, the practice may be prohibited.[430]

However, an important consideration that is to be kept in mind while applying anti-discrimination legislation is one regarding the economic benefit to those from lower income groups. For example, if an algorithm discriminates between groups based on their ethnicities where the people from a certain ethnicity belong to a lower income group, then in such a case the discrimination would result in them getting a lower price while those from a different ethnicity who are considered to part of a higher income group receive a higher price. While it is possible that not everyone from an ethnic group in an area is from a lower income group, the discrimination would largely be based on that groups overall WTP rather than on the basis of other social aspects. The point here is that discrimination based on race or ethnicity in such a

Advertising and Three Activities that Enable it,' (2009). http://ssrn.com/abstract=1478214
[428] Graham Loomes and Robert Sugden, 'Regret theory: an alternative theory of rational choice under uncertainty' (1982) 92(3680 The Economic Journal 805.
[429] See De Streel and Jacques (n 348) 17-19.
[430] ibid.

case may be able to provide economic benefits to people of lower income and create a positive redistribution effect.[431]

In such a case where there is an objective benefit that arises out of discriminating based on race or ethnicity, such a discrimination can be justified if under Article 2(2)(b) of the Race Directive[432] if the discrimination has a legitimate aim and the means to achieve the aim are appropriate and necessary. Similarly, such objective justification is also available under Article 2(1)(b) of the Gender Directive[433] where discrimination on the basis of sex may be justified based on the same conditions as of those in the Race Directive.[434] These provisions can allow consideration of instances when an economic benefit may arise as a result of discrimination based on prohibited grounds.

In the EU single market, if place of stay or country of residence is used as a ground for discriminating between consumers, the Geo-blocking Regulation[435] may be applicable. Geo-blocking occurs when a seller limits or blocks access to their online interfaces to consumers based on their nationality, residence or place of establishment. This is prohibited under Article 3(1) of the Regulation. This prevents personalization based on the location of the user unless the user explicitly consents towards a different online interface than the trader's regular online interface under Article 3(2) of the Regulation. This is a step further from Article 20 of the Services Directive[436] which prohibited discrimination based on the service recipient's nationality or residence.[437]

2.6.4 Omnibus Directive

In 2019, the Omnibus Directive[438] was enacted which consisted of amendments being made to many past Directives and included a provision on personalized pricing making it the first EU legislation to tackle the practice directly. Article 4(4) of the Omnibus Directive amends Article 6(1) of the Consumer Rights Directive and includes that consumers be informed in a clear and

[431] See OECD Report, (n 170) 40-41.
[432] Council Directive 2000/43/EC of 29 June 2000.
[433] Directive 2006/54/EC of the European Parliament and of the Council of 5 July 2006.
[434] See De Streel and Jacques (n 348) 19-20.
[435] Regulation (EU) 2018/302 of the European Parliament and of the Council of February 2018.
[436] Directive 2006/123/EC of the European Parliament and of the Council of 12 December 2006 on services in the internal market.
[437] See Bourreau et al. (n 343) 46-47.
[438] Directive (EU) 2019/2161 of the European Parliament and of the Council of 27 November 2019 amending Council Directive 93/13/EEC and Directives 98/6/EC, 2005/29/EC and 2011/83/EU of the European Parliament and of the Council as regards the better enforcement and modernisation of Union consumer protection rules.

comprehensible manner where "...the price was personalized on the basis of automated decision-making" under the new Article 6(1)(ea) CRD provision. In its recital, the Directive seeks to differentiate 'dynamic' or 'real-time' pricing which are affected by market demands from personalized pricing and seeks to prevent individuals from being profiled through automated decision making.[439]

Automated decision making in the Directive may seem to cover personalization on the basis of affiliation of consumers to certain groups, based on past online behaviour, or also based on aspects such as age, demography and other aspects that may be available online.[440] The ambit of coverage would include both discounts and higher prices offered to consumers which makes Article 6(1)(ea) CRD a comprehensive provision when it comes to protecting the rights of consumers in terms of price personalization only taking place when they have been clearly informed. However, even if consumers are provided with the information that is used to personalize prices, they might not be able clearly determine where personalization would lead to higher or lower prices for them.[441]

The evaluation of whether personalized pricing is more beneficial to a consumer may be a matter of speculation based on Article 6(1)(ea) CRD as the seller only has the obligation to inform the consumer that the price was personalized. The process of personalization does not need to be shared with the consumer which is omitted from the Omnibus Directive. However, the provision does satisfy issues relating to consumer trust which was one of the main concerns that were noted in relation to price personalization being conducted.[442] Using this legislation may be the way forward in terms of price personalization cases.

2.6.5 Section summary

Consumer protection legislations are available for any harm that occurs to consumers as a result of a practice that may be considered unfair under the UCPD or violate the rights of consumers under the CRD. Some of the harms that can arise out of price personalization that can be dealt by these directives are extraction of consumer data without their active consent, not informing

[439] ibid Recital [45].
[440] Peter Rott, Joanna Strycharz, and Frank Alleweldt, 'Personalised Pricing', European Parliament's Committee on Internal Market and Consumer Protection, November 2022, 29.
[441] ibid 30-32.
[442] See Borgesius and Poort; See also BEUC.

consumers that their data is used for personalization, and also misleading consumers regarding prices for a product. When it comes to data extraction, the GDPR can act as more suitable legal avenue to be used as it specifically deals with how personal data of a consumer ought to be processed under Article 5 GDPR. Price personalization can also be dealt with directly using the GDPR in case of a price increase as a result of a consumer's personal data being used for discrimination. When it comes to the legitimacy of the grounds that are used to discriminate between a group of users, Anti-Discrimination Directives such as the Geo-Blocking, Gender and Race Directives(s) provide strict guidelines on the parameters that may be considered illegal for discrimination. The only way of discriminating on those parameters can be to show an economic benefit arising from such an act. Compared to Article 102(c) TFEU, Consumer Protection Directives (especially the Omnibus Directive) seem to be more suitable in assessing price personalization.

2.7 Conclusion

This chapter started off by considering whether price personalization is a conduct that occurs widely currently. It was found that there is evidence of its occurrence in some studies while others did not find such evidence. Due to its occurrence in some studies and the possibility of it occurring more in the future with firms being able to collect more information on users to better the personalization, this chapter considered the use of competition law in cases relating to price personalization and found that the two may not be a suitable match considering the ambiguous effects of price personalization on consumer welfare. In cases where there is no increase in total welfare, competition law may play a role in prevent price personalization, but this is not possible under the current standard of assessment in the EU under Article 102(c) TFEU. Other legislations discussed in Section 2.6 may be more relevant to price personalization cases.

The chapter contributed to the current literature by providing a unique perspective on the application of Article 102(c) to price personalization by considering the use of primary-line and secondary-line injury cases separately. The chapter found that Article 102(c) can apply to price personalization which led the chapter to consider whether it should be applied to these cases. To find this, the chapter engaged with social norms that play a role in price discrimination considerations to see whether this would be an acceptable practice from a

consumer's point of view. The chapter argued that a disclosure regime may allow a firm to carry put price discrimination which may be beneficial to consumers as there is mostly an increase in output due to price discrimination. By gaining consumer trust, the procedural fairness of price personalization can be maintained which will allow the market to function sustainably.

The distributional effects of personalized pricing which allow newer consumers to enter the market at the cost of older consumers need to be studied more in order to assess whether poorer consumers benefit from richer consumers being charged a higher price. This would allow for a redistributive effect and one that reduces inequality. Evidence proving such redistribution as a result of price personalization can pave the way for even lesser regulation and legislative actions. The reason price personalization is possible is because of data being collected on consumers. In some cases, the way that consumer data is collected by a dominant firm may be exploitative in nature due to the superior bargaining power of the dominant firm. This aspect will be studied in Chapter 3 of the thesis.

CHAPTER 3: Excessive data collection: Relevance and use of Article 102(a) TFEU and other EU legislations

3.1 Introduction

This chapter will consider the act of data collection from users by online platform firms that provide their services to them for no monetary price or 'free' from an EU perspective. This chapter provides an overview of how data is collected in the first place by dominant online firms, which is then used to engage in personalized pricing between consumers and also provide personalized content and advertising. This chapter is mainly concerned with two types of online platforms: 1) Social media platforms, and 2) Search engine platforms. In the chapter, they may be referred to as free online platforms or zero-price online platforms when referred to jointly due to their nature of seeming to be free to consumers.[443]

The main aim of the chapter is to assess whether consumers are exploited through unfair data collection by online firms which is achieved using complicated data collection and privacy policies. The focus of the chapter is also on data collection by dominant free online platforms, mainly Google (in the search engine market) and Facebook/Meta (in the social media market). The chapter then asks the question whether Article 102(a) TFEU may be applicable to such cases involving dominant free online platforms. The chapter also considers the joint use of other legal regimes within the EU such as consumer protection and data protection in addition to considering whether unfair data collection can be dealt with using the DMA alone.

One of the main contributions of the chapter is to consider the use of unfair trading conditions within Article 102(a) TFEU in cases involving inaccurate search results presented by a dominant search engine platform. This adds to the exclusionary harm to competitors that is considered in the *Google Shopping* case by the Commission and General Court in their assessment. The chapter also contributes to the current literature on excessive data collection by dominant free online platforms by suggesting the joint usage of unfair trading practices and unfair pricing under Article 102(a) TFEU along with EU legislations such as the General Data Protection Regulation (GDPR), Unfair Commercial Terms (UCT) Directive, Unfair Commercial Practices (UCP) Directive, and the Consumers Rights Directive (CRD). For this, the chapter provides a detailed account of the literature on this area and critically evaluates the

[443] See Newman; See also Evans 2019.

contrasting views on the application of Article 102(a) TFEU in such cases. Prior to that, the chapter draws from past case laws decided by EU Courts relating to Article 102(a) TFEU up until two recent cases concerning free online platforms that has led to new theories of harm being identified with the scope of Article 102 TFEU.

The chapter extends the current literature on whether excessive data collection can be assessed using Article 102(a) TFEU following the judgement of the Bundeskartellamt (German competition authority) and the two appellate courts (High Court of Dusseldorf and German Supreme Court),[444] to the opinion of Advocate General (AG) Rantos in response to the preliminary reference made by the High Court of Dusseldorf,[445] and finally to the decision of the CJEU.[446] The chapter concludes by arguing that Article 102(a) TFEU can apply to cases relating to excessive data collection if there is a breach of the GDPR, or Consumer Protection Directives that deals with consumer exploitation in the EU.

On 14 February 2022, and senior adviser to the Financial Conduct Authority (FCA), Liza Gormsen, initiated a class action suit (under Section 47 B of the UK Competition Act, 1998) against Facebook/Meta in front of the Competition Appeal tribunal (CAT) for allegedly abusing its dominant position by imposing unfair prices or unfair trading condition on users infringing Article 102 TFEU and Section 18 of the UK Competition Act, 1998.[447] The alleged theory of harm in the suit consists of: 1) making access to Facebook contingent on users accepting its terms and conditions which left users with no choice or alternate option but to pass on their data to the dominant platform, 2) offering an unfairly high 'price' to users for providing access to Facebook's social network, and 3) providing complicated terms and conditions of acceptance to users and failing to explain to users how much data they are giving up.[448] The CAT rejected the suit and ordered the class to pay costs.[449] This case will be further discussed in the chapter as it showcases a way of not using competition law to tackle unfair data collection by dominant online platforms.

This makes it the only case other than the one initiated by the Bundeskartellamt to consider the use of Article 102 TFEU in cases relating to data collection. Unlike the German case, where a

[444] See below 3.3.
[445] Case C-252/21, *Meta Platforms Inc., formerly Facebook Inc., Facebook Deutschland GmbH v Bundeskartellamt*, Opinion of Advocate General Rantos delivered on 20 September 2022.
[446] Case C-252/21, *Meta Platforms v Bundeskartellamt*, EU:C:2023:537.
[447] *Dr Liza Lovdahl Gormsen v Meta Platforms, Inc. and Others*, [2023] CAT 10, CASE NO. 1433/7/7/22.
[448] CASE NO. 1433/7/7/22, NOTICE OF AN APPLICATION TO COMMENCE COLLECTIVE PROCEEDINGS UNDER SECTION 47B OF THE COMPETITION ACT 1998, 2.
[449] See G*ormsen v Meta* [57-62].

fine or financial penalty was not sought, this collective action suit was initiated to claim damages between 2016-2019 for the abuses stated above.[450] While the suit is similar to the German one in terms of alleging that choice for users was denied which can constitute an unfair trading condition, the suit is different in contending that Facebook also offered a low purchase price for user data. This chapter seeks to answer whether unfair pricing or unfair trading conditions can be used in cases of excessive data collection such as *Gormsen v. Meta.*

The chapter will be divided into seven sections including the introduction and conclusion. Section 3.2 of the chapter show the need to study this area by considering the role of data collection when 'free' services are provided by online platforms.[451] Section 3.3 will discuss the *Facebook* case and *Google Shopping* case to understand the link between competition law and excessive data collection. Section 3.4 will consider the use of unfair pricing case laws to cases related excessive data collection. Section 3.5 will consider whether unfair trading conditions would be a better fit than unfair pricing when excessive data collection is concerned. Section 3.6 proposes the optimal manner of assessing unfair data collection by dominant platforms by considering the use of other legislations. Section 3.7 will conclude.

3.2 Importance of data and relevance of data collection policies in the context of 'free'

The role of data in the changing dynamics of markets from brick-and-mortar markets to digital ones has been immense and contributes to the extreme returns to scale in digital platforms.[452] While brick and mortar markets have been largely restricted to an exchange of money for products or services, digital markets have changed this as data has become a commodity and has been used as a tool of exchange by consumers, knowingly or unknowingly.

[450] ibid, 5; See also Kirstin Ridley, 'Facebook faces $3.2 bln UK class action over market dominance', (14 January 2022), Reuters, , https://www.reuters.com/article/tech-antitrust-facebook-idCNL1N2TT1ZZ. The suit is proposed to have 45 million members with each member to get 50 pounds if the suit were successful.
[451] Following up from Section 1.2.2 of Chapter 1.
[452] See EU Digital Report (n 11) 19-24.

To understand fully whether excessive data collection can be considered exploitative, it is important to separate every aspect of the transaction and also understand the significance of the 'free' service provided by online platforms like Facebook/Meta and Google in terms of convincing end consumers (there are also business users who pay to use the service) to share their data in return for their service. It is accepted to an extent that consumers are provided better services due to data combination and more amounts of data being provided to the platform.[453] If they make them better off, there is no exploitative aspect to consider, but if they make consumers worse off, then it opens up the transaction to scrutiny from consumer protection laws and also competition laws if it is due to the unilateral actions of a dominant firm. The size of these platforms is also a major consideration as they have the ability to charge monopoly rents in terms of demanding increasing amounts of data from consumers or demanding users to agree to their data being combined on different platforms (example Facebook, Instagram and WhatsApp).

An online firm such as Facebook or Google which provides non-business end users their service for free, expects to obtain as much information as possible from them. This is because the advertisers fund the platform's existence and they are interested in obtaining information on consumers which they can then use to target them which includes obtaining even granular data sets as noted by the Bundeskartellamt (German Competition Authority/Federal Cartel Office of Germany) in the case of *Facebook.*[454]

3.2.1 The valuation of data by consumers: The existence of the privacy paradox

An important aspect to consider in this chapter is whether consumers actually value their data as the chapter fundamentally suggests that consumer data should not be collected by online platforms unless they have actively allowed it. This assumes that consumers value their data and would be willing to take certain measures for that data to not be misused by online platforms.

In some cases,[455] consumers allow the taking of their data as they do not value it very highly or they do not realise that the value of the service being obtained does not match the value of

[453] See Furman Report (n 13) 5.
[454] Bundeskartellamt, decision no. B6-22/16 of Feb. 6, 2019, [381].
[455] Patricia A. Norberg, Daniel R. Horne, and David A. Horne, 'The Privacy Paradox: Personal Information Disclosure Intentions versus Behaviors', (2007) 41(1), Journal of Consumer Affairs, 100, 126.

the amount of the information being shared.[456] Others have shown that consumers value data for very little and would be willing to provide their data for very small sums of money.[457] The role of default options have been noted to influence consumer choice as seen in a study by Acquisti et al. where the default lower privacy option was preferred by most but when the options were switched to a higher privacy default option,[458] majority of consumers chose to keep their privacy.[459]

In one study, consumers have tended to sell their personal data for certain sums of money (less than 20 Euros).[460] More recently, consumers were noted to show interest in protecting certain types of data by paying positive sums of money. [461] It was found that different data types of data were valued with different monetary sums which informs this chapter that not all types of personal data can be assigned similar values if data were to be valued for money.[462]

The privacy paradox occurs when consumers continue to disclose their information even though they might feel concerned about their privacy. This behaviour is similar to smokers who want to quit smoking but continue to smoke, though the consequences are very different in the two cases. Recently, it was observed that the privacy paradox does exist but is accompanied by laziness with a higher tendency for decisions relating to low privacy protection being taken by lazy people.[463]

The default 'opt-in' option has the ability to persuade consumers to stick to the system of providing their data in return for the platform's service due to the nature of the service where it seems to the consumer that they aren't paying anything monetarily or they have to incur a cost by spending time on opting out. It may also be that a user may consent to harvesting of data without knowing the complete consequences of that action as a result of the default opt-in

[456] This point will be further investigated in part three of the chapter.
[457] Jens Grossklags and Alessandro Acquisti, 'When 25 Cents is Too Much: An Experiment on Willingness-To-Sell and Willingness-To-Protect Personal Information', Sixth Workshop on the Economics of Information Security (2007).
[458] Alessandro Acquisti, Leslie K. John, and George Loewenstein, 'What is Privacy Worth?' (2013) 42(2) The Journal of Legal Studies 249, 249-274.
[459] ibid 265-266.
[460] Volker Benndorf and Hans-Theo Normann, 'The Willingness to Sell Personal Data' (2018) 120 Scandinavian Journal of Economics 1260, 65.
[461] Anya Skatova, Rebecca McDonald, Sinong Ma and Carsten Maple, 'Unpacking Privacy: Willingness to pay to protect personal data' (2019) PsyArXiv.
[462] ibid 31-32.
[463] Jakob Wirth, Christian Maier, Sven Laumer, Tim Weitzel, 'Laziness as an explanation for the privacy Paradox: a longitudinal empirical investigation' (2022) 32(1) Internet Research 24, 54.

option.[464] The question also arises if consumers prefer convenience over privacy protection, is intervention actually required.[465] This chapter argues that the choice made by consumers may be one that is due to lack of knowledge of what they are consenting for and that the scope of Article 102 TFEU can be extended to situations where such policies are initiated.

The decision-making ability of consumers can also seem to be incapacitated due to the continuous strands of influence which prompt the user to follow the suggestion of the platform, in a way allowing the platform to make the decision for the consumer.[466] Some suggest that the consumer-platform relationship resembles a 'walled garden' due to the control imposed on consumer decision-making by the platform.[467] The platform makes the users dependent on its service by hooking them and gradually incapacitate their decision-making ability which goes unnoticed by customers.[468] This chapter argues that the privacy paradox is a result of the incapacitation of the ability of consumers to actively choose to deny dominant platform firms their data. One of the reasons that this transaction continues to take place is due to the notion of 'free' influencing consumer perception.

3.2.2 Consumer response to free goods: Similar concepts to zero-price platforms

One of the interesting and related aspects relating to the privacy paradox is the notion of free goods which facilitates the exchange of data for the personalized service provided by a search engine (in terms of results) and a social media platform (in terms of content). Free goods are provided by firms in order to increase their user base or to lock-in consumers into their product or service network by offering a free product or service initially. When a product or service is provided for 'free', the firm needs to have a way of monetizing it. In the case of digital

[464] See Economides and Lianos (n 396) 1–10. The market failure approach is suggested in their paper as it can provide a unified approach to competition law cases concerning data protection and privacy as a finding of market failure can be grounds for competition law enforcement; See 5-8 for their model.
[465] Katharine Kemp, 'Concealed data practices and competition law: why privacy matter' (2020) 16(2) European Competition Journal 628, 653.
[466] Rupprecht Podzun, 'Digital ecosystems, decision-making, competition and consumers – On the value of autonomy for competition', SSRN, (19 March 2019) 1-28, Available at SSRN: https://ssrn.com/abstract=3420692 or http://dx.doi.org/10.2139/ssrn.3420692.
[467] Philip Marsden and Rupprecht Podzun, 'Restoring Balance to Digital Competition – Sensible Rules, Effective Enforcement' (2020) Konrad-Adenauer-Stiftung 5.
[468] ibid.

platforms, the price is the user's attention or information.[469] Zero-price goods exist in non-digital markets as well. Newspapers are an example. Platform firms work by charging one side of the platform a fee for usage and allow the other side to use it for no monetary fee or 'free'. The platform effectively cross subsidizes one side of the platform by charging the other side for both sets of users.[470] Platform firms determine this by seeing which side is more elastic (responsive to price changes). For example, the advertisers may be bound to stay with the platform despite minor price increases compared to users who may not use the platform if they are charged a monetary price.

A free product is always linked with another product either in the same market or a related one and it makes money from the companion product. A product is provided for free such as in the case of online search where the search function does not cost anything monetarily. The related market is on the advertising side where the advertisers are charged a monetary price by the platform for them to either display their advertisement, or to collect the data of the users.[471]

Free goods have historically been used to sell a complement good or to lock in customers.[472] The 'razor and blade' example is one of the most renowned examples of when a free good was used to sell a complement good.[473] This is analogous to tying two products together by offering a discount on the joint purchase of the products. In platform markets, this lock-in effect may be seen in the form of default 'opt-ins' which tend to make it hard to choose the non-default option of opting out.[474] This seemingly 'free' option is driven by the tendency of consumers to choose the option with the lowest monetary cost (zero) even if one with higher quality and overall value costs any amount above zero.[475] It was also shown in the past that zero-price

[469] Daniel L Rubinfeld and Michal Gal, The Hidden Costs of Free Goods: Implications for Antitrust Enforcement, Antitrust Law Journal, 2016 80(401) 521.
[470] See Chapter 4 for analysis of cross-subsidization in platform markets in relation to predatory pricing.
[471] David S. Evans, 'The Antitrust Economics of Free', John M. Olin Program in Law and Economics Working Paper No. 555 (2011) 12-17.
[472] Uriel Spiegel, Uri Benzion, and Tal Shavit, 'Free Product as a Complement or Substitute for a Purchased Product—Does it Matter?', (2011) 2(2) Modern Economy
[473] Randal C Picker, The Razors-and-Blades Myth(s), University of Chicago Law & Economics, Olin Working Paper No. 532, (September 13, 2010). The paper argues that giving away razors for low to zero price needs to be recouped by blade sales.
[474] Jan Bouckaert and Hans Degryse, 'Default Options and Social Welfare: Opt In versus Opt Out', Journal of Institutional and Theoretical Economics (JITE) (2013) 169(3) 468.
[475] Kristina Shampanier, Nina Mazar and Dan Ariely, 'Zero as a Special Price: The True Value of Free Products', (2007) 26 Marketing Science 742; See also Ahmed Driouchi, Youssef Chetioui and Meryem Baddou, 'How zero price affects demand?: experimental evidence from the Moroccan telecommunication market', (20 July 2011), MPRA Paper No. 32352, where it was found that zero-priced products are chosen over ones that provide better value to consumers in the Moroccan telecom sector.

goods tend to increase overall demand in terms of consumers but reduce overall quantity demanded.[476]

3.2.3 Efficient use of data collection policies by digital platform firms

In a New York Times (NYT) study carried out in 2019, 150 privacy policies were considered including those by online platform firms like Facebook, Google, Airbnb, Uber and several others and found that they are aimed at protecting companies than to informing users.[477] It was found in this study that it took slightly more than the average amount of time to read Facebook's privacy policy (18 minutes) and when it was tested on the complexity of the text, the privacy policy was found to require an individual to be successful in college using an education company's assessment technique known as the 'lexile' test while the online lodging marketplace, 'Airbnb' scored as one of the longest, most unreadable and vague policy of the 150 selected websites. Google's policies had made a U-turn in 2018 after the implementation of the GDPR which required privacy policies to be clear and concise and were seen to have made their policies less time consuming. The assessment is that these documents were created for lawyers and not for consumers.[478]

These kinds of policies allow online firms to utilise consumer inertia to benefit from data collection in a manner in which consumers may not be fully aware of what they are giving up. The NYT study shows that there was a tendency to make a U-turn on data collection policies after tighter regulation in terms of the GDPR. Therefore, there are clear benefits in terms of preventing certain type of platform conduct by imposing an effective regulatory system. The DMA could add to this by having created a new legal regime that is directed exactly at online platforms such as Meta/Facebook and Google.

In a 2014 Merger decision relating to Facebook (now Meta) and Whatsapp, the Commission explicitly considered the role of potential data combination by the newly formed merged entity

[476] Dan Ariely, Uri Gneezy and Ernan Haruvy, 'Social Norms and the Price of Zero, Journal of Consumer Psychology', (2018) 28(2), Special Issue: Marketplace Morality 180, 180-191.
[477] Kevin Litman-Navarro, 'We Read 150 Privacy Policies. They Were an Incomprehensible Disaster.', (The New York Times, The Privacy Project, 12 June 2019), https://www.nytimes.com/interactive/2019/06/12/opinion/facebook-google-privacy-policies.html?mtrref=www.google.com&gwh=6DA34173EB0BED283BD4BFEAF8CC5D24&gwt=regi&assetType=REGIWALL.
[478] ibid.

as one of its main concerns for allowing the merger.[479] However, the Commission allowed the merger to go ahead by deciding that such data collection can only be harmful for competition if the advertising market can be hampered.[480] The Commission also considered the privacy policy of Whatsapp which did not allow such combination at the time of the merger.[481] However, in 2016, the merged firm announced that user information from the two platforms will be linked leading to a fine of 110 million Euros for providing false information about their privacy policies during the merger proceedings.[482] Decisions such as these make an impact on the privacy policy selection by dominant platform firms. Due to the recency of the GDPR, competition authorities still play a role in being able to stop dominant firms from exploiting consumers.

Kate O'Flaherty, an award-winning privacy journalist, has documented Facebook/Meta's changing privacy policy over a period of time and has found that Facebook/Meta tends to release contradicting privacy policy stances as mentioned.[483] In 2021, it was also noted that Facebook's data collection occurs post account deactivation.[484] This issue escalated when whistle blower documents in 2022 suggested that Facebook lacks control over the data it collects from users in the first place before considering its misuse.[485] In response to such allegations and questions being raised by users and regulators, on 26 May 2022, the Chief Privacy Office of Facebook/Meta published a blog stating the changes that it is making with respect to how it collects data from users and shares with third parties.[486] However, the move has been termed 'technology realpolitik'[487] since it shifts the burden back on users to be more vigilant in accepting the terms now that the firm.[488] A question that arises at the end of this

[479] *Facebook/Whatsapp*, Case No COMP/M.7217, [167].
[480] ibid, [187].
[481] ibid, [185]. Facebook informed the Commission of its inability to establish reliable automated matching between Facebook and Whatsapp users during the filing of the merger between the two.
[482] See EC *Facebook* Press Release.
[483] Kate O'Flaherty, 'Delete Facebook—How To Quit Your Facebook Account Now, Forbes', (Forbes-Cybersecurity, 6 November 2021), https://www.forbes.com/sites/kateoflahertyuk/2021/11/06/delete-facebook-how-to-quit-your-facebook-account-now/.
[484] Kate Kaye, 'Why Facebook keeps collecting people's data and building their profiles even when their accounts are deactivated', (Digiday, 28 October 2021), https://digiday.com/media/why-facebook-keeps-collecting-peoples-data-and-building-their-profiles-even-when-their-accounts-are-deactivated/.
[485] Kate O'Flaherty, 'Facebook's New Nightmare—Is It Time To Delete Your Account?', (Forbes, Cybersecurity), 28 April 2022, https://www.forbes.com/sites/kateoflahertyuk/2022/04/28/facebooks-new-nightmare-is-it-time-to-delete-your-account/.
[486] Michel Protti, 'Here's What You Need to Know About Our Updated Privacy Policy and Terms of Service', (Meta, 26 May 2022), https://about.fb.com/news/2022/05/metas-updated-privacy-policy/.
[487] BBC, Facebook owner Meta updates its privacy policy, 26 May 2022, https://www.bbc.co.uk/news/technology-61574207.
[488] Kate O'Flaherty, *Facebook's New Privacy Policy—What You Need To Know*, Forbes, Cybersecurity, 27 May 2022, https://www.forbes.com/sites/kateoflahertyuk/2022/05/27/facebooks-new-privacy-policy-what-you-need-to-know/.

section is whether Article 102 TFEU can play a role in correcting the vague data collection policies of dominant online platforms that result in data combination and data collection without active consent from users.

3.3 Cases relating to data collection and privacy concerning Article 102 TFEU

This section will consider some recent cases that pertain to excessive data collection. The lessons learnt from these cases will help determine whether Article 102 TFEU has a role to play in such cases. Section 3.3.1 will discuss the *Facebook Germany* case which was the first case to consider the role of competition within data protection. This will lead to a discussion on the role of data protection and other relevant legislations in data collection cases. Section 3.3.2 will consider the *Google Shopping* case and consider a missed opportunity in the case in relation to considering the use of an exploitative abuse in the assessment. This is the first time this has been considered in detail apart from a mention in a previous report.[489]

3.3.1 Lessons from the Facebook Germany case on using Article 102 TFEU

The case of *Facebook* in Germany is a landmark case in many ways as it paved the way for the application of competition laws to cases of exploitative abuse in data related markets. The inter-institutional dispute between the Bundeskartellamt, High Court of Dusseldorf and German FCJ provides interesting insights into the application of competition law to data extraction cases.[490] The Decision of the CJEU allowing the use of Article 102 TFEU in cases where a breach of data protection rules occurs can be considered a landmark decision as such a decision had not been passed earlier.

In February 2019, the Bundeskartellamt passed a decision prohibiting Facebook/Meta from combining user data from different sources and found it to have abused its dominant position due to the lack of effective consent provided by its users. The Bundeskartellamt noted that the requirement of processing large amounts of user data for an advertising-funded platform to

[489] See Marsden and Podzun (n 467) 42.
[490] Anne C. Witt, 'Excessive Data Collection as a Form of Anticompetitive Conduct: The German Facebook Case', (2021) 66(2) The Antitrust Bulletin 276, 276-307.

efficiently run its business model does not outweigh the interests of the consumer and that collecting data outside the sphere of the social network platform went against consumer interests.[491] The decision considered the breach of provisions of the GDPR to amount to an abuse of dominant position under Section 19 GWB (German Competition Act) which is the German equivalent of Article 102 TFEU in accordance with Article 3 of Reg. 1/2003.[492] With respect to the application of Article 102 TFEU to the case of *Facebook* to a data protection breach, the Bundeskartellamt clarified that in previous German cases (*VBL-Gegenwert* cases),[493] the Federal Court of Justice of Germany allowed the finding of an exclusionary abuse outside the confines of competition law.

The Bundeskartellamt noted in its decision that the lack of transparency is exacerbated by the existence of market power.[494] Due to the existence of Facebook's dominant position and market power, consumers do not have a chance to provide their consent freely.[495] On appeal, the High Court of Dusseldorf rejected the Bundeskartellamt's decision as they did not see the relation between market power and the alleged abuse or proof of anti-competitive effects by granting a temporary injunction.[496] As will be discussed in section 3.4.1, the non-rivalrous nature of data makes the application of excessive or unfair pricing in cases of excessive data extraction inapplicable. According to one author, restricting data collection could also lower the utility of consumers as the firm may have to be less innovative.[497] While quality of services may benefit from more information being collected on users, carrying out the data collection in a manner that does not derive consumer consent clearly is the main problem. Further, others have reservations regarding the way data is collected by online platforms as that increases the firms' ability to predict user behaviour leading to a superior bargaining position.[498]

Gormsen and Llanos note that Meta/Facebook used a two-stage strategy to achieve dominance in the social media market.[499] The first stage involves meta/Facebook having committed to a privacy protection regime which helped it gain consumer trust compared to the failing

[491] See *Facebook* Bundeskartellamt.
[492] ibid [914].
[493] FCJ, 6 November 2013, case no KZR 58/11, *VBL-Gegenwert* I; FCJ, 24 January 2017, case no KZR 47/14, *VBL-Gegenwert II*.
[494] See Facebook Bundeskartellamt [963].
[495] ibid [385].
[496] OLG Dusseldorf, Order of Aug. 26, 2019, Case VI-Kart 1/19 (V); See also Witt 292-295.
[497] Justus Haucap, 'Data Protection and Antitrust: New Types of Abuse Cases? An Economist's view in light of the German Facebook Decision', (2019) CPI Antitrust Chronicle 1
[498] See Economides and Lianos (n 396) 35-40.
[499] Liza Lovdahl Gormsen and Jose Tomas Llanos, 'Facebook's Anticompetitive Lean in Strategies' (2019) Available at SSRN: https://ssrn.com/abstract=3400204 or http://dx.doi.org/10.2139/ssrn.3400204, 22-26.

incumbent in the market (MySpace).[500] The second stage involved engaging in deception and privacy violations after it had secured market dominance. This theory is consistent with the documentation of Facebook's policies over the years.[501] They note that Facebook/Meta was then able to change these policies because end users had no alternative options due to its worldwide dominance in the social media market.[502]

Some of these reservations were found in the 23 June 2020 provisional decision of the German Federal Court of Justice (FCJ) who upheld the Bundeskartellamt's findings in the case of *Facebook* by rejecting the decision of the Higher Court of Dusseldorf. The FCJ held that *Facebook's* practice of obtaining data without active user consent violated their right to self-determination under the GDPR and also abused their dominance under the German competition law (GWB). [503] The FCJ held that users must be provided with a choice when it comes to intensive personalization of the user experience and thereby have autonomy over how much data they wish to part with.[504] This decision was a significant decision in terms of allowing an exploitative abuse due to violation of rights of citizens.

The FCJ considered the extraction of data to lead to lead to further entrenchment of their dominance and impairment of the online advertising market. They suggested that even though the harm occurs in the form of excessive data collection on the consumer side, the network effects in play may result in impairment of the advertising market as a result of more personalization due to more data being collected leading to dominance entrenchment and further reduction in choice for consumers.[505] While the decision was preliminary, it was a significant one for competition law as this marked the first decision by the highest court of an EU Member State where the notion of an exploitative abuse amounting to an abuse of dominance had been found in cases relating to data extraction and combination.[506] Notably, the case is a Section 19 GWB case which is the German equivalent to Article 102 TFEU under Reg. 1/2003. The Higher Court of Dusseldorf referred the decision to the CJEU for a preliminary ruling under Article 267 TFEU. The latest development in the case is the CJEU's

[500] ibid, 23; See also Dina Srinivasan, 'The Antitrust Case Against Facebook: A Monopolist's Journey Towards Pervasive Surveillance in Spite of Consumers' Preference for Privacy' (2019) 16 Berkeley Business Law Journal 56, 57.
[501] See O'Flaherty 2022.
[502] See Gormsen and Llanos (n 502) 18.
[503] Bundesgerichtshof, The Federal Court of Justice provisionally confirms the allegation of abuse of a dominant position by Facebook, No. 80/2020, KVR 69/19 - decision of June 23, 2020, https://www.bundesgerichtshof.de/SharedDocs/Pressemitteilungen/DE/2020/2020080.html.
[504] ibid.
[505] ibid.
[506] Ibid.

Decision which provides the legal basis for application of data protection and competition law together. This was preceded by the opinion of AG Rantos [507]

3.3.2 Use of Article 102 TFEU and the GDPR: The CJEU's Decision following AG Rantos' opinion

In September 2022, AG Rantos opined that the Bundeskartellamt in fact did not try to penalise a breach of GDPR, but instead used the non-compliance of an undertaking to its provisions to review a case relating to abuse of dominance.[508] While this is a non-binding opinion,[509] the Court tends to consider the AG's Opinion in most cases.[510] In July 2023, the CJEU answered the referral for a preliminary reference by the Higher Regional Court of Dusseldorf in the case of *Facebook* in Germany by holding that a competition authority may refer to an infringement of the GDPR in the context of an abuse of a dominant position in agreement with AG Rantos.[511] It further stated that such reference to a breach of the GDPR provisions while determining an abuse under Article 102 TFEU would not be considered replacing the competent date protection authority,[512] but would rather take into consideration the importance of personal data and its processing as a '*…significant parameter of competition between undertakings in the digital economy*.'[513]

3.3.2.1 On the competent authority: Institutional cooperation

Issues relating to legal certainty are bound to arise if the institutional framework seems ad-hoc, which it may if there is lack of certainty on which institution should be responsible for enforcing the application of the GDPR. However, if there are common interests for different EU institutions, such an issue may be resolved. AG Rantos suggested that Article 4(3) TEU binds all administrative authorities to act in a manner that is in good faith and upholding the interests of the EU.[514] Allowing competition authorities to incidentally examine GDPR related

[507] Case C-252/21, *Meta Platforms v Bundeskartellamt,* Opinion of Advocate General Rantos, 20 September 2022.
[508] ibid [18].
[509] See Article 19(2) TEU and Article 252 TFEU and Article 288 TFEU.
[510] Rafal Manko, 'Role of Advocates General at the CJEU', (October 2019) European Parliamentary Research Service. It is stated in this European Parliament Briefing that the CJEU is 67 percent more likely to annul an act if the Advocate General suggests it.
[511] Case C-252/21, *Meta Platforms v Bundeskartellamt,* EU:C:2023:537 [49].
[512] ibid [50].
[513] ibid [51].
[514] See Opinion of AG Rantos [28].

violations while assessing an abuse of dominance case under Article 102 TFEU seems to be one that considers the common goals that all EU institutions are bound by.[515] The joint goals envisaged in the EU and within various EU legislation would allow for joint working of different administrative authorities within the EU. The common goals of competition law, data protection law and consumer protection law allow for this possibility.[516]

The CJEU further laid down that the competent data protection authority within the Article 51 GDPR and the competition authority must cooperate sincerely to ensure that obligations laid down in the GDPR are fulfilled.[517] The competition authority is further required to be bound by the prior decisions of the competent data protection authority while considering a GDPR infringement that also involves examining whether there is a breach of Article 102 TFEU.[518] While the two authorities have different goals, Article 4(3) TEU requires different EU bodies to cooperate sincerely while maintaining and upholding EU law.[519]

The decision of the CJEU in this case is significant in clarifying that a data protection breach within the GDPR may amount to an abuse of dominance within Article 102 TFEU. The judgment is in line with AG Rantos' view that a finding of breach of GDPR may be incidental to the finding of an abuse of dominant position in his opinion on the same case. The longstanding debate regarding whether such an interplay of the two areas of law is possible within EU law was answered in a significant manner by the CJEU which would allow competition authorities to play a more active role in digital platform cases. This is also in line with the obligations on core platforms (of which Meta/Facebook will be one) laid down in the DMA which seeks to carry out a task similar to the one that the CJEU has allowed in this case.

3.3.2.2 <u>On data combination without consent</u>

On the issue of user consent under Article 9 GDPR, the AG noted that users may actively share their information with a specific group of people on a website like Facebook.com, but this does not mean that the information is to be shared with the general public.[520] The CJEU held in the *Facebook Germany* case that the act of merely visiting websites by users should not be assumed

[515] ibid [33].
[516] See Section 3.6.2.
[517] ibid [54].
[518] ibid [56].
[519] ibid [62-63].
[520] See Opinion of AG Rantos in *Facebook* [44].

to also mean that they have provided consent to share their personal data publicly.[521] This means that any user data that the website owner wishes to share with the general public must require consent to be provided by the user within Article 9(2)(e) of the GDPR.[522] In the case of using 'Like' or 'Share' buttons on websites like Facebook, the individual settings selected by the user with complete awareness should determine the level of personal data made public.[523]

When asked whether Meta Platforms/Facebook's data combination and processing may be necessary to provide a more personalized user experience,[524] the CJEU held that the various products and services are subject to separate user agreements and processing of user data can only occur for any legitimate interest once it is determined that such processing was necessary to meet the legitimate interest so determined.[525] However, it was determined that such combination and processing of data is not necessary to enhance user experience and performance.[526]

The issue of imbalance of power between users and the platform is also a key consideration when consent is taken for the purpose of data combination. AG Rantos noted that 'the existence of an imbalance of power between the data subject and the controller…'[527] may play a role in the assessment of freedom of consent within the GDPR. The CJEU agreed that the dominant position of an online platform may create an imbalance between users and the firm while providing consent freely under Article 7(4) of the GDPR.[528] Considering the lack of necessity of processing data to meet user interests, the CJEU opined that users who refuse to data processing must be provided with an alternative option which may involve paying o f a monetary fee.[529] However, the CJEU held that the dominant position of a firm in itself does not preclude users from being able to freely consent.[530]

3.3.2.3 Section summary

[521] See *Facebook Germany* CJEU Decision [78-79].
[522] ibid [80-84]
[523] ibid [85].
[524] Ibid [100].
[525] ibid [117-126].
[526] ibid [102].
[527] See Opinion of AG Rantos [77].
[528] See *Facebook Germany* CJEU Decision [149].
[529] ibid [15].
[530] ibid [154].

The *Facebook Germany* case has provided a basis for the application of data protection and competition laws simultaneously. Tracing the development of the case from the Bundeskartellamt's Decision to that of the CJEU has showed that the joint usage of legislation is not a straight forward action as has been evidenced by the Higher Court of Dusseldorf's reservations. Nonetheless, the binding decision of the CJEU can be considered to be a welcome one as it may have put a check on the activities of online platforms like Meta/Facebook. The unhindered actions of dominant platform firms due to the novel nature of their businesses has finally come under scrutiny which in many ways is a welcome decision. Imposing unfair conditions on users is a violation of Article 102 TFEU and assuming user consent to have been granted falls within this category. A similar violation can be of providing users limited or exclusive results when search is carried out on online search engine platforms like Google.

3.3.3 Google and unauthentic search results: Considering an exploitative harm

Search engine platforms have become an essential need for society in today's day and age. Among search engine's, Google arguably has the best one. Evidence of this is can be inferred from the index of more than 500 billion websites present with Google which allows it to provide an unrivalled view of the web.[531] Other competitors such as DuckDuckGo (which is a more privacy friendly web browser) are unable to compete with Google's index as they would not be able to cover the costs of developing their own organic links and search engine index which is required to run a lucrative search engine business model.[532] This part of the chapter argues that providing unauthentic results to consumers in return for them searching on Google's platform can be considered to be an exploitative abuse within the scope of Article 102(a) TFEU. The argument extends from the *Google Shopping* case where the Commission and General Court (GC) had focused mainly on an exclusionary abuse. The case is currently pending in front of the CJEU.[533] Discussing the procedural history of the case may allow the argument posited here to be fleshed out in a clearer manner.

[531] See Wakabayashi in the New York times (2020).
[532] ibid; See also Megan Gray for DuckDuckGo, 'Online Platforms and Market Power', Part 2: Innovation and Entrepreneurship, before The House Judiciary Subcommittee on Antitrust, Commercial and Administrative Law, July 16, 2019.
[533] C-48/22 P - Google and Alphabet v Commission (Google Shopping).

In the case of *Google Shopping*,[534] the Commission held that Google abused its dominance as it directed users to its own shopping services instead of displaying genuine search results. It was found that Google was able to direct traffic away from competing comparison-shopping services to its own brand by manipulating the results.[535] With respect to the effect on consumers, the Commission held that Google's conduct was likely to have an anti-competitive effect on consumers as it would reduce their ability to access the most relevant comparison-shopping services.[536] The Commission also stated in its decision that although consumers do not pay monetary consideration for the online services such as online search, they pay by providing data for every search request which is then monetised by Google.[537] The case did not directly raise issues relating to data protection violations due to the presence of unauthentic self-preferenced results harming competition directly without needing to consider whether consumers were harmed first before competition was harmed.[538]

In February 2020, Google appealed the decision on the grounds that it did not favour its own service and that its services were better placed due to them being better on the merits of competition.[539] The GC delivered a judgement that can be said to have had significant consequences in the field of abuse of dominance in EU competition law in digital markets. In its judgement,[540] the GC established an unequal treatment rule by ruling that a dominant firm such as Google had no economic sense to demote the results of competitors while promoting its own other than to foreclose competitors, and considered such behaviour an abnormality.[541] The GC also held that the Commission was only required to show potential anti-competitive effects and not actual ones irrespective of whether it was more efficient than its competitors owing to the importance of its search engine on which other competitors and users depended on.[542]

There is criticism of the GC's approach as highlighted by Deutscher who argues that even if the GC did not find that the case met the *Bronner* criteria, the GC could have relied on the use of existing case laws such as *MEO* which prohibits dissimilar conditions being applied to

[534] Case AT.39740 *Google Search (Google Shopping)* (2017).
[535] ibid [341-43].
[536] ibid [332].
[537] ibid [158].
[538] ibid.
[539] Tom Jowitt, 'Google Begins Appeal Against EU Shopping Penalty', (Silicon Technology and Business News 12 February 2020), https://www.silicon.co.uk/e-regulation/justice/google-appeal-eu-shopping-penalty-331646.
[540] Case T-612/17, *Google LLC v. Commission*, 10 November 2021.
[541] ibid, [149] and [176-180].
[542] ibid [541].

equivalent transactions.[543] He notes that even though the *MEO* case dealt with a discriminatory price, nothing precludes its application to a case relating to non-price foreclosure which the GC did not consider.[544] The approach suggested by Deutscher could have allowed existing tests to be further strengthened and for legal certainty to be maintained which the GC's opinion does not help with as they have established new theories of harm while already existing ones may seem to satisfy the facts at hand. Nonetheless, one of the lessons from *Google Shopping* is that the Court is not afraid to develop new theories of harm to punish novel types of abuses.

This chapter argues that the exclusionary abuse found as a result of self-preferencing is also accompanied by consumers being misguided to unauthentic results which limits their choice and can lead to an exploitative abuse. This notion was also put forward by BEUC in the *Google Shopping* case where they argued that the impact on competition caused harm to consumers as their ability to access a wide range of sellers were limited.[545] The argument is posed with the disclaimer that the issue was not raised by the Commission or even in the appeal in front of the General Court. Therefore, the argument needs to be considered as one that is separate from the case as the case dealt with an exclusionary abuse.

It has been argued in the past that Article 102 TFEU abuse requires both an exclusionary and exploitative harm to be demonstrated to ascertain distortion of the market as this helps assess the overall effect of the conduct.[546] The exclusionary harm in terms of deterioration of competitor comparison-shopping website traffic in the case of *Google Shopping* seems to overlap with an exploitative one as the end effect is the lack of authentic choice for consumers which does prompt the suggestion that one part of *Google Shopping* could be a case of an exploitative abuse under Article 102(a) TFEU as unauthentic results can be an unfair condition.[547]

This also brings to light the question whether Google should be regulated as a public utility due to its essential requirement in online search related activities considering its wide index.[548] The designation of Google as a gatekeeper under Article 3 DMA would also allow the

[543] See Deutscher 1355-1358.
[544] ibid, 1359.
[545] See *Google Shopping* GC Decision [431].
[546] See Akman 2012 (n 382) 301-321.
[547] See *google Shopping* GC Decision [430-31].
[548] See Mark A. Jamison, 'Should Google Search be Regulated as a Public Utility?', (25 March 2012), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2027543. The paper argues that google should not be treated as a public utility; See also Elettra Bietti, 'Structuring Digital Platform Markets: Antitrust and Utilities' Convergence' 2024(4) University of Illinois Law Review (2023), for a more recent perspective arguing a pragmatic approach to shape the digital economy.

application of Article 6(5) DMA which disallows self-preferencing when it comes to rankings and indexing following on from the *Google Shopping* case.

Bringing the discussion back to competition law, the *Google Shopping* case mainly deals with an issue closely related to the essential facilities doctrine established in *Bronner,*[549] even though the GC tries to delineate it as a different theory of harm due to the lack of direct refusal to deal,[550] the overall analysis confirms the idea that Google's search engine was indispensable for users and comparison-shopping websites.[551] Following on from *Slovak Telekom,*[552] in a situation where there is no active refusal to supply, the 'indispensability' test established in *Oscar Bronner*[553] does not need to be proved in order to find an abuse under Article 102 TFEU.[554] The GC also held that Google was able to divert user behaviour towards non-organic results as a result of its practice leading to an anti-competitive effect.[555]

In *Lithuanian Railways,*[556] the obligation of a railway infrastructure manager was brought into consideration by the CJEU and it was found that the dominant firm, had a special responsibility to make sure that its conduct does impair undistorted competition in the market and the lack of regard for this responsibility was held to be an abuse within the scope of Article 102 TFEU.[557] The above case and *Slovak Telekom* have shown that the essential facilities doctrine established in *Bronner* need not be strictly followed when undertakings that are in charge of essential infrastructures are concerned. The General Court's G*oogle Shopping* judgment also established that holding an essential infrastructure may be dealt with using Article 102 TFEU but the action of self-preferencing would be different from that of refusal to supply.[558] The Court's approach has tended to establish new forms of abuse in cases concerning dominant infrastructure holders. As for whether Google Search is an essential function that needs to be regulated, the overdependence of consumers on it make other alternatives such as Bing not comparable to its superior search engine.[559] Prufer and Schottmuller showed that quality of search results would be affected as a result of concentration in search markets.[560] While the focus has been on

[549] See *Oscar Bronner* case [41].
[550] See *Google Shopping (GC)* [240].
[551] ibid [218].
[552] Case C-165/19 P, *Slovak Telekom a.s v European Commission*, EU:C:2021:239 [57-60].
[553] See *Oscar Bronner* [41].
[554] See *Slovak Telekom* [57-60].
[555] ibid [172].
[556] Case C-42/21 P, *Lietuvos geležinkeliai (LG) v Commission (Lithuanian Railways case)*, EU:C:2-23:12.
[557] ibid [133].
[558] See *Google Shopping* GC Decision [212-250].
[559] ibid [47]. Bing's market share was noted to not exceed 10 percent in any EEA country.
[560] See Prufer and Schottmuller (n 160) [992-994].

eliminating the exclusionary abuse in *Google Shopping*, providing some insights into the end user exploitation would allow determining more effective remedies.[561]

Google is indispensable not only to downstream competitors who suffered harm due to its self-preferencing, but also to end users who do not have an alternate option other than Google.[562] It is also clear from this case that the market is not contestable considering the dependence of online sellers on Google's platform. Therefore, consumers have little choice but to carry out their search on Google's platform. Consumer data is collected by Google in return for the service, but the service provided has been one where it has shown unauthentic results to end users by self-preferencing.

As was the case with the theory of harm that was established in *Google* Shopping, based on other cases related to the essential facility doctrine, it can be suggested that Google's conduct of unequal treatment of competitors leads to direct harm to consumers as they are unable to access authentic results.[563] Perhaps, the way forward is that Article 3 DMA could play a role in assigning Google with the gatekeeper status after which end consumer exploitation could be assessed using Article 6(5) DMA. Coming to the competition law regime, this chapter suggests that unauthentic search results shown to consumers can lead to a violation of Article 102(a) TFEU as consumers are imposed unfair trading conditions by the dominant firm, Google. The use of Article 102(a) TFEU will need to be studied to see whether it is a clear fit in such cases.

Figure 8 below may be able to summarise the situation without competition law enforcement. In Section 3.6.3, Figure 8 will depict the situation with competition law enforcement.

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[561] See Section 5.3 of Chapter 5 for a discussion on the ineffectiveness of the remedies imposed in *Google Shopping*.
[562] Agustin Reyna, 'How Google is eroding consumers' freedom to choose' BEUC, 14 March 2018, https://www.beuc.eu/blog/how-google-is-eroding-consumers-freedom-to-choose/.
[563] Ibid. BEUC has argued that consumers get harmed directly as a result of not receiving the most relevant search results.

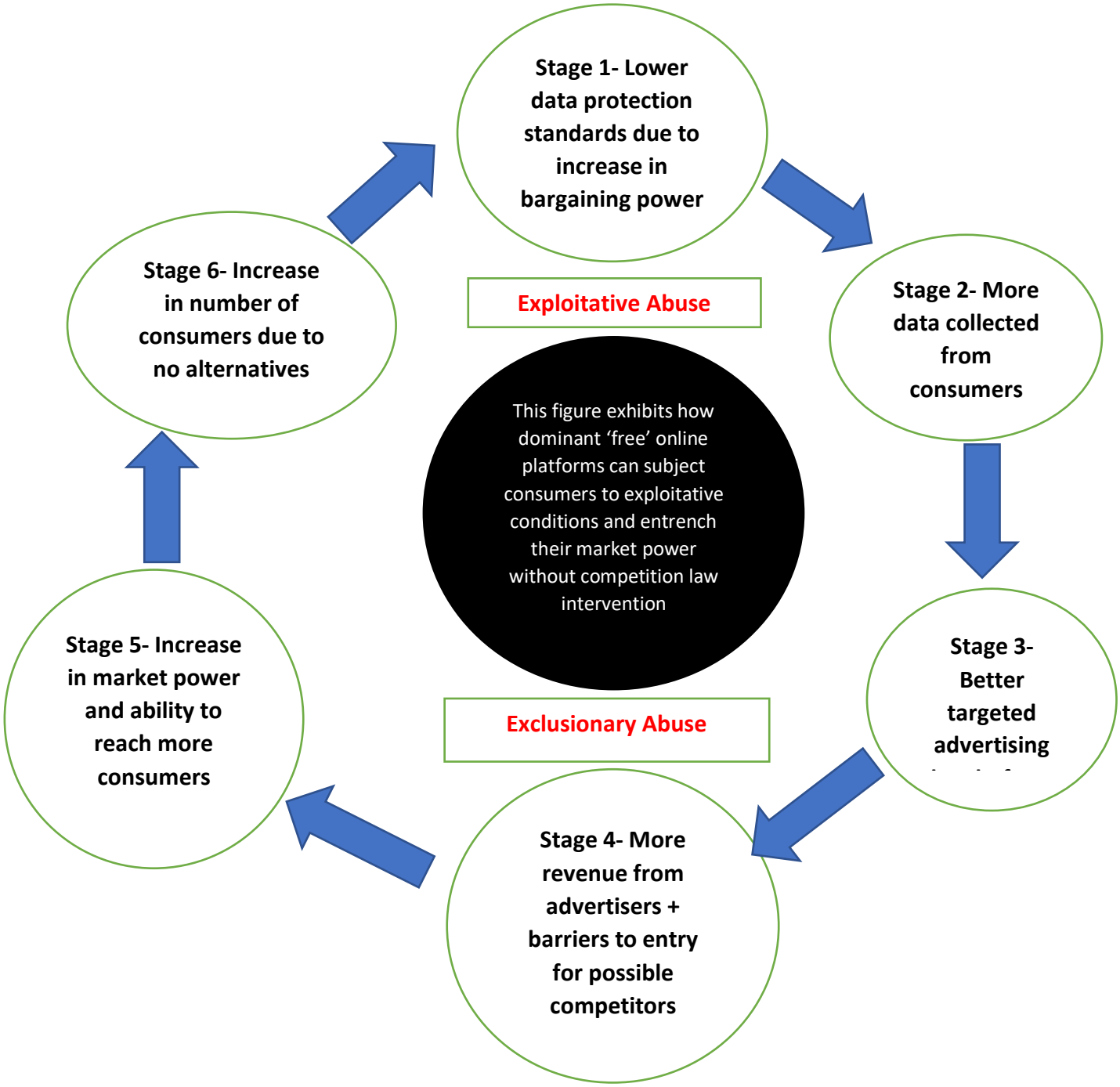

Figure 8: Excessive data collection leading to entrenchment of dominance[564]

[564] If the top circle (Stage 1) is considered the starting point, it leads to the collection of more data from users in an unfair and deceitful manner unless regulated in Stage 2. That can translate into better targeted advertising (assuming the information collected is relevant in this pursuit) leading to more revenue from advertisers in Stage 3 which leads to entrenchment of the firm's dominance in Stage 4 as all the advertisers would demand the services of the dominant firm than any other competitor due to the stronger network effects. That leads to lower choice (Stage 5) for consumers and hence an increase in number of consumers again due to network effects in Stage 6. The dominant firm can continue this process unless competition authorities take notice of the

3.4 Excessive data collection: Use of unfair pricing under Article 102(a) TFEU

Article 102(a) TFEU prohibits a dominant firm from directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions. This part of the chapter will discuss the theory on unfair pricing using past case laws and commentaries to finally see whether it may be applicable to excessive data collection cases. The literature relating to this will be referred to throughout this part as most of it helps to assess whether the link between unfair pricing and using data as a price while considering excessive data collection is a suitable one.

3.4.1 Unfair pricing: Case law analysis

The first instance of the concept of an excessive price being discussed was in the case of *General Motors*, where the commission noted that the price charged for a product or service should relate to the economic value of it. [565] In *United Brands*, the CJEU determined the two-step test to assess an unfair and excessive price. The first step is to assess the price charged for the product with the cost of producing that product.[566] The second step to determine unfairness is to assess the price charged with a past price or that of a comparator.[567] The court noted that while a high profit margin cannot in itself lead to the conclusion of an unfair price, price would be excessive if it had no reasonable relation to the economic value of the product.[568] Another aspect that is important is to consider the economic value derived from the product and for the price to not exceed this.[569] However, the Court did not specify how this would be done in the *United Brands* case.

exploitative abuses under Article 102 (a) TFEU in the form of excessive prices charged by imposing unfair conditions on the users.

[565] Case 26/75, *General Motors v Commission* EU:C1975:150. It is to be noted that no abuse was found in the case.

[566] See *United Brands v. Commission* (n 223) [251]. The Commission had not carried out this step in the case as it did not analyse the dominant firm's cost structure.

[567] ibid, [252].

[568] ibid, [249-255].

[569] ibid, [251].

Clarification was provided regarding the consideration of economic value derived from a product in the *Port of Helsingborg* cases where the unique positional value of the port was considered while determining whether an excessive or unfair price was charged. [570]

The need to consider the economic value of the good beyond considering whether the prices are excessive in itself or when compared to a comparator is a task that may not be easy for a competition authority as the concept of 'economic value' is a legal concept and not an economic one since it cannot be quantified. This has made assessment of unfair pricing cases harder due to the lack of clarity in what is meant by the term 'economic value'. [571]

More light was shed on the economic value of products or services in relation to excessive prices in two copyright society related cases, *Tournier* and *SACEM*. AG Jacobs opined that the use of the product needs to play a role in determining excessiveness which takes account of the context as well. [572] The CJEU agreed in both cases with the AG but considered the prices charged in other Member States as the determining factor of an excessive price. [573]

In *Deutsche Post AG,* prices for cross-border mails were found to be above the average cost which was used as the measurement for economic value rather than the price of a comparator. [574]. The most recent CJEU case on excessive pricing is found in the case of the *Latvian Copyright Society* where it was ruled that a price charged should be significantly higher than a past price or those of comparators and persistent to be deemed excessive. [575] The CJEU also confirmed that there is no one single method of determining excessiveness. [576]

[570] *Scandlines* Case COMP/ARTICLE36.750/D3 [2006] 4 CMLR 23 and *Sundbusserne Sverige AB* Case COMP/ARTICLE36.568/D3 [2006] 4 CMLR 22.
[571] Claudio Calcagno, Antoine Chapsal, and Joshua White, 'Economics of Excessive Pricing: An Application to the Pharmaceutical Industry' (2019) 10(3) Journal of European Competition Law & Practice 166, 166-171.
[572] Case 395/87, *Ministère public v Jean-Louis Tournier* and Joined cases 110/88, 241/88 and 242/88, *François Lucazeau and others v SACEM and others*, ECR 1989 -02521, Opinion of Mr Advocate General Jacobs delivered on 26 May 1989 [68].
[573] Case 395/87, *Ministère public v. Jean-Louis Tournier*, [34-46]; See also Joined cases 110/88, 241/88 and 242/88, *François Lucazeau and others v SACEM and others*, ECR 1989 -02521, [31-32].
[574] Case COMP/C-1/36.915 *Deutsche Post AG* – Interception of cross-border mail Commission Decision 2001/892/EC [2001] OJ L331/40 [159-162]; See also Pinar Akman, 'Exploitative Abuse in Article 82EC: Back to Basics?' (2009) 11 Cambridge Yearbook of European Legal Studies.
[575] Case C-177/16, Autortiesību un komunicēšanās konsultāciju aģentūra/Latvijas Autoru apvienība v. Konkurences padome (AKKA/LAA), EU:C:2017:689, [7-13], [49] and [56-58].
[576] Ibid.

Some National cases in the EU have also provided toward the development of unfair pricing jurisprudence such as *Albion Water II*,[577] and *Pfizer/Phenytoin*,[578] where the difference between price charged and value derived was considered to be the determining factor.

One criticism of dealing with unfair pricing under Article 102(a) TFEU is that markets can self-correct themselves as an excessive price is not sustainable long term which will eventually lead to entry.[579] Some propose that competition authorities ought to only involve themselves in unfair pricing when there is no sector regulator,[580] but should avoid such involvement if a firm has grown organically as that may disincentivize future innovation.[581] The other criticism is regarding assessing whether a price is excessive based on non-economic factors such as the economic value of the product or service which have very little to do with the price that is charged making assessment unclear.[582] The negative impact of overenforcement in unfair pricing can be that innovation gets stifled.[583]

The complexity in assessing an excessive price due to the lack of easily observable benchmarks and the short-lived nature of excessive prices which may be corrected by market forces and efficient entrants.[584] The criticism has been relating to the lack of clear guidance in relation to unfair pricing cases. This is also evident form the Commission's Guidance Information which does not include a section on unfair pricing.[585] A test to assess an excessive price needs a clear definition, should be easy to implement, and should be able to prevent consumer harm rather than stifle innovation.[586] The use of unfair pricing under Article 102 TFEU would be more

[577] *Albion Water Limited v. Water Services Regulatory Authority and DŴR CYMRU CYFYNGEDIG UNITED UTILITIES WATER PLC*, [2008] CAT 31 [250-275].
[578] *Flynn Pharma Ltd and Flynn Pharma (Holdings) Ltd v Competition and Markets Authority* [2018] CAT 11; See also Competition and Markets Authority- Press Release, 'CMA welcomes Court of Appeal judgment in Phenytoin case', (10 March 2020), https://www.gov.uk/government/news/cma-welcomes-court-of-appeal-judgment-in-phenytoin-case.
[579] Lars-Hendrik Röller, 'Exploitative Abuses, in European Competition Law Annual 2007: A Reformed Approach to Article 82 EC in Claus-Dieter Ehlermann, Mel Marquis (eds.), *European Competition Law Annual 2007: A Reformed Approach to Article 82 EC* (Hart Publishing, London 2007) 525–532.
[580] Massimo Motta and Alexandre de Streel, 'Exploitative and Exclusionary Excessive Prices in EU Law' in Claus-Dieter Ehlermann and Isabela Atanasiu (eds.), *What is an abuse of a dominant position?* (Hart Publisher, 2003) 1-20.
[581] ibid 14-20.
[582] Mark Furse, 'Excessive Prices, Unfair Prices and Economic Value: The Law of Excessive Pricing Under Article 82 EC and the Chapter II Prohibition', (2008) 4(1) European Competition Journal 59, 70-80.
[583] Robert O'Donoghue, and Jorge Padilla, *The Law and Economics of Article 102 TFEU* (3rd Edition, Bloomsbury Publishing Plc 2020) 887-954.
[584] Bruce Lyons, 'The Paradox of the Exclusion of Exploitative Abuse', CCP Working Paper No. 08-1, (December 2007).
[585] European Commission, 'Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings' (2009/C 45/02).
[586] Pinar Akman and Luke Garrod, 'When Are Excessive Prices Unfair?' (2011) 7(2) Journal of Competition Law & Economics 403, 403-426.

beneficial when there is a simultaneous exclusionary harm as that shows that such a price has led to an anti-competitive effect.[587]

Coming back to the main point of this chapter, the use of this theory of harm to excessive data collection cases may not be straightforward considering the hurdles that are already in place in the assessment of unfair pricing. Add to that the current inability data not being valued as a currency yet, the task would be an even hard one to apply unfair pricing under Article 102(a) TFEU. It may be worthwhile to strike out that possibility in a clearer manner.

3.4.2 Data as a currency and the usage of unfair pricing

While data is not valued in terms of currency yet by consumers, this is a practice that requires to be changed as the risks associated with data collection go beyond targeted advertising and data sales to third-party firms. One of those risks is of data being sold on the dark web (used for criminal activities) which can result in identity theft by cybercriminal as noted by a cybersecurity expert.[588] While this is not within the scope of discussion of this chapter, this is another reason to pursue the use of data as a currency.

Cases within such as *United brands, Port of Helsingborg, Latvian Copyright Society, Pfizer/ Phenytoin, Albion Water II* are concerned with the charging of excessive monetary prices.[589] While charging a higher price may be considered to be similar to cases of data collection since excessive data extraction could resemble charging a price that does not meet the economic value of the product or service, the non-depleting nature of data makes it very different when considered a form of currency as the user has the ability to reuse the same data repeatedly which is not the case in cases of excessive or unfair pricing concerning physical currency. The lack of comparators due to the near monopoly position of platform firms makes comparison of privacy policies with those of other firms very hard. When compared with its own old data collection policy, it is hard to draw the line as to where data collection may be legitimate or unfair as aspects such as third-party tracking complicate this further.[590] Determining the

[587] See Akman 2012 (n 382) 208.
[588] Danny Pehar, 'In The Digital Age, Our Data Is Currency', (Forbes, Feb 20, 2020), https://www.forbes.com/sites/forbestechcouncil/2020/02/20/in-the-digital-age-our-data-is-currency/.
[589] See above section.
[590] Viktoria H.S.E. Robertson, 'Excessive Data Collection: Privacy Considerations and Abuse of Dominance in the Era of Big Data', (2019) 57 Common Market Law Review 161, 161–189.

economic value also become a complicated procedure as online platforms have vague privacy policies which makes it hard to judge how much data is provided for the platform's service.[591]

The lack of precision in what constitutes the real price for the service of the platform seems to be a limitation in using unfair pricing to data collection cases.[592] It might be hard to determine the economic value of the service provided in return for the amount of data extracted due to the ambiguity in determining the benefits of targeted advertising which is dependent on the effect on each individual user subjectively.[593]

The Bundeskartellamt voiced a similar opinion in their decision on *Facebook* by stating that data is free in the eyes of the most users even though it might be considered a currency or commodity by the firm.[594] They clearly stated that the privacy policies of *Facebook* need to be considered 'terms and conditions' under S.19 GWB and not 'price'.[595] Consumers are also more aware of what they are spending when it comes to physical currency compared to data which can be non-rivalrous and re-used.[596]

Therefore, this chapter makes an initial conclusion that unfair pricing in its current form may be unsuitable in the line of cases such as *Gormsen v. Meta.* However, unfair trading conditions under Article 102(a) TFEU may be applicable to cases relating to excessive data collection.

3.5 Excessive data collection: Use of unfair trading conditions under Article 102(a) TFEU

3.5.1 Unfair trading conditions case laws

In the *Facebook* Decision, the Bundeskartellamt stated that that unlike unfair pricing where a quantitative abuse limit exists, the application of unfair trading conditions does not impose any such obligation as it refers to a direct breach of the law.[597] Kemp suggests to view the

[591] ibid.
[592] Magali Eben, 'Market Definition and Free Online Services: The Prospect of Personal Data as Price', (2018) 14(2) Journal of law and Policy for the Information Society 227-281.
[593] See Lianos and Economides (n 396) 37-43.
[594] See *Facebook* case Bundeskartellamt Decision [570].
[595] ibid, [569-570].
[596] ibid [570].
[597] ibid [958].

transaction conducted between consumers and zero-price digital platforms in terms of data collected in return for the service as a cost to the consumer imposed in the process of the digital transaction rather than a price that consumers choose to pay.[598] These costs are in terms of lower privacy standards for consumers which are hard to quantify currently. These costs may be in terms of vague privacy policies which make the consumer share more information than they would have been willing to share had they fully understood the terms of service.[599] This suggests that using unfair trading conditions might more suitable in data collection cases.

Unfair trading conditions are prohibited under Article 102(a) of the TFEU. These conditions may be restrictions or commitments imposed by the dominant entity on its buyers which are unfair or discriminatory in nature.[600] Much like case laws on unfair pricing, there are limited number of case laws concerning unfair trading conditions. In Chapter 2, it was noted that cases such as *DSD, SABAM, Telemarketing, GEMA and AstraZeneca* have established that conditions imposed need to be transparent, necessary to fulfil a function, and most importantly proportionate in nature.[601]

In *Alsatel,* it was held that clauses concerning duration of a contract with stipulations of automatic extension of contracts with the requirement of higher rents to be paid to the dominant firm would be considered unfair under Article 102(a) TFEU.[602] Notably this case dealt with an intermediate customer and not end consumers which is why competition law dealt with it.[603] However, the principle of necessity can be inferred from the case. The *Alsatel* decision could be similar to the collection of data by firms without the active consent of users.

In November 2019, several unions representing press publishers filed a complaint in France against *Google* for denying remuneration to press publishers going against a newly enacted law on press publishers' rights,[604] stating that it would no longer display content belonging to

[598] See Kemp (n 465) 632.
[599] ibid 635-648.
[600] See Jones et al. 566-569.
[601] See Section 2.5.5.
[602] Case C-247/86, *Société Alsacienne et Lorraine de Télécommunications et d'Électronique (Alsatel) v. SA Novasam*, ECLI:EU:C:1988:469.
[603] Pinar Akman, 'Consumer versus Customer: the devil in the detail', (2010), 37, Journal of Law and Society, 315, 315-344.
[604] LAW n ° 2019-775 of July 24, 2019 tending to create a neighboring right for the benefit of press agencies and press publishers (1); See also, Brad Spitz, 'Press Publishers' Right: the French Competition Authority orders Google to negotiate with the publishers', (Kluwer Copyright Blog, 14 April 2020), http://copyrightblog.kluweriplaw.com/2020/04/14/press-publishers-right-the-french-competition-authority-orders-google-to-negotiate-with-the-publishers/.

publishers unless they granted authorisation free of charge.[605] On 9 April 2020, the French Competition authority *(*Autorite de la Concurrence*)* ordered *Google* to negotiate with publishers terms of business that included payments retroactively since the date of filing of the initial complaint. The French Competition Authority held the terms to represent unfair trading conditions under Article 102(a) of the TFEU as *Google* being in a dominant position (90 percent market share), is depriving publishers of the right to be remunerated for their content which they ought to be granted in accordance with the newly enacted law. Therefore, it required the firm to not abuse its dominant position and conduct its negotiations in good faith in order to allow its users (publishers) to obtain the remuneration they owed.[606]

Most unfair trading cases have dealt with intermediate customers and not end consumers.[607] However, the principles established through the cases in this Section are relevant. It is also worth noting that nothing precludes the application of unfair trading conditions case laws to end consumers.

3.5.2 Using unfair trading conditions to data collection cases

The data collection policies of social media platforms such as *Facebook* invoke the application of data protection laws but since the user is forced to pay the firm through their data and attention with very little choice but to continue using the platform due to the absence of any able competitor overlaps with competition law. This is because an unreasonable expansion of data use policy and data collection by the dominant social media firm may constitute an unfair or excessive price which is a violation of Article 102(a) TFEU.[608]

As far as unfair trading conditions cases go, proportionality is one of the main consideration when assessing whether conditions may be deemed unfair in cases relating to exploitative abuses by dominant firms by under Article 102 (a). [609] By drawing from case laws that dealt

[605] Autorite de la Concurrence, Décision n° 20-MC-01 du 9 avril 2020 relative à des demandes de mesures conservatoires présentées par le Syndicat des éditeurs de la presse magazine, l'Alliance de la presse d'information générale e.Article et l'Agence France-Presse, 9 April 2020
[606] ibid [190-217]; See also Autorite de la Concurrence, 'Neighbouring rights: the Autorité imposes urgent interim measures on Google', (9 April 2020).
[607] See Akman (n 267).
[608] Aleksandra Gebicka and Andreas Heinemann, 'Social Media & Competition Law', (2014), 37(2), World competition law and economics review, 149, 149-172.
[609] Maximilian N. Volmar and Katharina O. Helmdach, 'Protecting consumers and their data through competition law? Rethinking abuse of dominance in light of the Federal Cartel Office's Facebook investigation' (2018) 14(2-3) European Competition Journal 195, 195-215.

with unfair trading conditions, such as *SABAM*, *GEMA II*, and *DSD*,[610] it can be summarised that the conditions of trade may be deemed unfair if they are 1) not necessary towards achieving the object of the contract and 2) Not proportionate in view of the object sought where proportionality is determined by a) legitimacy of the object, b) the requirements of the contract can fulfil the object, c) there are no other non-abusive means to achieve the object and d) the object should outweigh the exploitative effect.[611]

The CMA noted in the Digital Advertising Report, 2020 that due to lack of competition, consumers need to provide more data than they would want to in order to benefit from the services of the platform. Due to the lack of alternative platform options, they are locked in with the platform or stand to lose out on their services.[612] The only option left for users is to not be active on social media websites. This is one of the reasons Article 102 TFEU ought to correct the exploitative harm occurring the market which will in turn lead to further entrenchment of the online firms' dominance.

3.6 The way forward: Joint of Article 102(a) TFEU with other legislations

The chapter has so far mentioned the usage of other relevant legislations. This part will consider the joint usage in more detail. To assess fair data collection, Clifford et al. express the need to consider other legislations that deal with consumer welfare such as the Unfair Contract Terms (UCT) Directive,[613] Unfair Commercial Practices (UCP) Directive,[614] the Consumer Rights Directive (CRD),[615] and the Digital Content Directive (DCD).[616] There are many overlaps amongst the different legislations when it comes to transparency and fairness.[617] Some notable overlaps are as follows:

Article 7 UCP Directive refers to misleading omissions which can also be seen in Article 5 CRD which requires complete information to be provided to consumers. Article 5 of the GDPR

[610] See Section 2.5.5.
[611] See Volmar and Helmdach.
[612] Competition and Markets Authority (CMA), 'Online platforms and digital advertising: Market study final report (1 July 2020).
[613] Council Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contracts
[614] See UCPD (n 345).
[615] See CRD (n 344).
[616] Directive (EU) 2019/770 of the European Parliament and of the Council of 20 May 2019.
[617] Damian Clifford, Inge Graef and Peggy Valcke, 'Pre-formulated Declarations of Data Subject Consent—Citizen-Consumer Empowerment and the Alignment of Data, Consumer and Competition Law Protections', (2019) 20(5) German Law Journal 679, 679-721.

refers to obtaining data lawfully and in a transparent manner. Article 6 GDPR reflects the importance of consent of users which is similar to Article 3 UCT Directive which states that unfairness may arise due to imbalance between parties. The DCD is one of the only legislations that accepts data as a counter performance in Article 3. However, Helberger et al. note that third-party tracking is not considered in the legislation which is a possible loophole for exploitation.[618] However, other consumer protection legislations may be able to

On 28 April 2022, an interesting development occurred pertaining to the GDPR when the Court of Justice allowed a consumer protection association (Federal Union of Consumer Organisations and Associations, Germany) to bring legal proceedings against Meta/Facebook under Article 80(2) GDPR (the provision allows any body, organisation or association to lodge a complaint where it feels that rights of data subjects have been infringed under other provisions of the GDPR).[619] The relevant part related to the current discussion on excessive data collection relates to the facts of this case.

The facts of the case pertain to Meta/Facebook obtaining consumers' personal data on using free games made available to them by third parties on its website (facebook.de).[620] It also was indicated that use of the free games by consumers allows Meta/Facebook to publish data relating to the user's score in the game and other information. In one particular game, it was assumed that permission would be granted to post the status, photos and other information of the user.[621] The German Consumer Protection Association considered tis to be in breach of the GDPR as valid consent for processing of data was not obtained. In this section, it has been highlighted that active consent must be obtained under Articles 6 and 7 GDPR for processing of data.

It would be very interesting to see the proceedings before the National Courts (since the preliminary reference was about the ability of the organisation to initiate the case) as the case may be dealt with either using the GDPR, or by referring to both the GDPR, Consumer Protection Directives and competition law (if Meta/Facebook is found to be dominant when the case is initiated). The Court also mentioned in this case that the German Consumer Protection Association may use the GDPR or Consumer Protection Directives to combat

[618] See Helberger et al (n 350).
[619] Case C-319/20, *Meta Platforms Ireland Limited v Bundesverband der Verbraucherzentralen und Verbraucherverbände*.
[620] ibid, [34].
[621] ibid. It is not mentioned what 'other information' can be published.

infringements related to rights of data subjects.[622] This shows the close ties of the GDRP and Consumer Protection Directives. An example is of Article 6(2) UCP Directive which refers to misleading actions by businesses which might induce the consumer to take decisions that they might not have taken if they had been fully informed. This provision may be used in the *Meta Platforms (C-319/20)* case by the Consumer Protection Association in the National Court as suggested by the Court of Justice.[623]

When it comes to the interaction of data protection with the DCD, Helberger et al. explain how the Berlin Court of Appeals used the UCT and UCP Directives to scrutinize the conditions in Facebook's pre-formulated declarations to assess whether they were unfair.[624] They argue that consumer and data protection law can complement each other to deal with unfair data collection.[625] Clifford et al. raise the issue of recognition of the economic value of personal data which is not mentioned in the GDPR. They argue that the GDPR recognises the importance of protection of consumer data protection but fails to recognise it as currency for digital services. Article 7(4) GDPR requires performance of a service to not be conditional on consent and therefore creates confusion between consent and contract when data is used a means of exchange.[626]

The case of *Facebook* in Italy is one where the Autorita` Garante della Concorrenza e del Mercato (AGCM) which is the Italian competition authority used their national consumer protection law which implements Unfair Commercial Practices Directive to decide on Facebook's misleading of consumers where it engaged in activities that discouraged the blocking of third-party tracking.[627] Botta and Wiedemann noticed the difference in approach of the German and Italian competition by showing that there is no one single EU wide approach towards dealing with cases of excessive data collection.[628] They however argued that the fine imposed on *Facebook* by the *AGCM* was a very small amount due to the limits placed in the national consumer law.[629] The application of competition laws along with data protection laws

[622] ibid, [78-79].
[623] ibid.
[624] Landgericht Berlin [LG Berlin] [Berlin Regional Court] Jan. 1, 2018, 16 O 341/15; For a case description, see Facebook Verstößt Gegen Deutsches Datenschutzrecht, VERBRAUCHERZENTRALE BUNDERESVESBAND (Feb. 12, 2018) in Helberger et al. (n 350).
[625] See Helberger et al. (n 350) 1427-65.
[626] See Clifford et al. (n 559) 709-720
[627] Decision of the AGCM adopted on November 29, 2018, in relation to Facebook Inc. and Facebook Ireland Ltd.
[628] Marco Botta and Klaus Wiedemann, 'The Interaction of EU Competition, Consumer, and Data Protection Law in the Digital Economy: The Regulatory Dilemma in the Facebook Odyssey', (2019) 64(3) SAGE Journal.
[629] ibid. Fine of 10 Million Euros was imposed which was double the limit under the Italian consumer Code.

would have allowed a higher fine and had a significant deterrent effect which was lacking from the fine imposed in Italy.

3.6.1 Joint usage of the competition law with consumer and data protection laws: Common Goals

When it comes to assigning a certain monetary value for data, the limitation has been to meet the requirements that have been mentioned in 3.4.3. However, the concept of economic value that has been developed in past EU unfair pricing cases do not consider a monetary or quantifiable value when assessing whether the price is equivalent to the economic value of the product or service. It seems that the concept of economic value suggested in unfair pricing cases is not an economic concept but a legal one. Therefore, there may be scope to determine what economic value is derived from data being bartered for the service of a platform. This can play an assisting role in ascertaining whether a certain condition is unfair.

This chapter proposes to consider unfair pricing and unfair trading conditions together in the case of excessive data collection. The fact that Article 102(a) TFEU is phrased with an 'or' in between unfair price and unfair trading conditions does not mean that they cannot be used together when considering a case of abuse of dominance. The Court of Justice emphasized the need to use Article 102 TFEU as quickly as possible in cases where a market may be distorted due to the abusive action of a dominant firm in the case of *TeliaSonera*.[630] There is no clause that specifies that the two have to be used individually. The Court of Justice further emphasized that 'no derogation from the application of Article 102 TFEU can be tolerated'[631] when the distortion of competition 'may' be possible.[632] This detail is important as it allows looking at a more holistic picture of unfair abuses by dominant firms. When the provisions from the GDPR are also considered, then cases relating to excessive data collection by dominant free online firms can be prevented.

The issue of lack of voluntary consent for users in the case of *Facebook* since they were provided with a take it or leave it option and that the service was conditional on their consent is a violation of Articles 6 and 7 GDPR.[633] The ability of a firm to impose such restrictive data

[630] Case C-52/09, *Konkurrensverket v TeliaSonera Sverige AB*, [108].
[631] ibid [109].
[632] ibid [109-114].
[633] See Economides and Lianos (n 396) 50-60.

protection clauses is by virtue of them holding a high amount of market power as espoused by the Bundeskartellamt.[634] While there are relevant provisions in the General Data Protection Regulation (GDPR) to deal with cases of breach of consent in Article 5 and 6, the Bundeskartellamt felt the need to apply the national competition law due to the relevance of conduct of online platform firms and also because there is no limitation in the GDPR where it stipulates that only data protection authorities have the authority to engage with data protection violations.[635] Applying both the GDPR and the German Competition Act (GWB) aided the Bundeskartellamt to assess the conduct of *Facebook* in a more holistic manner as the issue of unfair trading conditions under competition law caused by their-party tracking was equated with violation of consent of users.

Data has a competitive value which can be realised when data lock-in and social lock-in is prevented.[636] Provisions like Article 17 GDPR which deals with the right to be forgotten reinforces user self-determination of data. Zero-price platform firms such as social media platforms can gain the trust of users and provide users confidence in their self-determination abilities if their services are directed towards privacy which embed data protection into their structure.[637]

The notion of fairness exists in both data protection laws and in competition laws. In data protection law, fairness is the overarching principle which presents a broader structural protection of rights of individuals in terms of control of their data as stated in Article 5(1) GDPR. In competition law, in addition to being present in Article 102(a) TFEU, fairness leads to the legal expectations of different actors in the market to be realised where providing the freedom of choice to consumers is one of the results.[638]

The European Data Protection Supervisor (EDPS) in their 2014 report presented the case for closer interaction of consumer protection laws, data protection laws and competition laws in order to face the newer challenges presented by digital platforms with respect to consumer exploitation, data-based violations and abuse of market power. [639] National legislations and

[634] See *Facebook Germany* [880-884]; See also Opinion of AG Rantos.
[635] No Article in the GDPR limits the powers to one supervisory body; See also Opinion of AG Rantos
[636] Alessandro Mantelero, 'Competitive value of data protection: the impact of data protection regulation on online behaviour', (2013) 3(4) International Data Privacy Law 229, 229–238. Data lock-in refers to preventing the free movement of data between platforms and social lock-in refers to preventing the recreation of the social media atmosphere in another platform.
[637] ibid.
[638] Harri Kalimo and Klaudia Majcher, 'The concept of fairness: linking EU competition and data protection law in the digital marketplace' (2017) 2 European Law Review 210.
[639] European Data Protection Supervisor (EDPS), 'Privacy and competitiveness in the age of big data:

national authorities govern consumer protection related matters usually governed by harmonising directives. EU Member States do have some flexibility in how they implement them under Article 288 TFEU. Consumer protection in the EU context stems out of Article 12 and Article 169 of the TFEU along with Article 38 of the EU charter of Fundamental rights.

3.6.2 Contrasting views: Abuse of dominance meets protection of consumer data rights

On using unfair trading conditions to end consumers, Akman argues that such application ought to be done through separate legislations such as the Unfair Contract Terms (UCT) Directive,[640] which specifically is designed to combat unfair terms being imposed on end consumers.[641] If Article 102 TFEU were to be applied, she argues that an exclusionary abuse must also be accompanied by along with the exploitative abuse.[642] However, there is nothing preventing the joint usage of the UCT Directive with Article 102 TFEU.

There are some notable apprehensions of the joint usage of competition law and consumer protection legislations. Colangelo and Maggiolino present strong reservations to the application of competition laws in assessing cases such as *Facebook Germany* and call for unfair commercial practice laws to instead take precedence.[643] In their view point, competition law is inapplicable to cases relating to privacy and data protection mainly because: 1) it is hard to quantify a competitive quantity of data that can be exchanged in return for the services of the platform firm, 2) data cannot be measured in nominal terms and makes the application of traditional tests of competition law inapplicable, and 3) the lack of clarity in ascertaining a decrease in quality of the services of the platform as to whether a more personalized service due to the increase in data makes the service more valuable, or whether the lowering of data protection standards reduces the quality of the overall service lowering consumer welfare.[644]

Colangelo and Maggiolino argue that if competition law were to apply to cases relating to unfair conditions in zero-price markets, the only aspect that can be regulated is how the data is

The interplay between data protection, competition law and consumer protection in the Digital Economy', (March 2014).
[640] See UCT Directive (n 555).
[641] See Akman 2012 (n 277), 219-20.
[642] ibid. She argues that end consumer unfairness is a concept that a regulator ought to deal with.
[643] Giuseppe Colangelo and Mariateresa Maggiolino, 'Data Accumulation and the Privacy-Antitrust Interface: Insights from the Facebook Case for the EU and the U.S.' (2018) 8(3) International Data Privacy Law 224, 224-39.
[644] ibid.

collected and not how much data is collected.[645] Earlier in Section 3.2, Haucap's criticism of the Bundeskartellamt's decisions were also made for similar reasons.[646] However, as has been pointed out the CJEU's *Facebook* Decision, nothing precludes the application of other legislations with competition law when a dominant firm like Facebook/Meta is in consideration.[647] Lack of application of competition law may very much lead to entrenchment of the firm's dominance as consumer and data protection legislations do not deal with the economic use of data. Hence, a joint application of different legislations is suggested as they all have similar end goals.

Schneider argues that suspected data collection breach being a source of market power appears consistent with both data protection laws and competition laws and that the Bundeskartellamt was correct in its approach to draw out a new path for cases relating to data and competition laws.[648] This is because the increase in data collection on one side of the market (users) leads to an increase in bargaining power over the other (advertisers). She further notes that while considering to use competition law in cases relating to excessive data collection, the link between personal data and market power needs to be established.[649]

One of the most convincing cases for joint usage of the different legislations is presented by Cabral and Lynskey who argue that increase in market power of firms when data protection laws are breached requires both strands of the law to act together to deal with such infringements. They argue that competition law is not equipped with the right tools to deal with such non-monetary price infringements and must look to data protection law for necessary guidance.[650] They further argue that competition law has to inevitably be applied to competition on data protection. Using data protection laws would allow the creation of a better framework which can satisfy both strands of law together. The EU charter also requires that the rights of individuals to be protected by the EU institutions which include competition authorities.

[645] ibid.
[646] See Haucap (n 497).
[647] See *Facebook* Decision [49]; See also Opinion of AG Rantos [33].
[648] Giulia Schneider, 'Testing Art. 102 TFEU in the Digital Marketplace: Insights from the Bundeskartellamt's investigation against Facebook', (2018) 9(4) Journal of European Competition Law & Practice, 213, 213–225.
[649] ibid.
[650] Francisco Costa-Cabral and Orla Lynskey, 'Family ties: the intersection between data protection and competition in EU Law' (2017) 54(1) Common Market Law Review 1, 11-50.

By drawing from cases such as *Schrems*[651] and *Front Polisario*,[652] they argue that there is an obligation on EU institutions to engage the EU charter right of data protection without limiting the scope by using just one facet of the law. This gives further reason to use competition law and data protection laws together wherever necessary.[653] Cabral and Lynskey's argument relates to the point made previously regarding the common goals present in both data protection and competition laws.[654] Keeping in mind Akman's argument regarding the application of Article 102 TFEU only when there is an exclusionary harm that can be seen, the increase in data collection through vague policies only lead to more data being collected leading to lowering of innovation and monopolization.

This point can be backed up by a study carried out to understand what determines the quality of search engines by users, Argenton and Prufer find that the current market structure in the search engine market is not stable.[655] They propose that all search engines disclose their data on consumer clicking behaviour to remedy this problem and create a competitive oligopoly structure which benefits users and also keeps the incentive to innovate for search engines at a higher level than the current one.[656] Till such disclosure regimes are instituted, it may be useful to rely on Article 102 TFEU to assess the abusive actions of dominant search engines as well social media platforms.

3.6.3 Way forward: Competition law, data protection law and the DMA

In a different paper, Botta and Wiedemann call for a more flexible approach in the interaction between data protection and competition law in order to deal with cases of unfair trading

[651] Case C-362/14, *Maximillian Schrems v Data Protection Commissioner*. Held that the courts reading of secondary legislation in light of the EU charter must be strict.
[652] Case T-512/12, *Front Polisario v Council*. It was held by the General Court that there is an obligation on EU institutions to ensure that legally binding acts ensure fundamental rights under the Charter. The case concerned the right to self-determination of the Sahrawi people of Western Sahara who are represented by Front Polisario.
[653] See Cabral and Lynskey (n 650) 11-50.
[654] See 3.6.1.
[655] Cedric Argenton and Jens Prufer, 'Search engine competition with network externalities' (2012) 8(1) Journal of Competition Law and Economics 73, 75-78. For their model see 82-94.
[656] ibid 77.

conditions by platform firms. In their approach, competition law would be applicable to cases of data protection where the result is not satisfactory from a competition law view point and competition law acts a safety net.[657] They also make the case that fining platforms for breach of Article 102 (a) TFEU would not be a viable solution as it does not solve the problem of market failure and instead suggest behavioural commitments imposed on the platforms as solutions. Some of these commitments may be double opt-in measures which make sure that the consent of users is actively taken. Considering the *Gormsen v. Meta* case, it may seem hard to impose a fine as any Court of Competition Authority may find it hard to assess how much damages to pay as data cannot be valued as a currency currently. This may be one of the reasons why the Bundeskartellamt also chose to not fine the platform, but to suggest changes to its practices. Perhaps, suits that demand a fine could create a deterrent effect. On the other hand, they may also be brushed off as suits brought forward for monetary gains.

If data is collected from consumers using vague privacy policies,[658] it can be seen as an unfair trading condition by virtue of misleading the consumers which is held to be a violation as established in *AstraZeneca*,[659] then a case of abuse of dominance may be raised against the online platform, but using the principles established in unfair pricing through *United Brands*[660] and *Latvian Copyright Society*[661] in addition to those from unfair trading cases such as *DSD* and *GEMA* would allow a deeper understanding of the impact of excessive data collection.[662] This is because the end effect of the unfair trading conditions in the case of a zero-price online platform is that the user would be parting with an amount of data that is more than what the user would have been willing to part with initially.

This chapter proposes that competition law apply itself jointly with data and consumer protection legislations to engage with cases relating to data collection. The chapter also proposes a review of the *Google Shopping* case in light of the consumer harm not considered by the Commission or the GC. Perhaps, in the future different units of data can be denoted certain value which may make unfair pricing under Article 102(a) TFEU by itself applicable. For now, reliance on the ambiguity around economic value can actually be helpful in using it

[657] Marco Botta and Klaus Wiedemann, 'Exploitative Conducts in Digital Markets: Time for a Discussion after the Facebook Decision', (2019) 10(8) Journal of European Competition Law & Practice 465, 465–478.
[658] See Litman-Navarro (n 477).
[659] See *Astra Zeneca* Case C-457/10.
[660] See *United brands* Case 27/76.
[661] See *AKKA/LAA* Case C-177/16.
[662] See Sections 3.4 and 3.5.

to determine an unfair trading condition by joint application of both under Article 102(a) TFEU.

Under the DMA regime, Article 5(2) DMA combines the provisions relating to consent in Article 6 GDPR and Article 102 TFEU by preventing gatekeeper firms that fall under the scope of Article 3 DMA from refraining from processing or combining data unless active consent from users is obtained.[663] If firms such as Google and Facebook/Meta are designated as gatekeepers under Article 3 DMA in their respective markets, the way forward may be to use the DMA to keep their actions in check. The DMA is the correct blend of both competition and date protection law when it comes to a practice like unfair data collection policies of digital platform firms. This will be re-visited in Chapter 5 when the remedies for unfair data collection will be considered.[664]

Coming away from the DMA regime, based on past case laws and literature analysis, the need for joint application of data protection law, competition law and consumer protection law can be summarised using Table 1 below-

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Table 1: Joint assessment of excessive data collection

[663] See Section 5.3 in Chapter 5 for a detailed discussion on the DMA.
[664] See Section 5.5 of Chapter 5.

Using Article 102 TFEU in data collection	**Using competition law and other legislations: Suggestion for a way forward** **This table proposes the use of competition law with consumer protection and data protection legislations in the EU by considering the following close links**	
1. Common Goals	The principle of **fairness** exists in both competition, consumer and data protection laws. (Kalimo and Majcher, 2017) *Meta Platforms* case shows links between data and consumer protection. Use of unfair trading conditions is not limited to intermediate customers.	
	Proportionality and **necessity** in competition law from cases such as *SABAM, DSD* and *GEMA* can be equated with **data minimisation** in A.5 GDPR. (Volmer and Helmdach, 2017); (Robertson, 2018)	
	Transparency exists in A.7 GDPR, A.6 UCPD and in competition law through *AstraZeneca, Case C-457/10.* Data collection policies need to be clearer and consumers ought to know what they are giving up. (Lianos and Economides, 2021)	
2. More data, more power	The more data a firm gathers from consumers, the more its bargaining power increases from the advertiser side. (*Facebook Germany*); (Schneider, 2018); (Gormsen and Llanos, 2019) Noted in AG Rantos' opinion that market power leads to forced acceptance.	Behavioural Commitments can be imposed such as double opt-ins (Botta and Wiedemann, 2019) GDPR breach equates to Abuse of dominance under Article 102 TFEU.
3. Economic use of data	The GDPR does not consider the economic use of data and neither do consumer protection Directives apart from the DCD. (Helberger et al., 2017) Considers the exclusionary and exploitative harms through joint application.	

4. Holistic approach	Possibility of higher fines in Competition Law (10 percent under Reg. 1/2003). (Volmer and Helmdach, 2017). Use of Article 5(2) DMA which combines competition law with the GDPR.	Can deal with harms arising as a result of market power, privacy and data protection breach, and consumer protection. (Cabral and Lynskey, 2017)

With competition law intervention along in cases relating to excessive data collection, Figure 7 which shows a cycle of abuse can be broken.[665] The result of competition law intervention can be Figure 9.

Figure 9 shows that the cycle in Figure 8 can be broken through competition law intervention depicted through the different stages. If the starting point is the same as Figure 7 and competition law intervention takes place, then the platform will be forced to change their data collection policy leading to consumers getting back control over how their data is extracted as control is assumed to be granted via active consent of users. This will also lead to targeted advertising becoming more scrutinized as consumers are made more aware of all aspect of data collection. This will lead to platforms not having unlimited knowledge of its users and having limited bargaining power over advertisers and publishers. This will lead to increase in number of users who value trust, privacy and data protection leading to a more non-toxic environment where data protection becomes metric of quality.

[665] See 3.3.2.

(Space left blank to fit Figure 9 on one page)

With competition law intervention – **Figure 9-**

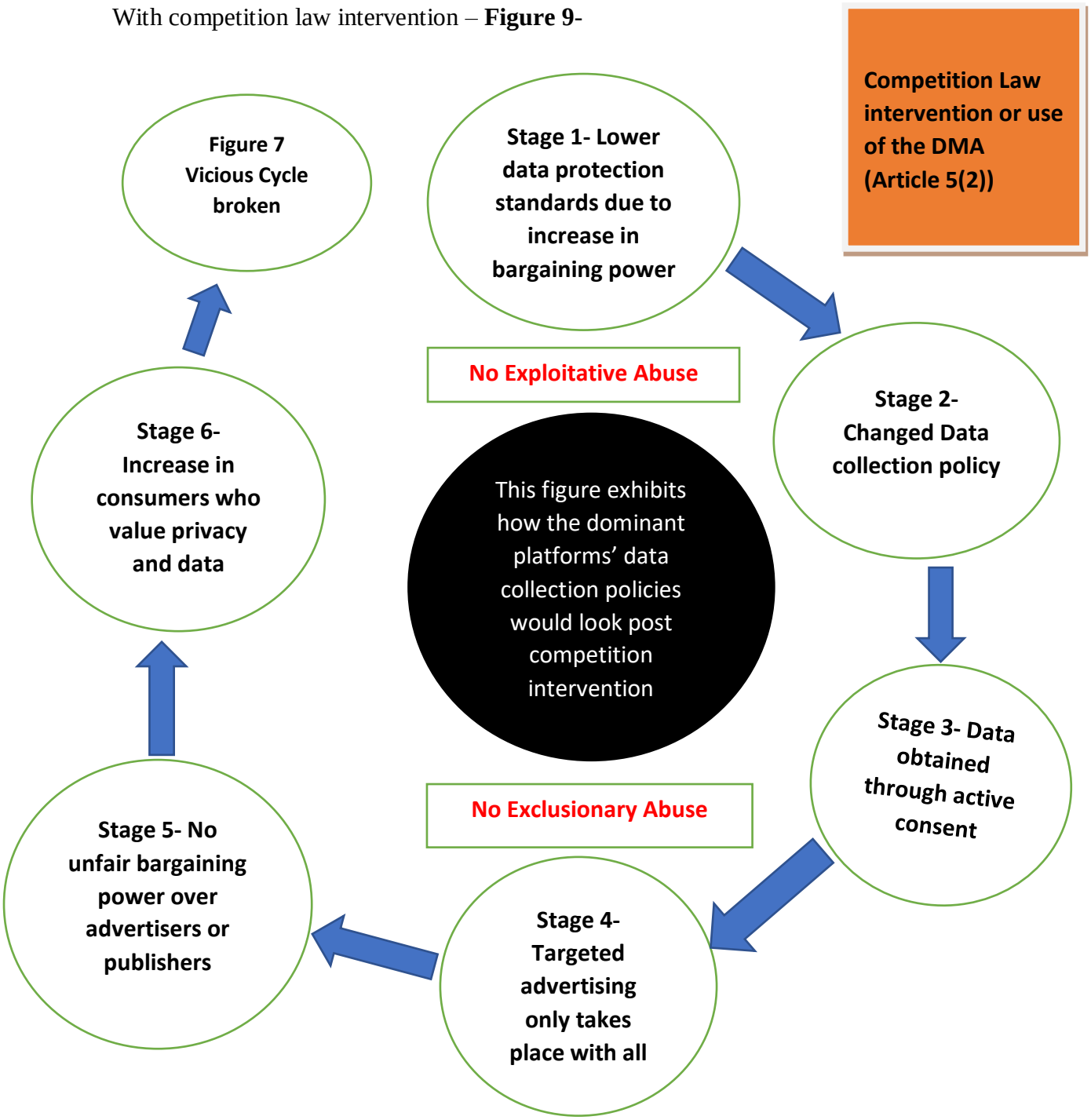

Figure 8

3.7 Conclusion

Dominant free online firms get the consent of consumers by using lengthy and complicated privacy policies.[666] This is caused due to the locking-in of consumers and their inability to switch to a different platform which is a result of the dominant position of the platform. In the case of social media platforms, multi-homing is not an option due to the lack of alternatives with a vast network such as that of Facebook.[667] A possibility is zero-homing or not using the facilities of any platform but that will mean missing out on content that has become necessary in the current digital age. Since regulation of these firms is a novel area and the DMA has recently come into effect, there is a need for competition law and data protection laws to work together to meet common goals. The harder it is for an individual to control their data, the more entrenched will the platform's dominance become leading to lower chances of new entrants entering the market successfully. This is because the markets have tipped in favour of the 'free' online platforms considered in this chapter.[668]

The CJEU's decision on *Facebook* has clarified whether Article 102 TFEU can be applied in cases where there is a breach of the GDPR. The chapter suggests the joint usage of competition law with the GDPR and consumer protection legislations owing to the common end goals that the three areas of law seek for when it comes to data collection by 'free' online platforms. The case of *Gormsen v. Meta* was decided in favour of the online platform but it is clear from the *Facebook Germany* case that such application is starting to get accepted across the EU and the Bundeskartellamt's case is not an exclusive one. The *Meta Platforms* case concerning the German Consumer Protection Agency is another example that was referred to in this chapter which furthers the point regarding joint usage of legislations in data collection cases.

One key contribution in this chapter was the consideration of an exploitative harm in the case of *Google Shopping* where the Commission and the GC seemed to have missed an opportunity to consider whether end consumers were harmed due to them being offered unauthentic search

[666] See Litman-Navarro.
[667] See *Facebook/Whatsapp* merger case.
[668] See Section 1.2.1 of Chapter 1.

results in return for their data being provided to Google.[669] It is unlikely that this assessment will take place in the CJEU's judgement either as this point has rarely been discussed in the works of previous commentators.[670] Considering the coming into force of the DMA and the path laid out for joint application of competition law with other legislations, future cases of consumer exploitation through unauthentic search results may be deterred. Article 5(2) DMA may play an important role in data collection cases as well.

Lastly, the use of unfair pricing may not be suitable in excessive data collection cases yet as it may be hard to fulfil the criterion established in *United Brands*. This is mainly due to the lack of knowledge on how different types of data can be assigned a value. However, unfair trading conditions may be applied more easily to excessive data collection cases. A suggestion is made to apply both jointly as nothing in Article 102(a) TFEU restricts the application to only one sub-area. This allows in using the principles established in unfair pricing regarding the economic value to assist in determining whether an unfair trading condition has been established in case the proportionality, necessity and transparency test are not feasible. However, if the GDPR and Consumer Protection Directives are used jointly with Article 102 TFEU, this may seem to be a simpler process to assess excessive data collection. The thesis has so far considered pricing related abuses where the use of data has played a significant role. The next chapter will consider the application of Article 102 TFEU to cases relating to predatory pricing by two-sided dominant online firms who are able to cross-subsidize their costs.

[669] See Section 3.2.2.
[670] See Marsden and Podzun (n 467) 42. They mention the possibility of an exploitative harm once.

CHAPTER 4: Predatory Pricing in platform markets: A modified test for firms within the scope of Article 3 of the DMA

4.1 Introduction

This chapter engages with a problem that may seem counter intuitive in terms of goals when compared to the previous chapters on the face of it. While in the previous two chapters, the aim was to make sure that consumers do not get exploited by dominant platform firms, this chapter engages with situations where the prices offered to consumers may be too low, and in some cases due to the sacrifice of profits. This type of behaviour can be called predatory pricing which is defined as the reduction of prices in the short run, in order to benefit from elimination of competition in the long run.[671] This chapter seeks to explore some of the diverging opinions regarding the occurrence and assessment of predatory pricing in digital platform markets that are usually two-sided in nature.[672] The main aim of the chapter is to understand whether digital platform markets require a different method of assessment when it comes to predatory pricing under Article 102 TFEU. The chapter also proposes a similar mode of assessment under the DMA in the form a new obligation within Article 5 or 6.

The chapter suggests that the traditional tests concerning predatory pricing in the EU can be modified when it concerns dominant digital platform firms with respect to having a price below Average Total Cost to have a presumption of abuse which then needs to be rebutted by the dominant platform taking into consideration the unique nature (low variable costs) of platform firms. To determine which firms would be assessed under this modified test by firstly considering the DMA regime, the chapter suggests the use of Article 3 DMA Regulation which

[671] Susan Gates, Paul Milgrom, and John Roberts, 'Deterring Predation in Telecommunication: Are Line-of-business Restraints Needed?' (1995) 16 Managerial and Decision Economics 427, 427-429.
[672] See Section 1.3.1 of Chapter 1.

establishes that certain firms may be considered gatekeepers or core platform firms that exhibit significant impact on the internal market from an EU perspective.[673]

Under the competition law regime, the chapter suggests using super-dominance as a metric to see which firms qualify for the modified test. The chapter suggests a test for both regimes due to the fact that both Article 102 TFEU and the DMA are complementary legal regimes and seek to prevent super-dominant platforms from further monopolizing digital markets through their conduct either by trying to maintain effective competition (under Article 102 TFEU) or by increasing contestability in digital markets (under the DMA).[674]

In order to determine whether this can and should be done, the chapter engages with the theory on predatory pricing by evaluating its development over the past century. Unlike the previous two chapters where conducts particular to online markets such as price personalization and consumer data collection were evaluated under the scope of Article 102 TFEU, this chapter reverses the approach and evaluates whether predatory pricing under Article 102 TFEU plays a role in cases concerning two-sided platforms which exhibit cross-subsidization of costs between their two sides. Cross-subsidization in this chapter refers to the ability of a firm that has a dominant position in more than one market to subsidize its losses in one market with profits from the other.[675]

The chapter will consider the development of the tests for predatory pricing from an EU lens but will also refer to the US tests for predatory pricing to see which one may be more suitable in digital platform predatory pricing cases. In order to do this the chapter will begin by considering different theories of predatory pricing. It will be seen the part one of this chapter that most of the theories regarding this conduct arise from US academics (lawyers and economists).

The motivation for this chapter arises from the lack of consideration of predatory pricing in digital markets in the four reports as discussed in chapter one.[676] New theories of harm have been considered when practices relate to other parts of Article 102 TFEU when the DMA is concerned under Article 5 and 6 obligations.[677] However, predatory pricing finds no mention

[673] See conditions under Article 3(1), (2) and (8) of the DMA later in Section 4.4.1.
[674] See Section 1.3 in Chapter 1.
[675] See Gates et al. (n 671) 430.
[676] See Section 1.5 of Chapter 1.
[677] Ibid.

in the legislation. Platform firms are unique in the fact that they mostly have high fixed costs and low variable costs as will be discussed later in Section 4.4 of the chapter.

A higher burden is suggested in terms of having a presumption of abuse when prices fall below ATC rather than Average Variable Cost (AVC) as is the case currently in the EU. Applying the current test under Article 102 TFEU, the law may be underinclusive for online platforms which are able to cross-subsidize their costs due to their two-sided nature.

This also follows from the fact that the Preamble of the DMA states that one of the characteristics of core platforms is that due to the economies of scale, the marginal costs for adding new business and end users is nearly zero.[678] Admittedly, there are various types of platforms and this definition may not be suitable to all of them. However, this chapter limits the scope of platforms to those core platforms as defined under Article 3 DMA.[679] Under the competition law regime, the chapter considers super-dominance as the qualification along with certain factors that pertain to digital platform markets based on Article 3 DMA such as the importance of the platform and the number of users of the platform. Within this method of assessing predatory pricing for core platforms, even if a price is found to be below ATC, the firm could be allowed to present an efficiency defence which exists under Article 102 TFEU but currently is not in place under the DMA regime. The proposed obligation will include the possibility of an objective justification being presented.

The chapter will comprise of five sections including the introduction and conclusion which are Sections 4.1 and 4.5 respectively. Section 4.2 of the chapter will discuss the law and economics of predatory pricing pertaining to traditionally single sided markets. The discussion will then be directed to cases decided by EU, UK and US courts that would be considered single sided markets, but are characterized by cross-subsidization. Section 4.3 will consider cases that resemble cross-subsidization in platform and non-platform markets to assess what role predatory pricing can play in two-sided markets. Section 4.4 suggests the use of a new method of assessment for core platforms when it comes to predatory pricing cases based on the characteristics of platforms. Section 4.5 will conclude.

[678] See Preamble of the DMA [2].
[679] Note that this chapter only considers 2 aspects of the DMA: 1) The qualification of firms as gatekeepers under Article 3, and 2) The fact that out of the 23 obligations listed in Article 5 and 6, none of them discuss predatory prices.

4.2 Law and economics of predatory pricing

When a firm sets prices below a measure of cost by sacrificing profits in the short-run, this is usually carried out to eliminate its competitor(s) (mostly entrants but could also be incumbents).[680] This pricing strategy is predatory in nature since the firm cutting its prices tries to prey on its competitor's inability to lower prices. For such behaviour to be successful in eliminating competitors, the firm reducing its prices ought to be able to recover or recoup its costs at a later stage.[681] This implies that the firm engaging in predatory pricing ought to have a certain amount of market power in order to be able to rely on its economic reserves or deep pockets.[682] Predatory pricing is also a conduct that allows a firm with market power to discipline smaller rivals or devalue the business of rivals who may later be acquired by the dominant firm for a lower price.[683]

Over the past century, there have been differing views on whether predatory pricing can be a successful strategy to eliminate competitors.[684] Koller also noted in an empirical study consisting of litigated cases alleging predatory pricing, that most did not have elements of predation and most convictions were due to the fact that the defendants found it cheaper to plead guilty.[685] However, a later study contradicted those findings.[686] There have also been differing views on the use of competition law to engage with predatory pricing.[687] The differing views can be summarised by a sentence from Daniel Crane's seminal paper: "*Predatory pricing law is, inescapably, a damned if you do, damned if you don't enterprise*".[688] Below cost pricing

[680] See Motta (n 278) 412-413.
[681] Louis Kaplow, 'RECOUPMENT, MARKET POWER, AND PREDATORY PRICING' (2018) 82(1) Antitrust Law Journal 167.
[682] John S. McGee, 'Predatory Price Cutting: The Standard Oil (N. J.) Case', (1958) 1 The Journal of Law & Economics 137. Note that Mcgee does not consider predatory pricing to be a rational strategy.
[683] Malcolm R. Burns, 'Predatory Pricing and the Acquisition Cost of Competitors' (1986) 94(2) Journal of Political Economy 266; See also Motta (n 175) 415.
[684] See Mcgee; See also Fiona Scott Morton, 'Entry and Predation: British Shipping Cartels', (1997) 6(4) Journal of Economics & Management Strategy, 679, who found that entrants with lesser financial resources will be faced with a price war showing evidence of the deep pocket story.
[685] Roland H. Koller, 'The Myth of Predatory Pricing: An Empirical Study', (1971) 4 Antitrust Law & Econ. Rev. 105. Only 26 out of 95 cases that had convictions showed elements of predation.
[686] Richard O. Zerbe, Jr. and Michael T. Mumford, 'Does Predatory Pricing Exist? Economic Theory and the Courts After Brooke Group', (1996) 41(4) Antitrust Bulletin 949, 949-964.
[687] Robert H. Bork, *The Antitrust Paradox: A Policy at War with Itself*, (New York: Basic Books, 1978). Bork argues that lower prices are the very goal of competition law; See also C. Scott Hemphill and Philip J. Weiser, 'Beyond Brooke Group: Bringing Reality to the Law of Predatory Pricing', (2018) 127 Yale L.J. 2048, for a more recent contrasting viewpoint.
[688] Daniel A. Crane, 'The Paradox of Predatory Pricing', (2005) 91 Cornell L Rev, 1.

may be necessary to achieve efficiencies and therefore, the law ought to balance the finding of an abuse with a possible efficiency defense.[689] Schmalensee also notes that it may be difficult to find the suitable model to assess predatory pricing considering that there are many economic models that have been developed, but the choice of a suitable model can be made by selecting models using careful organization and evaluation of evidence.[690]

Most of the literature on the theories of predatory pricing are from the US due to the early development of the concept.[691] One of the theories on predatory pricing is that the conduct is carried out by an incumbent with market power to create a reputation of being a predatory which allows it from deterring future entrants.[692] Another is that predation may be used to send a signal to a potential entrant who may not be aware of the cost structure of the market that the incumbent's cost are low, which would create apprehension to entering the market.[693] When concerning an entrant who has already entered the market, predation may be used by a dominant incumbent to jam signals regarding market demand leading to the entrant being unaware of what demand would be in a competitive setting.[694] This may also lead to the entrant choosing to exit the market due to absence of information regarding demand under normal circumstances.[695]

Another theory of predation is the deep pocket theory which refers to the large financial reserves of the incumbent which can allow it to fight off entry. This theory suggests that a firm with large financial reserves incurs losses with the purpose to force rivals to exit the market.[696] The financial reserves of the firm could be supplemented by its profits from other product or geographic markets which allows it to price below cost in the first market for a longer period till the entrant is eliminated.[697] Bolton et al. developed the deep pocket theory and suggested a financial market predation theory which not only includes the deep pocket story, but also

[689] Patrick Bolton, Joseph F. Brodley, and Michael H. Riordan, 'Predatory Pricing: Strategic Theory and Legal Policy', 88 Georgetown Law Journal, 2239, 330.
[690] Richard Schmalensee, 'On the Use of Economic Models in Antitrust: The ReaLemon Case, (1979) 127 U. PA. L. REv. 994, 995-97.
[691] The Sherman Act, 1890 is the oldest existing competition law in the world.
[692] Paul Milgrom and John Roberts, 'Predation, reputation, and entry deterrence' (1982) 27(2) Journal of Economic Theory 280, 281; See also F. M. Scherer, *Industrial Market Structure and Economic Performance* (2nd Edition, Rand-McNally, Chicago, 1980) in Milgrom and Roberts 303.
[693] See Motta (n 278) 418-419.
[694] Drew Fudenberg and Jean Tirole, 'A "Signal-Jamming" Theory of Predation' (1986) 17(3) The RAND Journal of Economics 366, 366-376.
[695] See Motta (n 278) 420.
[696] Paul Milgrom and John Roberts, 'New Theories of Predatory Pricing' in Giacomo Bonanno & Dario Brandolini (eds) *INDUSTRIAL STRUCTURES IN THE NEW INDUSTRIAL ECONOMICS* (1990) 112, 118-121.
[697] Ibid, 118.

suggests that the predator aims to dilute the equity of the prey leading to lessening of external finance.[698] These theories are relevant to any discussion on predatory pricing because they suggest the different motivations for the conduct. Most of the theories on predatory pricing have been able to influence the law on it as will be seen in section 2.2. The US method of assessment of predatory pricing is different to that of the EU in some respects. The chapter will consider the EU method of assessment followed by the US one to assess where they differ in their methods.

One way of prevent successful deep pocket predation from a policy stand point is to see if a lower price is maintained for a significant period of time, then the price may not seem to be anti-competitive as a new lower market price can be seen to have been established. In order to make sure that the lower price charged is maintained in the long-run, a policy may be devised which prevents price increases once a price has been set by an incumbent to respond to an entrant/competitor.[699] Such a price can be termed a quasi-permanent price reduction as coined by Baumol which prevents predatory behaviour since the price cutter dominant firm will have to consider a long-term loss as compensation for eliminating an entrant/ competitor.[700]

Predatory pricing involves risk taking by the predator firm as it is not guaranteed that the effect will discipline or remove competitors. While judging a firm's predatory activities, it is important to not only consider a cost based economic analysis of the situation, but it is also important to consider how the potential market entrants view the market and whether the threat of predation can act as a deterrent to a potential entrant.[701] This brings the attention to the law on predatory pricing. The legal approach of the EU will be considered first followed by the US to understand points of divergences. The different theories on predation will be mentioned throughout this chapter as they are also relevant in the test that will be proposed in Section 4.4 of the Chapter.[702]

4.2.1 EU approach in predatory pricing cases

[698] See Bolton et al. (n 689), 2239, 2330.
[699] William J. Baumol, Quasi-Permanence of Price Reductions: A Policy for Prevention of Predatory Pricing, The Yale Law Journal Vol. 89, No. 1 (Nov., 1979), pp. 1-26.
[700] ibid, Pages, 7-10.
[701] Harry S. Gerla, 'The Psychology of Predatory Pricing: Why Predatory Pricing Pays', (1985) 39 Sw L.J. 755.
[702] See Section 4.4.1.

Article 102(a) TFEU prohibits a dominant firm from imposing unfair selling prices which is the basis of the law on predatory pricing in the EU. In the case of *AKZO v Commission,*[703] the court ruled that 50 percent market share was said to have a presumption of dominance and that a firm with a dominant position cannot engage in below cost pricing to drive out competitors.[704] The case also established a presumption of abuse against prices set below Average variable cost (cost that varies depending on output) as the Court stated that a firm that sets such a price does so with the intent to eliminate competition.[705] The Court further established in the case that prices are above AVC but below Average total cost (ATC), such prices can be abusive if they are applied with an intent to eliminate competitors form the market.[706] This test was further clarified in *Tetra Pak II* where the Court considered it important to punish a dominant firm when it charges a predatory price (below AVC) without requiring proof of a realistic chance of recoupment as the aim of competition law is to maintain competition without waiting until actual elimination of competitors is carried out.[707] This case was an example of subsidizing of losses from one market where the firm was making profits to another one where it was offer prices below AVC. The case also reflects the deep pocket theory of predation.[708]

Subsequently, in *France Telecom,*[709] the court clarified this position as it found that a firm that attempts to pre-empt the market by pricing below cost while being in a dominant position will be said to have been engaged in predatory pricing. The Court also clarified that there is no need to prove the possibility of recoupment of losses particularly when the eliminatory intent of the firm is evident.[710] This is because the firm will already have the ability to reinforce its dominance after having weakened competition having applied prices below cost (AVC).[711] The Commission is however free to use any finding of the possibility of recoupment in cases where prices are above AVC but below ATC to come to a conclusion regarding whether there is an Article 102 TFEU infringement.[712] The court held that the intention to eliminate the competitor along with pricing below AVC were the main determinant of whether a firm engaged in

[703] Case C-62/86, *AKZO v Commission.*
[704] ibid [60].
[705] ibid [71].
[706] ibid [72].
[707] Case C-333/94 P, *Tetra Pak International SA v Commission of the European Communities* (*Tetra Pak II),* Paragraph 44.
[708] See Scott Morton, (n 684).
[709] Case C-202/07 P, *France Telecom v Commission*.
[710] ibid [110].
[711] ibid [112].
[712] ibid [111].

predatory pricing.[713] Some feel that the lack of the recoupment requirement in the EU is not considered the best way of dealing with predatory pricing cases as the rationality of predatory pricing hinges on the possibility of recoupment.[714]

These developments in the *France Telecom* case saw a difference in approach to predatory pricing in the EU compared to the approach in the US where the lack of possibility of recoupment alone was held not to be a valid excuse to prevent the dominant firm from reinforcing its dominance and therefore ruled it out as a condition to prove predatory pricing. In the case of *Post Danmark*,[715] the court held that pricing below Average variable (AVC), average incremental (AIC) and average avoidable cost (AAC) show evidence of a plan for eliminating competitors and a presumption of abuse.[716] The court followed the view from *Akzo* and held that if a price was below average total cost (ATC) but above AVC or AIC, there would no presumption of abuse but it can be demonstrated if the intention of the dominant firm was to eliminate its competitors and thereby prove that it was engaging in predatory pricing.[717] However, there was no finding of prices being predatory in *Post Danmark* as there was not sufficient proof of predatory intent since the prices were between AIC (proxy for AVC) and ATC. The case also paved the way for a more economics-based assessment of exclusionary abuse cases by establishing the 'as-efficient' competitor test which asks the question whether a competitor that is as efficient as the dominant firm will be excluded as a result of the prices charged below a certain measure of cost.[718] This also led to the finding that prices above ATC would not be anti-competitive as firms that are unable to match such prices are inefficient competitors.[719]

[713] Michal Gal, 'Below-Cost Price Alignment: Meeting or Beating Competition?' (2007) 28(6) European Competition Law Review (ECLR).
[714] Ibid; See also Emmanuel P. Mastromanolis, 'Predatory Pricing Strategies in the European Union: a Case for Legal Reform' (1998).
[715] See *Post Danmark* (n 233).
[716] Ioannis Lianos, Valentine Korah and Paolo Siciliani, *Competition Law: Analysis, Cases and Materials*, (Oxford University Press, 2019), P. 1004-1011.
[717] See *Post Danmark*, (n 233), [37]; See also Whish and Bailey (10th Edition) (n 124) 782-784.
[718] ibid [23] and [38].
[719] ibid [36].

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Figure 10 summarizes the EU approach to predatory pricing conducted by a dominant firm-

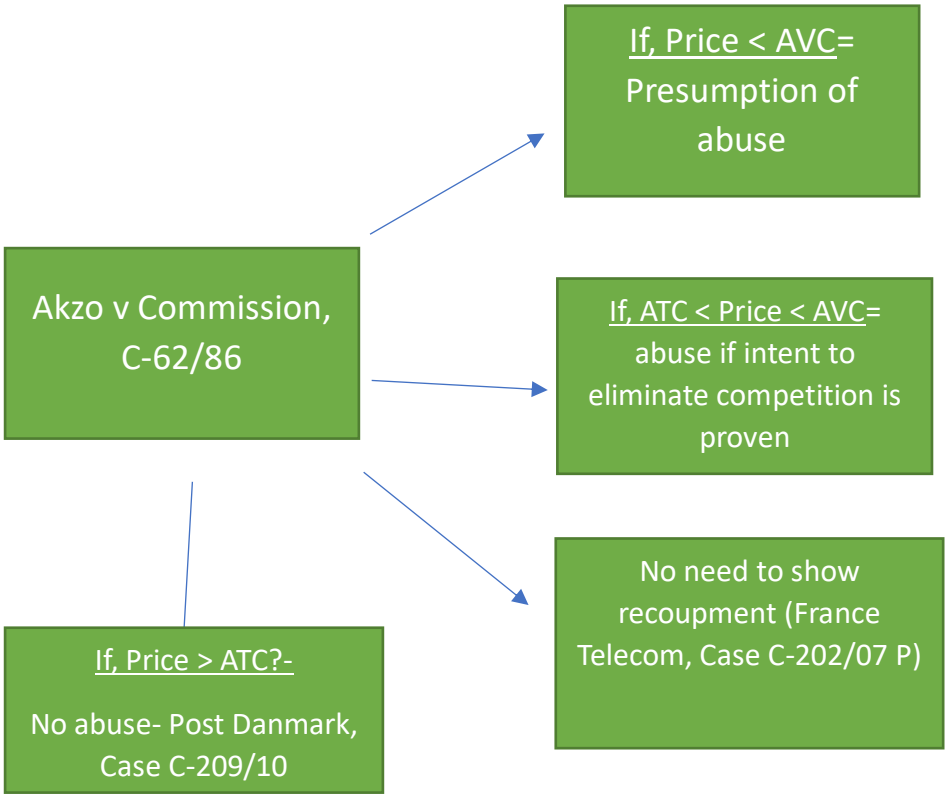

Figure 10: EU approach to predatory pricing

4.2.2 US approach

The historical context of predatory pricing in the US is relevant in understanding how the current test to assess it came about. In the US, predatory pricing was first seen in the case of *Standard Oil* where the activities of a dominant firm that engaged in monopolizing the petroleum industry through several acquisitions were brought into the purview of the Sherman Act, 1890,[720] which is the main US legislation that deals with competition law.[721] The Clayton Act, 1914 further codified certain conduct as harmful to consumers and the market.[722] Subsequently, a legislation was devised to protect small competitors from primary-line injury (conduct that affects competitors at a horizontal level) caused as a result of price discrimination by dominant firms which was called the Robinson-Patman Act, 1936.[723] In 1967, the case of *Utah Pie* was decided by the US Supreme Court in which it ruled that the intention to harm a competitor by offering predatory prices would be in violation of Section 2 of the Clayton Act.[724] The case was criticized for not assessing the extent of harm to competition and since then, the law on predatory pricing has undergone change gradually with many cases requiring the concept to evolve such as the need to show recoupment and the existence of dominance while engaging in predatory pricing being added as a requirement that need to be satisfied in order to find a firm guilty of predatory pricing.[725] The *Brooke Group* case decided by the US Supreme Court in 1993 is used as the current standard to assess predatory pricing cases in the US. In the case, the court held that in order to prove a case of predatory pricing, the plaintiff must prove both pricing below an appropriate measure of cost (average variable cost or average incremental cost) as well as a dangerous probability of recoupment.[726] The price-cost test was developed based on a seminal paper by Areeda and Turner who felt the need to devise a clear test for predatory pricing due to the failings of the court in previous cases.[727] The test consists

[720] The Sherman Antitrust Act of 1890, (26 Stat. 209, 15 U.S.C. §§ 1–7).
[721] Standard Oil Co. v. U.S., 221 U.S. 1 (1911).
[722] The Clayton Antitrust Act of 1914, (Pub.L. 63–212, 38 Stat. 730, enacted October 15, 1914, codified at 15 U.S.C. §§ 12–27, 29 U.S.C. §§ 52–53).
[723] The Robinson–Patman Act of 1936, (or Anti-Price Discrimination Act, Pub. L. No. 74-692, 49 Stat. 1526 (codified at 15 U.S.C. § 13)).
[724] *Utah Pie Co. v. Continental Baking Co.*, 386 U.S. 685 (1967).
[725] *Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209 (1993).
[726] ibid.
[727] Phillip Areeda and Donald F. Turner, 'Predatory Pricing and Related Practices under Section 2 of the Sherman Act' (1975) 88(4) Harvard Law Review 697 697-733.

of checking whether the price charged by a dominant firm is below short-run marginal cost (MC) or Average Variable Cost (AVC).[728]

The changing US approach to predatory pricing can be summarised using Figure 11-

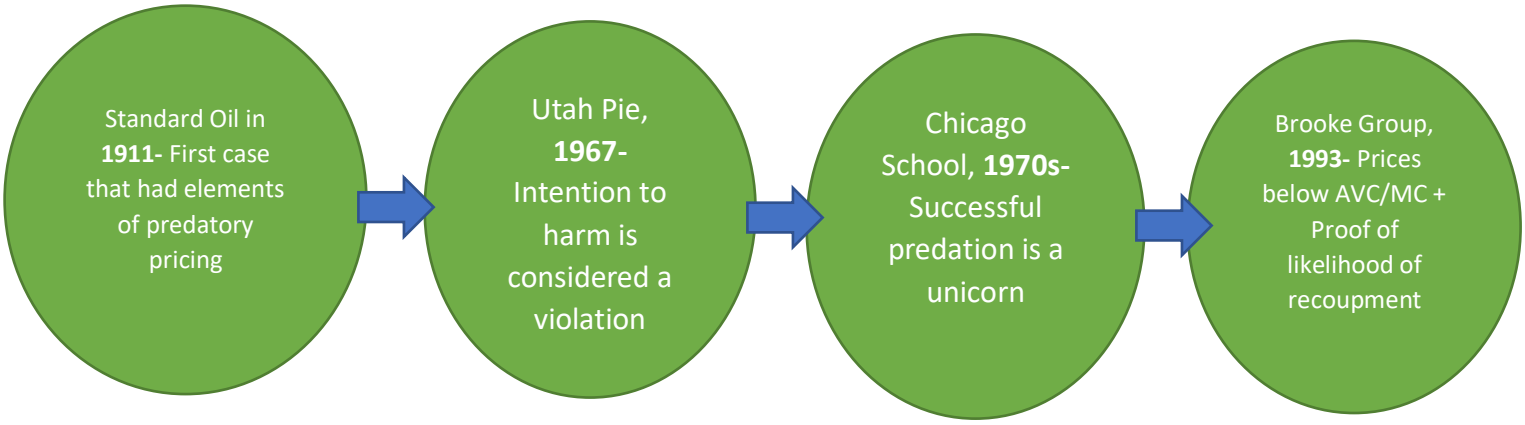

Figure 11: US approach to predatory pricing

American academics have had differing views on the real life applicability of predatory pricing and it being used as a way of monopolizing markets by firms with some arguing that successful predation is a myth while others argue that it is a hindrance to competition.[729] On the test itself, it is argued by some that the recoupment test coupled with the Areeda-Turner price-cost test (prices being charged below Average Variable Cost) will prevent inefficient firms from staying in the market and slowing down the market's overall growth and that predatory pricing is only a concept for theory and is rarely a successful pursuit.[730]

The Chicago school of thought (primarily Robert Bork) on predatory pricing is that it hurts the predator more than the prey and is not an effective way of monopolizing the market.[731]

[728] See Bolton et al. (n 689), 2239-60, for a more thorough description of the historical development of the predatory pricing price-cost test in the US.
[729] Aaron Edlin, 'Stopping Above-Cost Predatory Pricing', (2002), 111 (4) The Yale Law Journal 941, 991; See also Areeda and Turner (n 668) ; See also Robert Bork (n 628); See also Hemphill and Weiser (n 628).
[730] Einer Elhauge, 'Why Above-Cost Price Cuts to Drive Out Entrants Are Not Predatory—and the Implications for Defining Costs and Market Power', (2003) 112 Yale L.J. 681, 826.
[731] See Robert Bork (n 628).

Successful predatory pricing has been termed a unicorn or white tiger by Robert Bork and other thinkers from the Chicago school due its rare occurrence. The Post-Chicago school of thought on predatory pricing does not rule out the possibility of successful predation but questions the precision of price-cost tests and recognises the possibility of both false positives and false negatives.[732] While false positives lead to over enforcement where conduct that was not anti-competitive gets condemned, false negatives lead to under enforcement where harmful conduct is not condemned. Finding the balance has been a constant issue in competition policy. However, the US Supreme Court followed the Chicago school's approach to establish the test for predatory pricing with respect to setting the cost threshold that need to be compared to the price while determining whether it is predatory by holding as the first requirement that the price charged should be below marginal cost.[733]

The cases of *Brooke Group*[734] and *Matsushita*[735] (a case preceding *Brooke Group* which also considered the recoupment requirement) were major developments towards how recoupment was seen in US courts as they brought about the idea that without the possibility of recoupment existing, a case of predatory pricing cannot be proven. The idea of recoupment existing in different markets was rejected in both cases thereby eliminating the discussion regarding cross-subsidization of losses. The Court did however consider the possibility of recoupment of below-cost prices occurring in a different market in *Brooke Group* but ruled out the occurrence of the same in the case.[736] The rule established in *Brooke Group* was revisited in the case of *Weyerhauser* where predatory buying was justified based on the inability to prove the probability of recoupment.[737] In the US, the recoupment test established in *Brooke Group* requires it to be proven that there is an extremely high probability to recoup one's losses. According to the Court, it is important to not chill pro-competitive behavior by interfering in the working of the market unnecessarily.[738] One notable aspect in *Brooke Group* is that the Court did not accept that recoupment could occur in a different market as the dominant firm, Brown & Williamson cross-subsidized its losses in generic cigarettes through profits from the branded segment.[739] This was arguably not a wise decision by the Court as this was a clear

[732] Jonathan B. Baker, 'Predatory Pricing after Brooke Group: An economic perspective' Antitrust Law Journal (1994) 62(3) 585, 603.
[733] ibid 592-598.
[734] See Brooke Group (n 666).
[735] *Matsushita Electric Industrial Co. v. Zenith Radio Corp*., 475 U.S. 574 (1986).
[736] See Brooke Group (n 666); See also Baker (673) 595-600.
[737] *Weyerhaeuser Company v. Ross-Simmons Hardwood Lumber Company*, 549 U.S. 312 (2007).
[738] See Brooke Group (n 666) [225].
[739] ibid [214-219].

failure to notice a case of deep pocket predation due to the over reliance on the recoupment requirement in the same market.[740]

Edlin argues that due to the current tests, there will never be any competitive threat to dominant firms allowing consumers to be exploited by very powerful firms for two main reasons.[741] The first one being the assumption that price cuts are good for consumers in the short run involves a fundamental flaw as they are only done to combat a threat from an entrant.[742] His second claim is that there is no single appropriate measure of cost and by imposing AVC/MC as the appropriate measure of comparison with price in the Areeda-Turner test, cases involving situations where a monopoly firm engages in predatory pricing by pricing above AVC but below ATC can be found to be predatory as the intent of the pricing is not questioned.[743] Therefore, he suggests that the court take a more flexible approach while comparing price to cost.

On the other hand, Crane cautions against overdeterrence as he feels that too many plaintiffs use predatory pricing suits to deter socially beneficial price cuts in order to avoid pricing their products at a lower cost.[744] This is because firms will be reluctant to reduce prices knowing that there may be a allegation of predatory pricing that may come their way. He also is reluctant to let a jury decide on matters that might seem too complicated for them.[745]

The approach that is used in the US courts is one where the Areeda-Turner price and cost comparison test is used along with the need to prove probable recoupment test which makes it hard for plaintiffs to prove a case of predatory pricing against dominant firms as there is a high burden of proof. It also discourages plaintiffs from bringing cases of predatory pricing due to the higher burden of proof and evidence required to prevail.[746] This leads to the conclusion that US courts only allow predatory pricing claims when there is proof of predatory pricing carried out by a dominant firm already having achieved the goals which may have already led to the exit of efficient competitors.[747] The approach in the US has been one of apprehension when it

[740] ibid [224].
[741] Aaron Edlin, 'Predatory Pricing: Limiting Brooke Group to Monopolies and Sound Implementation of Price-Cost Comparisons', (2018) The Yale L.J Forum 1001, 1003.
[742] ibid 1007-1011.
[743] ibid 1012.
[744] See Crane (n 629) 36, 39.
[745] ibid.
[746] Brenda S. Levine, 'Predatory Pricing Conspiracies After Matsushita Industrial Co. v. Zenith Radio Corp.: Can an Antitrust Plaintiff Survive the Supreme Court's Skepticism?', (1988), 22(2), THE INTERNATIONAL LAWYER.
[747] ibid.

comes to charging firms with predatory pricing as the tendency has been to err on the side of underenforcement rather than overenforcement due to the belief that markets will eventually correct themselves. On the other hand, the EU's approach is different to that of the US with regard to placing a lesser burden on plaintiffs.

4.2.3 Difference in approach

This difference in approach between the US and the EU towards using recoupment as a requirement has been instrumental towards firms being held to a higher standard in the EU in comparison to the US when it comes to judging predatory pricing cases. For example, the case of *Qualcomm* which involved an issue concerning the predatory pricing of baseband chipsets, was decided based on a price-cost test and an intention to eliminate a rival and a fine of 242 million euros was levied by the European Commission.[748] This would not have happened in the US due to the requirement of showing recoupment as a possibility. Courts in the US have on the other taken a much softer approach on firms as they worry about causing a disruption to business. This can be evidenced by the decision passed in *Qualcomm's* case in the US.[749] The case was ruled by the court of appeals in favour of the chipmaker, Qualcomm instead of the Federal Trade Commission (FTC) because they weren't able to prove that there were considerable negative effects to consumers using the rule of reason approach.[750] However, it is interesting to note that the acting chair of the FTC, Rebecca Kelly Slaughter issued a statement suggesting that the court of appeals did make an error in its conclusion but chose to not further appeal the case to the US Supreme Court while at the same time acknowledging the need to take action against abusive actions of dominant firms in high-tech markets.[751]

Predatory pricing is akin to a two-stage investment strategy according to Petit and Neyrinck and is more pervasive than is predicated by industrial organisation theory if behavioural aspects

[748] European Commission, Antitrust: Commission fines US chipmaker Qualcomm €242 million for engaging in predatory pricing, 18 July 2019. This case will be discussed in Section 4.3.
[749] Don Clark, 'Qualcomm Wins Reprieve in F.T.C. Antitrust Case with Appeals Court Ruling, New York Times, (August 2020), https://www.nytimes.com/2020/08/11/technology/qualcomm-antitrust-appeal-ruling.html#:~:text=the%20main%20story-,In%20Victory%20for%20Qualcomm%2C%20Appeals%20Court%20Throws%20Out%20Antitrust%20Ruling,monopoly%20position%20in%20wireless%20chips.,; Case was related to abuse of dominance but not predatory pricing.
[750] *F.T.C v Qualcomm Inc.*, 411 F.Supp.3d 658 (2019).
[751] Federal Trade Commission, Statement by Acting Chairwoman Rebecca Kelly Slaughter on Agency's Decision not to Petition Supreme Court for Review of Qualcomm Case, March 29, 2021.

are taken into consideration.[752] The outcome of predation can be irrational and not have definite economic gains at the end. The reasons for engaging in predation can be other than just recouping later such as to scare off competitors.[753] EU competition law accommodates predatory pricing claims that do not hint at possible recoupment in the future unlike the US law.[754]

Recently, several US academics argued to give up the recoupment requirement for platform markets as they feel that they do not reflect the economics of platform markets.[755] Among them, the most famous argument in recent times can be said to have been made by the current Chairwoman of the FTC, Lina Khan,[756] who criticized the historical development of the recoupment requirement in US predatory pricing cases as it fails to consider motives other than direct profit maximisation by a dominant firm.[757] For platform markets, she argues for a presumption of abuse rule when a price is below cost but refrains from engaging on which measure of cost would be appropriate.[758] This chapter agrees with Khan's argument regarding the recoupment requirement and the need to have a presumption of abuse rule for platform markets and will explore the ideal cost measure in Part 4 of the chapter. When considering platform markets, it is important to consider their two-sidedness as well. When related to predatory pricing, cross-subsidization is an aspect that may play a role in platform markets as it has done in past cases.

4.3 Cross-subsidization and predation cases: Relation to predation in two-sided platforms

The CJEU considered the issue of cross-subsidization in the case of *Post Danmark I*. The issue pertaining to cross-subsidization dealt with Post Danmark subsidizing losses made in the unaddressed mail market with its profits from the addressed mail market on which it had a

[752] Nicolas Petit and Norman Neyrinck, 'Behavioural Economics and Abuse of Dominance: A Proposed Alternative Reading of the Article 102 TFEU Case-Law', ÖZK 2010 / 6, Abhandlungen, 203-209.
[753] See Harry Gerla.
[754] See Petit and Neyrinck, (n 752).
[755] Shaoul Sussman, 'Prime Predator: Amazon and the Rationale of Below Average Variable Cost Pricing Strategies Among Negative-Cash Flow Firms' (2020) 8(2) Journal of Antitrust Enforcement 447; See also Sandeep Vaheesan, 'Reconsidering Brooke Group: Predatory Pricing in Light of the Empirical Learning' (2013) 12 Berkeley Business Law Journal 81.
[756] Lina Khan, 'Amazon's Antitrust Paradox' 126 Yale L. J. 710 (2017).
[757] Ibid, 730.
[758] ibid, 791-92.

monopoly.[759] The CJEU held in the case that when prices charged to some customers are above average incremental cost (AIC) but below average total cost (ATC), but prices charged are above ATC for other customers, the overall effect will not be deemed to be anti-competitive unless it can be proven that exclusionary effects are likely.[760] Therefore, the CJEU suggests that when cross-subsidization of cost occurs and price are above ATC, such prices may not be deemed predatory unless there are other aspects that lead to such a finding.

The current paper disagrees with this principle established in *Post Danmark I* as different markets may require different tests to assess predatory pricing. Bergqvist noted that Post Danmark was engaged in the practice of artificially boosting their prices on one side in order to not fall below their average incremental cost which creates a fake notion of efficiency of the firm.[761] This also led to the elimination of the single product competitor in the unaddressed mail market.[762] He suggests that prices below LRAIC/ATC can be presumed to be abusive in multi-product markets so that the as efficient competitor (AEC) test is reflected accurately.[763] Not doing so will lead to attributing the wrong costs for the firm that engages in cross-subsidization. This paper agrees with the characterization made by Bergqvist and argues that this ought to also be translated to two-sided online platforms in order to reflect the real cost of the platform. This section will further illustrate the relationship between cross-subsidization and predatory pricing which plays a major role when two-sided platforms are concerned.

Cross-subsidization refers to offsetting or subsidizing losses in a place different from where the loss is incurred.[764] When cross-subsidization occurs in two-sided markets, it may not mean that one side is better off if they stop subsidizing the other side as explained by Wright in his example of heterosexual nightclubs where the men pay to enter while women enter for a lower cost or no cost. The lowering of price for men or disincentivizing of women by charging them a higher price might lead to an inefficient outcome for both sides. Similarly, the asymmetric pricing structure of a platform may be a method for deriving demand from both sides leading to an overall benefit.[765]

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[759] Case C-209/10, *Post Danmark A/S v. Konkurrencerådet (Post Danmark I),* [4-8]. It is also important to note that Post Danmark had its origins based on a former legal monopoly, [24].
[760] ibid [35-44].
[761] Christian Bergqvist, 'Post Danmark – More Than Just Another Serial Infringer' (June 13, 2023). Available at SSRN: https://ssrn.com/abstract=4477447.
[762] ibid 20.
[763] ibid 21-23.
[764] See Gates et al. (n 671) for the definition.
[765] Julian Wright, 'One-Sided Logic in Two-Sided Markets' (2004) 3(1) Review of Network Economics 1, 7-9.

However, cross-subsidization can lead to a finding of abuse of dominance if a firm uses its dominance in one market to attempt to become dominant in an adjacent or related market by deliberately making losses in the market where it isn't dominant. This is similar to a situation when a firm has deep pockets or is able to take out large bank loans to fund entry into a market.[766] However, the difference is that there is knowledge of existence of another market which is in many of the following cases an adjacent market. Referring to some cases that exhibit this may be helpful in understanding the concept.

Tetra Pak II is one of the prominent examples of a situation where a firm that was dominant in one market (90 % dominance in the aseptic carton market) used that dominance to subsidize their losses in the adjacent market (non-aseptic carton market) where it was the market leader holding 50-55 % market share, incurred deliberate losses to eliminate its competitors.[767] This was a case where the intention to eliminate the competitor was proven (prices were below AVC) by the Commission as they showed a link between dominance in one market and the ability to abuse an adjacent market which allowed the finding that this was a case of predatory pricing.[768]

Another case that concerns cross-subsidization is the British case of *First Edinburgh/Lothian*.[769] In the case, the two companies 'First' and 'Lothian' had a dominant position in the 'Surrounding Edinburgh and South East Scotland' region and the 'Greater Edinburgh' region respectively while having smaller market shares in the other regions. Lothian claimed that First engaged in predatory pricing by adopting a loss-making strategy in the Greater Edinburgh market by pricing below AVC in some areas and between AVC and ATC in others in that market.[770] It was claimed that First used its dominance in the Surrounding Edinburgh market to subsidize its losses in the Greater Edinburgh market in order to try to gain more share of the subsidized area. The OFT found that it had offered lower fares and made losses over a period, but it concluded that this was not done with a predatory intent since the promotional pricing practice was to allow First to compete with Lothian in the greater

[766] See Bolton et al. (n 689).
[767] See *Tetra Pak v Commission.*
[768] ibid [27-33].
[769] *First Edinburgh / Lothian*, Decision of the Office of Fair-Trading, No. CA98/05/2004, Case CP/0361-01, 29 April 2004.
[770] ibid [60-63].

Edinburgh market and not to eliminate it.[771] The view of the OFT in this case seems fair as First did not hold a dominant position in the market where it was sacrificing profits.

In the US Supreme Court case of *Matsushita v. Zenith,*[772] the case concerned Japanese TV manufacturers that jointly decided to impose price cuts in the American TV market in order to increase their presence and drive out local competition for a period of over 15 years. While the case largely dealt with the issue of horizontal collusion among the Japanese firms, one of the other points of importance was whether the Japanese firms engaged in predatory pricing by cross-subsidizing their losses to the Japanese TV market where they sold the television sets for artificially high prices in order to be able to subsidize the American market. The court ruled that the Japanese firms did not engage in predation but instead engaged in hard competition as there was no evidence of them being able to recoup the losses made. The court also ruled out the possibility of recouping the losses even if American competitors were eliminated by stating that the Japanese firms' ability to recoup losses made over 15 years would be very limited.[773] This case was one of the landmark cases in American Antitrust jurisprudence which led to the formulation of the recoupment test in *Brooke Group.*

Noting that all three cases are from different jurisdictions, there are diversions of opinion with respect to finding whether a cross-subsidizing practice can be considered predatory. One of the major differences in *Tetra Pak II* and *Matsushita* is regarding the evidence of predation. In the former's case, the intent to predate was confirmed by the duration, continuity and scale of the losses made by the subsidizing firm,[774] whereas in the case of the latter, clear evidence of loss making was portrayed as engaging in hard competition. This showcases the clear difference in approach between the US and EU with respect to dealing with predation. The approach taken by the UK competition authority (Office of Fair Trading (OFT))[775] in *Lothian* meets both these approaches midway as cross-subsidization was recognised in the case but it was held that elimination of the competitor was not the final intention due to lack of evidence showing the same. The dominance of the firms has been one of the issues that has been lacking in the case

[771] ibid [66-75]. The Office of Fair Trading referred to its internal documents to prove that it had no predatory intent in the case. It was found that First did not consider itself capable of eliminating Lothian from the market.
[772] See *Matsushita* case.
[773] M. Steven Wagle, 'Predatory Pricing, A case study: *Matsushita Electric Industries Co. v. Zenith Radio Corporation*', (1989) 22 Creighton Law Review.
[774] See Tetra Pak v Commission (n 648) [190].
[775] This body was the predecessor of the Competition and Market Authority which is the current Competition Authority in the UK.

of *Matsushita* since the case dealt with several firms which directed the case towards issues dealing with collusion.

With regard to *Lothian* and *Tetra Pak II*, both cases concerned firms that were dominant in one market which were trying to become dominant in the other. In both cases, the OFT and the EU Commission respectively agreed that the firm had incurred deliberate losses. However, in the case of the former, the OFT used confidential documents to come to its finding that First Edinburgh had a lack of intent to predate, whereas, the Commission assessed the intent in the case of the eliminatory effect on the market to come to its finding. One notable aspect in the two cases is the fact regarding the market shares of the dominant firm. While in *Lothian* the firm in question had 70 percent market share in the related market and 20 percent market share in the loss-making market, it had only one main competitor in that loss making market.[776] In *Tetra Pak*, the firm had a 90 percent market share in its dominant market and a 50 percent market share in the non-dominant market with its closest competitor having 27 percent market share before it engaged in cross-subsidization.[777] Having an able competitor can be seen to be a metric for competition authorities to assess whether a dominant firm has the ability to cause an adverse effect to competition in a related market through cross-subsidization. This assumption can be used to answer whether a dominant firm uses cross-subsidization and promotional pricing to eliminate competitors or to establish a presence and compete with the existing firm(s).

A contrasting case to this one is of *Napp Pharmaceuticals* in which the OFT and Competition Appeal Tribunal (CAT) concluded that the firm, Napp had discounted sales to a predatory level in one market segment while covering the losses made by overcharging on a different market segment.[778] The firm had enjoyed a dominant position in both markets which allowed the OFT and CAT to reach their decision more easily compared to situations where firms are only dominant in one market. One takeaway from this case is that a firm that is dominant in both markets should not cross-subsidize one side by charging excessive or unfair prices on the other.

Cross-subsidization is an issue that has also been dealt with by regulatory authorities. One example is of the case of *Severn Trent laboratories* in which UK's Water Services Regulatory Authority (Ofwat) accepted structural commitments from the firm that was accused of using profits from an affiliated company to subsidize predatory prices to win water analysis services

[776] See First/Lothian [35].
[777] See *Tetra Pak v Commission,* (n 648) [191].
[778] *Napp Pharmaceutical Holdings Limited v Director General of Fair Trading,* Case No. 1001/1/01.

contracts.[779] Ofwat referred to UK's Competition Act, 1998 to decide that the predatory pricing was possible due to the structural link between firm and its subsidiary and accepted a divestiture that was proposed by the parent firm, Severn Trent.[780] Barring the commitments, a case of predatory pricing through cross-subsidization would have been established, but since the commitments were considered satisfactory, a case was not pursued.[781] Predatory pricing cases remedies have mostly been in the form of fines being imposed. A structural remedy such as this also has the scope of rectifying the harm caused to the market.[782]

One case that can be considered before engaging on the relevance of this section to digital platform markets is the case of *Aberdeen Journals*[783] which is a case that resembles how most digital platforms function due to the presence of an advertising side and a reader side. In the case, the firms were engaged in the supply of high-quality free newspapers and made their revenue through advertising making it a clear case of cross-subsidization. The dominant firm reduced the price to advertise in its newspaper with a view to restrict or eliminate the entrant from the market. It was found that the dominant firm had abused its dominance by engaging in predatory pricing on the advertisers' side of the market which would affect the supply of newspapers to customers.[784] By relying on *Tetra Pak II* and *Napp Pharmaceuticals*, the CAT ruled out the need to consider the possibility of recoupment and found the ability of a firm to leverage its dominance in one market to protect its market share in the other to be a form of recoupment in itself.[785] However, applying the Filistrucchi approach to this case, the result could have been different as the two sides of the Newspaper market do not have a direct transaction between each other. This would require two distinct markets to be defined and for predatory pricing to be assessed separately on each. The approach in *Aberdeen Journals* takes into consideration the effect of below cost pricing on the market and considers how competitors would be affected by the practice which seems to be more ideal compared to a form-based approach that requires markets to be separated when a direct transaction does not take place. The approach taken to judge the case resembles one that can be taken towards dealing with platforms as the activities in one side of the market affected the other side. It is important to

[779] OFWAT, Decision to accept binding commitments from Severn Trent PLC, Severn Trent Water Limited and Severn Trent Laboratories Limited, (17 January 2013).
[780] ibid.
[781] See Whish and Bailey (n 124) 793.
[782] See Section 5.4.4 of Chapter 5.
[783] *Aberdeen Journals Ltd. V. OFT*, [2003] CAT 11.
[784] ibid.
[785] ibid [437-445].

consider the occurrence of cross-subsidization in platform markets as it helps inform the ideal test to be used in such markets considering how firms may be able to shift their costs.

4.3.1 Cross-subsidization and predation: Relation to two-sided markets

In two-sided markets where cross-subsidization occurs, both the price level (the sum of the two prices expressed in the same unit of measurement) and price structure (ratio of the two prices) determine the firms' profits.[786] Evans and Noel suggest to compare the overall price level with the joint marginal cost of the two-sides of the market as a test for predation in a two-sided market in transaction markets.[787] An Areeda-Turner test for two-sided markets would entail looking at the net profit or loss made after computing the prices charged to both sides of the market in order to see whether the weighted average profit should be negative.[788]

In the case of Daily Times-Independent price war,[789] it was held that prices were predatory by looking only at the readers' side of the market and not looking at the advertisers' side of the market.[790] By not considering a two-sided price-cost margin test, there is a failure to account for the net gains that are made. It is important to define the relevant market in both sides in markets where there are two distinct sides. In *L'Equipe versus Journal du Sport*, a case involving a firm with a two-sided platform, the French competition authority based its decision on the predatory intent of the firm and not on whether the pricing on the customers' side and on the advertisers' side was predatory.[791] It argued that the actions were economically irrational and could only have been done to eliminate the competitor.

Behringer and Filistrucchi argue that in the case of *Times-Independent*, the Office of Fair Trading (OFT) utilised the Areeda-Turner test inappropriately while in the case of *Aberdeen Journals* it did so appropriately with the main difference being that the OFT considered only one market to assess predation in the case of Times-Independent while it considered both sides of the market in Aberdeen Journals. Even though it was held in both cases that the dominant

[786] ibid 13-21.
[787] See Evans and Noel (n 57).
[788] See Behringer and Filistrucchi (n 728) 11-12.
[789] Tim Kelsey, 'Newspaper price war takes to TV (CORRECTED)' (The Independent, June 1994) https://www.independent.co.uk/news/newspaper-price-war-takes-to-tv-corrected-1425490.html.
[790] ibid.
[791] Decision by the French Competition Authority no. 14-D-02 of 20 February 2014, available on http://www.autoritedelaconcurrence.fr/pdf/avis/14d02.pdf.

firm is engaged in predation, the formers' case is one in which the OFT would not have considered the practice predation if the test had been applied for both sides of the market.[792]

The success of digital platforms can be based on the idea of subsidizing one side by recouping the losses from the other side or from a different part of its businesses. Evans and Schmalensee argue that any platform that provides two groups of users with a service must be viewed jointly when deciding whether their activities are anti-competitive to avoid errors.[793] They further argue that the services of a two-sided platform should never be seen in isolation because they are competing with other providers of the same service on two sides and not with one-sided markets. That argument is based on the idea that prices and costs in two-sided markets are set based on assessment of both sides while one-sided markets base their prices on only one side.[794]

The US recoupment test may not be satisfactory when dealing with a firm with more than one side as it makes a possibly strict assessment method even stricter. Rysman notes that the high standard of proof in US predatory pricing cases due to the *Brooke Group* test make it unlikely for the test to have any effect on two-sided markets as it is already hard to prove predatory pricing cases in one-sided markets.[795] Especially considering the size of firms that come under scope of Article 3 DMA, using a high standard of proof such as the US test of showing probable recoupment will defeat the purpose of creating a new method of assessment.

Since the law requires legal certainty, this chapter proposes that currently, only firms that fall within the scope of Article 3 DMA be assessed using the P < ATC= presumption of abuse standard. There is scope of an objective justification to be presented which will prevent cases where there are efficiencies or benefits to consumers. The recoupment requirement that needs to be shown in US predatory pricing cases may not have a role to play when core platforms are concerned considering the impact that a predatory price will already have. To have an additional criterion to show recoupment will defeat the purpose of moving away from the current under inclusive approach.

As seen previously,[796] in the EU, the test to assess predatory pricing has been modified after *France Telecom* to include cases where price charged is between AVC and ATC. Similarly,

[792] Stefan Behringer and Lapo Filistrucchi, Areeda-Turner in Two-Sided Markets (June 13, 2014) CentER Discussion Paper Series No. 2014-038.
[793] David S. Evans and Richard Schmalensee, 'Applying the Rule of Reason to Two–Sided Platform Businesses', (2018) 26 U. Miami Business. Law Review (2018) 1, 1-15.
[794] ibid.
[795] See Rysman (n 63) 139.
[796] See Section 4.2.2.

another modification is required with the emergence of online platform firms that have similar characteristics to telecommunications firms in terms of strong direct and indirect network effects depending on the type of platform.

In the past, the Commission has taken a more inclusive approach when considering cost measures. An example of that is the 2019 case of *Qualcomm* where it decided to include all R&D costs within the scope of LRAIC which was used as a proxy in this case.[797] The US Chipmaker, Qualcomm was fined 242 million Euros for abusing its dominant position by engaging in predatory pricing.[798] The case concerned Qualcomm, which was the dominant firm in the chipset supplier market and Icera, an entrant that was posing a growing threat to Qualcomm's chipsets due to its high data rate performance chipsets which had great growth potential in Universal Mobile Telecommunications Segment (UMTS) chipsets market.[799] Qualcomm dealt with this threat by pricing below cost on the 'leading-edge' Mobile Broadband (MBB) UMTS in which Icera was gaining market share since it offered advanced data rate performance (an innovation compared to what was currently offered) with its chipsets at competitive rates. Qualcomm also focused on offering below-cost prices to the two main leading edge Original Equipment Manufacturers (OEM), Huawei and ZTE. This led to Icera being unable to compete and being acquired by a larger firm. It also led to stifling of innovation as Icera could not continue producing better quality chipsets in the leading-edge segment.

In its assessment, the Commission used a revenue-based and volume-based R&D allocation to determine LRAIC since Qualcomm did not provide internal costs ex-ante.[800] During the case, Qualcomm had disputed the Commission's method of computing LRAIC by claiming that this would 'move the goal post' of the price-cost test.[801] This was rejected by the Commission and it confirmed that Qualcomm's actions were predatory in nature by referring to internal evidence which suggested that it acted with an exclusionary intent to limit Icera's growth.[802] The actions were found to be abusive by relying on the *France Telecom* formulae of Price < ATC/LRAIC is predatory if there is an intent to predate.[803]

In the case, the profit sacrifice to eliminate a competitor in the leading-edge segment was subsidized by normal rates in the Smartphone Segment in which Qualcomm did not yet face a

[797] CASE AT.39711 *Qualcomm (predation)* [786-787].
[798] ibid.
[799] ibid.
[800] ibid [933-34].
[801] ibid [936].
[802] ibid [1138-70].
[803] ibid [1116].

competitive threat. In addition to internal evidence of Qualcomm's intent, the Commission found Qualcomm's prices to be below LRAIC to a period that coincided with Icera's acquisition by a larger firm which led to phasing out of the development of innovative leading-edge MBB chipsets.[804] By limiting Icera's ability in the leading-edge MBB market segment through cross-subsidization, Qualcomm was able to prevent it from challenging it in the other market in which it had no competition yet by leveraging its dominant position in that market.[805] This case is similar to *Napp Pharmaceuticals* as the dominant firm sacrificed short-term profits in one market to increase its dominance in another market. In both cases, it can be seen that the firm recoups its losses from the side of the market in which it is dominant while pricing below cost on the side that it tries to become dominant or remove competition.[806] Even from a US perspective where showing probable recoupment is one of the conditions to prove predatory pricing under the *Brooke Group* test, recoupment of losses on the other side can be a suitable metric of judging whether prices can be considered predatory on one market. However, this approach was not followed in *Brooke Group*.[807]

An example of a case that was initiated against a zero-price online platform is the case *of Bottin Cartographes* in France. In a two-sided market, any claims regarding predatory pricing require the pricing on both sides of the market to be considered irrespective of whether one single market is defined or two separate markets are defined. This section will explain an example of erroneous application of predatory pricing law to a two-sided market (Free maps to consumers cross-subsidized by advertisers) can be seen in the French case of Google and Evermaps where a French Court looked at only one side of the market where Google had been providing its map service for free and concluded that the practice was predatory. It failed to consider other sides of the market such as advertising which Google was using to subsidize the maps.[808] An error of under enforcement may also occur when only one side is looked at in a situation where a platform has its price above marginal cost in one side of the market and less than MC on the other but is making an overall loss.

The case of Google subsidizing its maps using its revenues from other areas is a clear example of cross-subsidizing by an online platform firm. As to whether that practice can amount to

[804] ibid [989-99].
[805] Pietro Crocioni and Liliane Giardino-Karlinger, 'Predation as a leveraging abuse-filling the gap between economic theory and antitrust enforcement' (2022) 1(1) Competition Policy International.
[806] ibid.
[807] See Brooke Group case (n 666) [230-232].
[808] Autorité de la Concurrence, Report to the Paris Court of Appeals Concerning the Litigation between Bottin Cartographes SAS and Google Inc. and Google France.

predatory pricing as suggested by the complainant in the case of *Bottin Cartographes v Google Inc.*,[809] this section will attempt to answer that question by assessing the factual background of the case. The main facts of this case are that the online commercial mapping services providing business of Bottin Cartographes was affected adversely by Google entering the market and providing its mapping services for free to consumers. Subsequently, Bottin filed a case of abuse of dominance against Google by alleging that this practice of provide a part of their services for free amounted to predatory pricing. It was found that Google offered 2 versions of the product- 1. A free basic version, and 2. A paid version that offers advanced features mainly for businesses.

When the case was first brought to the Commercial Tribunal of Paris in 2012, the Tribunal ruled that Google abused its dominance by infringing Article 420 of the Commercial Code by offering its mapping service for free and fined it 500,000 Euros as damages to be paid to Bottin. According to the Tribunal, the main reason for the ruling was that the free maps provided by Google had the ability to undercut its main French competitor, Bottin Cartographes which would result in loss of market share for it. The Tribunal noted that while there was no intention to recoup the losses made due to the offering of free maps, Google acted with the intention to eliminate its competitor from the market.[810]

However, on appeal, the Paris Court of Appeal overturned the ruling and set aside the fine imposed on Google since it was part of a multi-sided market which is characterized by specific features. The Court referred to the *AKZO* test and the subsequent development in *France Telecom* to determine whether the prices were below cost.[811] In its assessment, the Court carried out 20 different Cost tests and found that Google's revenue exceeded its long-run average incremental cost on 18 of those tests when their overall revenues were considered.[812] Google's revenue from advertising was also considered in this assessment which is one of the main sources of revenues for digital platforms due to their multi-sided nature.

The Court rejected the Tribunal's ruling that Google acted with the intention to eliminate its rival and instead agreed with the French Competition Authority's and Google's argument that the offering of services for free in online platform markets is an accepted practice which is used to increase the user base of that firm. The ability to recoup losses would also not be possible in

[809] *Bottin Cartographes v Google and Google France*, Opinion of Autorite de la Concurrence in in front of the Paris Court of Appeal, (16 December 2014). Note that the judgement is only available in French.
[810] ibid [4-5].
[811] ibid [33-40].
[812] ibid [70-72].

this case as open-source solutions cannot be prevented from entering the market and considering that the price of Google maps is zero, the recoupment would not occur through a monetary price.[813]

Interestingly, if the test suggested in this chapter regarding having a presumption of abuse if prices were below ATC/LRAIC were considered, Google would have failed the test on two cost tests. This would have required Google to show efficiencies arising from its conduct, which arguably they do in terms of creation of a new type of market.[814]

The Commercial Tribunal's decision has been criticized for not considering the nature of online platforms and the dynamic nature with which firms such as Google offer innovative possibilities for users. In this case, the market can be seen to have moved forward to one where consumers are offered a product that is not charged a monetary price. By initially fining Google for this, consumers could have potentially lost out on being able to access mapping services for free. In this case, it can clearly be seen that the rival firm, *Bottin Cartographes* could not compete with Google's business model which makes it a lesser efficient rival. A case being brought against Google for offering its maps for free and the initial decision of the Tribunal was criticized even by those in the technology sector as the felt that this was a regressive step and lacked economic understanding of the market.[815] This can be considered to be a case that falls under the

Coming to assessing whether cross-subsidization by Google, the benefits to consumers and the overall improvement to the market in terms of certain services that used to be provided for a monetary cost being provided for consumer data instead need to be weighed against the elimination of competition. However, the fact is that another firm could replicate Google's strategy and business model by providing a better-quality map and attract consumers.[816] There is no restriction for users from Google to stay with their free map service as noted by the Court. This negates the argument regarding Google's actions in this case having predatory consequences. It can be argued that Google's size and deep pockets allows it to produce better

[813] ibid [80-81]. It may occur through data collection as discussed in Chapter 3.
[814] Pierre Larouche, 'Platforms, Disruptive Innovation and Competition on the Market', CPI Antitrust Chronicle, February 2020; (2020) University of Montreal Faculty of Law Research Paper, Available at SSRN: https://ssrn.com/abstract=3837085 or http://dx.doi.org/10.2139/ssrn.3837085.
[815] Techdirt, 'French Court Fails Digital Economics; Claims Free Google Maps Is Illegal', (Techdirt, 14 February 2012), https://www.techdirt.com/articles/20120203/03021117647/french-court-fails-digital-economics-claims-free-google-maps-is-illegal.shtml; Scientific American, Google Must Pay $660,000 for Offering Google Maps for Free, 2 Feb 2012, https://www.scientificamerican.com/article/google-must-pay-660000-for-offering-2012-02/.
[816] Though there are high fixed costs to develop a search engine.

quality maps which competitors might not have the luxury of. If this is an issue, it could be dealt with by a sector regulator rather than by a competition authority.[817]

The case of Google's mapping services being provided for free is akin to how newspaper companies work. The revenue model of a mapping platform like Google is based off advertisements placed on the side of the maps which is used by business users from that area. The mapping service is then cross-subsidized to consumers.[818] To assess any claims of predation through cross-subsidization, revenue generated via advertising must also be considered along with costs as was the case in *Aberdeen Journals* where the advertising revenues were included in the cost analysis. At the same time, Google has brought mapping services for free to consumers and changed the dynamics of the market. It can be concluded that the analysis carried out by the Paris Court of Appeal is the accurate one as the consider the dynamic efficiencies that are seen in the case. Therefore, it is important to consider efficiencies while developing a test for assessing predatory pricing in platform markets.

4.4 Pricing below LRAIC/ATC: Presumption of abuse in two-sided platforms within the scope of Article 3 DMA or under Article 102 TFEU

For some markets, an alternative test was suggested by Joskow and Klevorick to include the US rule of reason with a predatory pricing assessment framework which consisted of two stages.[819] The first stage is to examine the market structure to assess whether failure to identify predatory pricing could lead to significant economic lost to society.[820] This is to screen out markets where predatory pricing might lead to harm from those where it doesn't.[821] The second stage involves checking whether the prices of the firm are below average variable cost. They suggest that after having considered the market structure and having weeded out markets where predatory pricing might not lead to significant loss to society, a price set below AVC will have no purpose other than predation.[822] If a price is below ATC but above AVC, Joskow and

[817] This is further discussed in Paper 5 of the thesis which discusses remedies.
[818] Investopedia, How Does Google Maps Make Money?, 14 November 2019.
[819] Paul Joskow and Alvin Klevorick, 'A Framework for Analyzing Predatory Pricing Policy' (1979 89(2) THE Yale law Journal 213.
[820] ibid, 244-248. This is suggested to understand the structural characteristics such as the extent of a monopoly problem.
[821] ibid, 243-44.
[822] ibid, 248-51.

Klevorick suggest that the price be presumed to be predatory unless the dominant firm can defend it by showing that it is profit maximising.[823]

The current test for gatekeepers or core platforms follows from this market structure test proposed by Joskow and Klevorick. The market structure of firms designated as gatekeepers or core platforms is one where they are deemed to be of such large size that they ought to be treated differently than other firms which might be considered dominant but not core platforms. The need for special regulation for platforms is evidenced by the creation of the DMA which considers the super-dominance of many online platforms to need a regulatory structure. The use of a test like allows potential competitors in the future to be able to enter markets that are currently dominated by a single platform.

Gal argues that it may be useful to price below cost for a firm to reach its minimum efficient scale by enlarging its consumer base and that this tendency is especially prevalent in network industries characterized by the winner-takes-most or winner-takes-all mentality and this should be allowed by courts.[824] She also argues that pricing below cost after achieving a minimum efficient scale should not be allowed. This supports the argument to have LRAIC/ATC as the base standard to assess predatory pricing cases concerning core platforms that may have achieved such minimum efficient scale. This brings the chapter to the proposed test to asses predatory pricing in online platforms.

4.4.1 The Proposed test under the DMA and under the Article 102 TFEU regime

Stages	**Under the DMA**	**Under Article 102 TFEU**

[823] ibid, 253-54.
[824] See Gal, (n 654) 10-14.

Step 1- Qualification	**Firms that fall within Article 3 of the DMA**	**Online platform firms that are super-dominant in nature**
Step 2- Predatory pricing test	**Presumption of abuse for prices below ATC**	**Presumption of abuse for prices below ATC**
Step 3- Rebuttal	**Opportunity to rebut the presumption by showing clear efficiencies- Does not exist within the DMA currently**	**Objective justification exists in competition law**

4.4.1.1 Step 1- Under the DMA regime

The first step is to consider which markets come under the purview of this proposed test.[825] The process of designating a gatekeeper is established under Article 3 of the DMA.

Article 3(1) of the DMA lays down that:

"An undertaking shall be designated as a gatekeeper if:

(a) it has a significant impact on the internal market;

(b) it provides a core platform service which is an important gateway for business users to reach end users; and

(c) it enjoys an entrenched and durable position, in its operations, or it is foreseeable that it will enjoy such a position in the near future."

[825] See Section 1.3.1 for market definition in two-sided platforms.

This provision is satisfied if a firm meets certain financial thresholds laid down in Article 3(2)(a) DMA and if they provide their platform service to a minimum number of certain number of users under Article 3(2)(b) DMA.

Article 3(8) provides further discretion to the Commission in being able to assign the status of gatekeeper to certain firms in case Article 3(2) DMA provisions.[826] Article 3(8) lays down that:

"For that purpose (assigning of gatekeepers), the Commission shall take into account some or all of the following elements, insofar as they are relevant for the undertaking providing core platform services under consideration:

(a) the size, including turnover and market capitalisation, operations and position of that undertaking;

(b) the number of business users using the core platform service to reach end users and the number of end users;

(c) network effects and data driven advantages, in particular in relation to that undertaking's access to, and collection of, personal data and non-personal data or analytics capabilities;

(d) any scale and scope effects from which the undertaking benefits, including with regard to data, and, where relevant, to its activities outside the Union;

(e) business user or end user lock-in, including switching costs and behavioural bias reducing the ability of business users and end users to switch or multi-home;

(f) a conglomerate corporate structure or vertical integration of that undertaking, for instance enabling that undertaking to cross subsidise, to combine data from different sources or to leverage its position; or

(g) other structural business or service characteristics."

As far as assessment under the DMA is concerned, Article 3 DMA includes sufficient details of which type of firms would be considered core platforms and by virtue of that can be qualified for the modified test. When considering the dominance test in light of Article 3 DMA, it is

[826] Notably the Commission is provided a considerable amount of discretion in designating gatekeepers. See Section 5.3 for more discussion on this.

clear that any firm that falls under the cope of Article 3 DMA would be considered a dominant position with significant market power.

4.4.1.2 Step 1- Under the Article 102 TFEU regime

The aim of Article 102 TFEU is not to punish dominant firms, but to prevent them from impairing the market by abusing their dominance.[827] The qualification under the Article 102 TFEU regime would be for firms to be super-dominant and to also be a two-sided platform firm.[828] In the EU, the test to assess dominance is based on the *AKZO* test (presumption of dominance at 50 percent market share). Other cases such as *British Airways* and *United Brands* have shown that a firm may be dominant even with market shares of less than 50 percent.[829]

One aspect that may have led to its position as a core platform is it having to incur large financial reserves to create its platform. Some markets are characterized by high fixed costs and not so high variable costs. Online platforms fall within that characterization. A similar example is that of telecommunications where the cost of adding an additional consumer to the already existing network is minimal. In one Article it is noted that the cost to build and sustain a platform for already existing businesses is different to building applications as it requires regular investment to evolve it in accordance with the business goals.[830] This might require a high initial investment but also regular subsequent investments. In the context of digital platforms, some of the fixed costs are the hosting costs and development costs. The subsequent cost of acquiring new consumers would not require a major overhaul for most platforms. This shows similarities between the online platforms and telecom networks when it comes to cost.

However, it ought to be noted that there exist several types of platforms, and this notion of high fixed cost and low variable costs may not apply to firms that have high operational costs such as Amazon which may incur a lot of shipping costs as part of its business. Other platforms such as Google, Apps under the control of Meta such as Facebook, Instagram and Whatsapp, firms such as Twitter and Snapchat, may fall within the scope of firms that have high fixed costs but low variable costs. This is because the cost of acquiring a new consumer is minimal for these firms after achieving a minimum efficient scale.

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[827] See Commission Guidance on Article 82 [19].
[828] Case C-395/96 P *Compagnie Maritime Belge Case* EU:C:1998:518 [137-144].
[829] See *United Brands* (n 223) [65-66]; See also Case C-95/04 P, *British Airways plc v. Commission of the European Communities* [75-76].
[830] Peter Bendor-Samuel, 'Understanding Digital Platform Costs', Forbes, (30 Nov 2021), https://www.forbes.com/sites/peterbendorsamuel/2021/11/30/understanding-digital-platform-costs/.

4.4.1.3 Step 2- Same for both the DMA and Article 102 TFEU

It has been noted in the past that online platforms have low variable costs and high fixed costs.[831] In a study affiliated with the European Commission's science service, Duch-Brown noted that multi-sided platforms are characterized by a high proportion of fixed costs for developing and maintaining the platform, but these costs are independent of how many transactions take place within the platform.[832]

In 1998, the Commission noted that network industries tend to be different to most other industries.[833] This prompted the Commission to note that in a network industry such as the telecommunications industry, the variable cost of providing a service may be substantially lower than the price charged to end users.[834] Applying the AKZO test to check whether predatory prices have been offered would not be suitable in such an industry. Therefore, the Commission suggests that total costs should be used in this industry which reflect the overall cost of providing the service. For this the Commission suggests the use of long run Average incremental cost (LRAIC). This is a proxy for ATC.[835]

Similarly, platform firms are characterized by high fixed costs and lower variable costs. Using LRAIC/ATC would be more beneficial in platform markets that are also characterized by cross-subsidization. By considering traditional tests of predatory pricing, the result might be that many cases that may be a case of predatory pricing may not be included within the scope of the law due to the underinclusive nature of the current test.

It was noted by Azati (a team of software developers who develop commercial search engines)[836] that the cost to build a search engine platform prototype would cost about $ 100 Million.[837] These costs include costs for servers, bandwidth, and electricity. It was also noted

[831] Bruno Jullien, 'Two-sided Markets and Electronic Intermediaries' (2005) 51(2–3) CESifo Economic Studies 233; See also Daniel Mandrescu, 'Abusive pricing practices by online platforms: a framework review of Article 102 TFEU for future cases' (2022) 10(3) Hournal of Antitrust enforcement 469, 486.
[832] Nestor Duch-Brown, 'The Competitive Landscape of Online Platforms', JRC technical reports, Digital Economy working paper 2017-04.
[833] Notice on the application of the competition rules to access agreements in the telecommunications sector OJ [1998] C 265/2,paragraph113.
[834] ibid [114].
[835] ibid [115-116].
[836] https://azati.ai/.
[837] Azati Team, 'Search Engine: How Much Does It Cost To Develop In 2021' (12 December 2022), https://azati.ai/how-much-does-it-cost-to-develop-search-engine/.

that there would be an estimated maintenance cost which would be about $ 25 Million per year.[838] Clearly, there is a high fixed cost of creating and maintaining the search engine. It has also been noted that the duration and cost of developing an App from scratch to compete with an existing one would require incurring cost to develop various functionalities as mentioned in this Article.[839]

After the designation process, the second step is to assess whether prices are below different measures of cost (AVC and ATC). Since the firms concerned here are platform firms which are characterized by two-sides, it is important to consider all costs associated with the platform if there is a transaction taking place between the two sides, while considering only one side if there is no transaction taking place between the platform. This is in line with the model suggested by Filistrucchi and Behringer.[840]

The second step in this test will require to assess whether prices are below ATC. LRAIC may be used as a proxy to ATC. If the price is determined to be less than LRAIC/ATC, the platform will have presumed to have abused its dominance by engaging in predatory pricing under Article 102 TFEU. Presumptions deserve an important role in competition law.[841] Salop suggests that the basis of presumptions can be from inferred effects, or to cause a deterrent effect, or for some other public policy goal.[842] The presumption in this proposed test falls within the first category as it is based on the characteristics of digital platforms.

It is clear from the *Qualcomm* case that using LRAIC in tech based markets is possible.[843] It is noted in the Preamble of the DMA that the markets dominated by core platforms include high investment costs and high barriers to entry with access to data not easily available to any potential entrants.[844] One of the key aspects that is noted in the DMA which motivates the current test to assess predatory pricing is that these platforms within the scope of the DMA are characterized by extreme economies of scale which lead to a nearly zero marginal cost (MC) to add more users.[845] In competition law, AVC is often used as the proxy for MC.[846] This may

[838] ibid.
[839] Anastasia Kompaniets, 'How much does it Cost (and the Cost Structure) to Build an app like UberEats' (Uptech) < https://uptech.team/blog/how-much-to-build-app-likeubereats>.
[840] See Behringer and Filistrucchi, (n 728).
[841] Steven C. Salop, 'An Enquiry Meet for the Case: Decision Theory, Presumptions, and Evidentiary Burdens in Formulating Antitrust Legal Standards' (2017) Georgetown Law Faculty Publications and Other Works, 3-6.
[842] Ibid, 23.
[843] See *Qualcomm(predation)* (n 733) [933-34].
[844] See Preamble of the DMA [3].
[845] ibid [2].
[846] See Areeda and Turner (n 668).

suggest that presumption of abuse rule that currently exists with respect to it only extending to prices below AVC/MC, may not be suitable when applied to platforms under Article 3 DMA.

There is a special responsibility on dominant firms to act in a manner that does not distort competition.[847] In cases where a firm might be considered super-dominant, there is higher likelihood of harm being caused to the market due to the actions of the super-dominant firm.[848] Firms that meet the Article 3 DMA conditions can be considered to be such firms. This is the reason that they ought to be met with a stricter rule when considering assessment of predatory pricing. The stricter rule in step 2 of this proposed test is also required due to the nature of platform firms which exhibit strong network effects leading to lowering of their cost of acquiring new consumers but having high fixed costs. Even though a stricter rule may be advised in predatory pricing cases concerning platforms, the rule cannot be arbitrary and must follow a particular line of evaluation. This is why prices above ATC are not considered within this test as those prices have been ruled to have a foreclosure effect only on firms that are inefficient.[849] In case of price cuts offered to only some end users or intermediate users, the law on price discrimination may provide more insights as discussed in Chapter 2.[850]

The question has been asked previously regarding what price would be termed predatory if marginal costs were close to zero.[851] Lang suggests using an approach different from the *AKZO* test to assess predatory pricing in high-tech markets which are characterized by low to zero marginal costs. In such markets, he suggests that the approach move away from assessing whether the price is above AVC (proxy for MC), and instead assess whether the overall revenue of the firm exceeds its average variable cost of providing the good or service on a continuing basis.[852] In other words, he suggests the use of LRAIC instead of the standard AVC test determined in the *AKZO* case. This approach aligns with the one suggested in this paper with respect to platform firms which are one of the newest from of high-tech markets.

More recently, Mandrescu argues that assessing all platforms using the current *AKZO* test might be under-inclusive and may allow multi-product/multi-service platforms to circumvent

[847] Case T-203/01, *Michelin v Commission (Michelin II)* [2003] ECR II-4071 [97].
[848] See Whish and Bailey (n 124) 198-199.
[849] See *Post Danmark* (n 233) [36].
[850] See Section 2.4.
[851] John Temple Lang, 'European Community Antitrust Law: Innovation Markets and High Technology Industries' (1996) 20(3) Fordham International Law Journal 717, 787-790.
[852] ibid, 788.

legal scrutiny by allocating their costs differently.[853] He argues that EU Courts have considered other cost benchmarks in the past to assess predatory pricing cases which should also allow using a different cost benchmark than AVC in the case of platforms.[854] Mandrescu agrees with the Commission's approach to telecom markets and suggests the extension of the presumption of abuse rule to LRAIC.[855] This suggestion is again consistent with the proposal in this chapter. However, for legal certainty, the test ought to be limited only to platforms which may be considered super-dominant. This is achieved by limiting the scope to platforms that come under the scope of Article 3 DMA. An important aspect in designing a new method of assessment is to allow a counter argument. This brings the discussion to step 3 of the test.

4.4.1.4 Step 3- Objective justification

Most competition law presumptions include a possibility for the defendant party to rebut the presumption.[856] If a platform under Article 3 DMA is found to have priced below ATC/LRAIC, the third step to the proposed model will allow the platform to present objective justifications which does not currently exist for the DMA. While assessing any abuse under Article 102 TFEU, the Commission allows a firm to put forward objective justifications for its conduct.[857] In the *United Brands* case, the CJEU laid down that a dominant firm is entitled to protect its commercial interests when faced with competition which might lead it to take certain actions that ought to be assessed whether they can be justified.[858] However, the Court stated that such actions cannot be condoned if they were for the purpose of strengthening the dominant position.[859] While the two may considered separate goals, the actions carried out to meet those goals could be very similar.

Unlike Article 101 TFEU which has a derogation provision in Article 101(3) TFEU, Article 102 does not have an explicit clause which leads to reliance on cases, Commission Guidance, and commentaries. However, Article 101(3) TFEU may seem to be transposed into Article 102 TFEU.[860] In its Guidance Paper, the Commission has laid down four cumulative conditions

[853] See Mandrescu (n 766) 486.
[854] ibid 487.
[855] ibid.
[856] See Salop (n 776) 36-45.
[857] See Commission Guidance on Article 82 (n 516) [28].
[858] See *United Brands v. Commission* (n 223) [184].
[859] ibid [189].
[860] Tjarda van der Vijver, 'Objective Justification and Article 102 TFEU' (2012) 35(1) World Competition 55.

which allow in determining whether an objective justification on the ground of efficiencies can be claimed by a dominant firm.[861] They are: 1) Efficiencies ought to arise from the conduct such as technical efficiencies, 2) The conduct is necessary to bring about the efficiencies, 3) Negative consequences are outweighed by the efficiencies, and 4) All or most competition is not removed due to the conduct.[862] The CJEU's decision in *Intel* has made it easier for firms to provide evidence of lack of anticompetitive effects in cases relating to rebates.[863] This may be extended to cases where there is presumption of abuse such as those falling within this proposed test.

If a firm is able to show that the net gains outweigh the loss of competition, there is no reason to penalise such a firm. Van der Vijver notes that an objective justification under Article 102 TFEU may be claimed if they fall under a legitimate business activity which refers to its commercial freedom, or if there are efficiencies, or if there are public interest considerations.[864] The case of *Bottin Cartographes* that was considered in Section 4.3 seem to fall under this category when a digital platform is concerned. The efficiency was that the dynamics of the existing market were changing from a paid service for end users to one where they pay using their data.[865]

Therefore, the objective justification step which exists under the Article 102 TFEU regime is proposed to be introduced in the DMA obligation relating to the new presumption of abuse obligation.

4.5 Conclusion

This chapter contributes to the literature on predatory pricing in two-sided digital markets by considering whether firms that are dominant two-sided platforms ought to be assessed under a higher standard in the EU. For the DMA, the qualification to meet this higher standard is not discussed in this chapter as conditions in Article 3 DMA are accepted as the qualifying attributes of firms to be assessed under the presumption of abuse when Price < ATC standard

[861] See Commission Guidance on Article 82 (n 516), Paragraph 30.
[862] ibid.
[863] See *Intel* case (n 238) [138].
[864] Tjarda van der Vijver 'Article 102 TFEU: How to Claim the Application of Objective Justifications in the Case of prima facie Dominance Abuses?' (2013) 4(2) Journal of European Competition Law & Practice 121, 121–133.
[865] See Section 1.2.2 of Chapter 1.

under the DMA regime. Under the Article 102 TFEU regime, the test requires a firm to be super-dominant and to have characteristics of a two-sided online platform.

To arrive at this test, the chapter considered past cases from the EU and the US which helped inform the test. Some of the past theories on predation by authors have been vital in helping understand the need and method to devise a new method of assessing predatory pricing in some markets. The strong network effects associated with online platforms that may be super-dominant under the Article 102 TFEU regime or fall within the definition of Article 3 DMA under the DMA regime suggest the need to change the cost benchmark for assessing predatory pricing and include fixed costs. This led to the current proposed test of requiring a presumption of abuse for prices below ATC/LRAIC. The test includes the possibility of refuting the claim of predation and abuse by providing the firm with the ability to claim objective justifications.

While there are no instances of the presumption of abuse of prices below LRAIC being used, this test is proposed as a more effective one in being able to detect the cross-subsidization of costs by online platforms which will mostly be above AVC owing to the low MC. By setting the presumption standard to LRAIC/ATC, the true cost of an online platform firm may be revealed. This accompanied by the room provided for an objective justification would make this an effective test.

CHAPTER 5: Effective remedies in digital market abuse of dominance cases

5.1 Introduction

The scale of growth of digital platforms has brought about a sense of alarm among competition law enforcers and legislators.[866] There have been many suggestions to make the rules that govern the working of large digital platform firms stricter along with calls for effective behavioural remedies.[867] There has also been discussion of structural remedies in the form break-ups and vertical separation to reduce the market power of dominant digital platforms.[868] Separation of an already existing dominant firm into different parts is not widely accepted yet in the EU and has never been used since the passing of Regulation 1/2003 which enabled this feature.

This chapter will discuss the different tools that competition authorities in the EU can use, as well as potential remedies that can be imposed, to deal with competition law infringements in digital platform markets. The chapter will begin by addressing the main legal powers that are bestowed on competition authorities in the EU to deal with infringements under Regulation 1/2003 in Section 5.2. After that, the chapter will discuss their relevance in digital markets and address the challenges that exist making competition law remedies less effective in digital markets. Section 5.3 will evaluate the use of different tools such as market investigations, co-

[866] See introduction chapter.
[867] ibid; See also Monopolies Commission, Biennial Report XXIII, 2020.
[868] See Lina Khan (n 756).

working between competition authorities and regulators, structural separation, and modern remedies suggested by past authors to nullify digital market infringements.

In Section 5.4, the chapter contributes to the existing knowledge regarding remedies in digital markets by focusing on the pricing related infringements that have been discussed between chapters 2 to 4 and sets out to find the most effective remedies for seven infringements relating to digital markets. In pursuit of the most effective method to remedy negative effects of certain conduct, the chapter mainly relies on remedies available under Article 102 TFEU, but also uses the obligations under Articles 5 and 6 of the DMA for those firms who may fall within the scope of the DMA regime. The infringements considered in Section 5.4 of the chapter are: 1) excessive pricing and imposing unfair trading conditions such as unclear data extraction policies, 2) Self-preferencing, 3) Exploiting consumers by providing unauthentic results in return for collecting information on their preferences, 4) Predatory pricing through cross-subsidization by two-sided platforms, 5) First-degree price discrimination through price personalization, 6) Preventing data portability and data sharing between different platforms,[869] and 7) Tying essential inputs with other products.[870]

The first five infringements have been the basis for discussion in the previous three chapters. The infringement relating to data portability is relevant to this thesis as it links with preventing a dominant firm from limiting consumer access to other alternatives. This was touched upon in Chapter 3 of the thesis. Tying of essential inputs in digital markets is another form of abuse carried out by dominant firms to try and monopolize the market. This was discussed in the context of tying complementary free goods in Chapter three.[871] Here, the infringement will be considered in light of market foreclosure. With respect to digital market remedies, tying provides a useful example to assess the effectiveness of remedies due to the *Google Android* case remedies. While self-preferencing has been mentioned in Chapter 3 of the thesis, it has not been expanded on unlike the four pricing infringements which have been focused on between chapters 2 to 4. However, lessons on effectiveness of remedies that are a result of the *Google Shopping* case provide insights into possible remedies for the remaining digital market infringements.[872] Remedies for Article 102 TFEU infringements (also 101 which is outside the

[869] See Section 1.2.3.1 of Chapter 1. Even though this has not been considered in the 3 substantive chapter prior to this one, they are related to the core of digital market remedies prompting a discussion on them.
[870] The *Google Android* remedies related to tying is another landmark area which deserves discussion to better understand how remedies can be implemented.
[871] See Section 3.2.2 of Chapter 3.
[872] See Section 5.2.3.

scope of the discussion) have been designed using a toolbox established through Regulation 1/2003 which will be the next area of discussion in Section 5.2.

5.2 Regulation 1/2003[873]: The toolbox for remedies and commitments

On 16 December 2002, Regulation 1/2003 was adopted to develop the competition culture within the EU by laying an enforcement toolbox.[874] This Regulation allows the Commission to impose remedies in cases where firms infringe Article 101 or 102 of the TFEU. It empowers both the Commission and National Competition Authorities to apply Articles 101 and 102 of the TFEU. Articles 7 and 9 of the Regulation allows the Commission to impose remedies or accept commitments respectively. Article 8 allows for interim measures to be adopted. Article 23(2) of the Regulation also allows for up to 10 % of total turnover from the preceding year which will be discussed in Section 5.2.4.

Table 2 includes the three main provisions in EU Competition Law that can be used to rectify an infringement or to prevent firms from continuing to carry out a harmful business practice.

Table 2: Articles 7 to 9 of Reg. 1/2003

COMPETITION LAW PROVISIONS	DESCRIPTION
1) ARTICLE 7 OF REG. 1/2003	Gives the Commission the power to impose behavioural or structural remedies to correct a harm and bring an infringement to an end. The

[873] Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty, OJ L 1, 04.01.2003.
[874] ibid Recitals [1-9].

	remedy imposed needs to be proportionate to the harm and necessary to bring the infringement to an end.
2) ARTICLE 9 OF REG. 1/2003	Allows adopting binding commitments imposed on the undertaking concerned based on what is offered to the Commission by the infringing firm.
3) ARTICLE 8 OF REG. 1/2003	Allows the Commission to impose interim measures in cases of urgency due to the risks and seriousness of damage to competition.
4) ARTICLE 23(2) OF REG. 1/2003	Allows the Commission to impose fines of up to 10% of total turnover from the preceding year.

To understand how Articles, 7,8,9 and 23(2) of the Regulation may apply to Article 102 TFEU cases concerning digital platforms, Sections 5.2.1 to 5.2.4 will provide a description of the provisions using some case law examples.

5.2.1 Article 7 of Regulation 1/2003

In the EU, competition law remedies can be either structural or behavioural. According to Article 7(1) of Regulation 1/2003, the Commission can impose structural or behavioural remedies which are proportionate to the infringement committed and can also order an Undertaking to cease an infringement and refrain from committing it again in order to prevent

competition from getting hampered in the market. Under Article 7 of Reg. 1/2003, the Commission can impose remedies for an indefinite period or for a specified period depending on the case and the effect on competition in the market concerned.[875]

Behavioural remedies can be based on either conduct or performance. Some examples of conduct-based remedies are- obligation to supply goods in a non-discriminatory way, obligation to share information or data, obligation to discontinue a certain activity. Performance remedies are regulatory remedies such as price control and quality improvement. Conduct based remedies have been the more commonly used behavioural remedies in the past.[876] An example of a behavioural remedy is in the case of *Microsoft* where the Undertaking was ordered to offer a non-tied version of its product (Operating System without the Media Player) and had to provide interoperability information to competitors.[877] The Commission also has the power to order the undertaking concerned to propose remedies where the Commission might not be best placed to suggest remedies due to technical issues involved.[878]

Structural remedies are those that bring about a change to the existing business structure of the undertaking concerned. The most common structural remedy is a divestiture of an existing business.[879] It is also stated in Article 7(1) that structural remedies ought to be only imposed when there is no suitable behavioural remedy that can be imposed instead. Remedies under Article 7 of Regulation 1/2003 resemble permanent injunctions as they impose a form of permanent behavioural or structural change.[880] Under Article 7, the Commission is also allowed to pass a prohibition decision without any prospective remedy if it feels that the decision will bring an infringement to an end.[881] Infringements brought under Article 7 can deal with cases where a firm abuses its dominant position by actions such as refusal to

[875] Cyril Ritter, 'How Far Can the Commission Go When Imposing Remedies for Antitrust Infringements?', (2016) 7(9) Journal of European Competition Law & Practice 587, 587-98.
[876] OECD, 'Roundtable on remedies and sanctions in abuse of dominance cases', DAF/COMP/WD(2006)34 [38-41].
[877] *Microsoft* Case COMP/C-3/37.792; Was confirmed by the GC in Case T-201/04, *Microsoft v Commission* ECR 2007 II-03601.
[878] See Ritter (n 880) 591-592.
[879] See OECD Roundtable (2006) [34].
[880] Cyril Ritter, 'Remedies for Breaches of EU Antitrust Law '(May 17, 2016), Available at SSRN https://ssrn.com/abstract=2781441.
[881] See OECD Roundtable (2006) [20].

supply,[882] tying,[883] or price cuts below cost to eliminate a competitor.[884] An alternative to remedies under Article 7 are commitments that the undertakings concerned agree to meet in order to avoid getting penalised unilaterally by getting involved in the remedy design process.

5.2.2 Articles 9 and 8 of Regulation 1/2003

Article 9 of Reg.1/2003 gives the Commission the power to decide to adopt binding commitments on the undertakings concerned. Commitments are adopted if: 1) undertakings under investigation are willing to offer commitments, 2) a fine would not be appropriate, and 3) adopting a commitment is more efficient than a prohibition order.[885] The Commission may apply Article 9 of Reg. 1/2003 where it would have applied Article 7 instead but for the commitment offered. Article 9(2) of Reg. 1/2003 allows the Commission to reopen proceeding where an undertaking does not abide by the commitments as was seen in the case of *Microsoft* where a fine was levied for breach of commitments.[886]

The principle of proportionality that governs Article 7 of Reg. 1/2003 applies differently to Article 9(1) of Reg. 1/2003. This was shown in the case of *Alrosa*,[887] where it was held that the undertaking that offer commitments under Article 9 of Reg. 1/2003 consciously accepts that they may go beyond what the Commission might impose on them under Article 7 in return of avoiding a thorough investigation and a fine.[888] It was clarified through this case that Articles 7 and 9 of Reg. 1/2003 pursue different objectives.[889] The Commission may choose to bring an infringement case even though commitments are offered if it is not satisfied that the commitments would be able to repair competition.[890] Commitment decisions have quicker

[882] Joined cases 6/73 7/73- *Istituto Chemioterapico Italiano and Commercial Solvents v Commission* ECR 1974 -00223 [42-50]. The dominant firm was ordered to supply a certain amount of raw material to the complainant as a remedy.
[883] See *Google Android* Case (n) [1393-400]. Firm was ordered to provide a choice screen in Android devices without a pre-installed search engine tied to the device.
[884] See *AKZO v. Commission*.
[885] Commitment decisions (Article 9 of Council Regulation 1/2003 providing for a modernised framework for antitrust scrutiny of company behaviour), MEMO/04/217.
[886] *Microsoft* COMP/39.530, IP/13/196; See also Alison Jones, Brenda Sufrin and Niamh Dunne, *EU Competition Law: Texts, Cases and Materials* (7th Edition, Oxford University Press) 932, 940.
[887] C-441/07 P - *Commission v Alrosa* ECR 2010 I-05949. The appeal was brought up by an undertaking that was not dominant and was therefore considered a third party by the Court of Justice.
[888] ibid [48].
[889] ibid [46].
[890] Case COMP/39.525 — *Telekomunikacja Polska*; See also Google Shopping, (n 245); See also Jones et al. (n 135) 940-941.

impact, are more forward looking and can have swifter implementation of remedies as undertakings attempt to avoid a fine via an infringement investigation.[891] On the other hand, more commitment decisions lead to lesser clarity about the law and lack of judicial precedent which may also lead to third parties being disadvantaged as was seen in the case of *Alrosa.*[892] This is one of the reasons why the CJEU's *Alrosa* judgment has been criticized in the past.[893]

The case of *Aspen* in 2021 is one in which commitments offered by the dominant firm were accepted by the Commission in relation excessive prices being charged for critical medicines.[894] The Commission had asked other stakeholders regarding the price and supply commitments offered by Aspen and were met with positive responses.[895] This helped assuage the Commission's concerns regarding unfair prices being charged as the Article 9 Commitment that were offered were able to correct the harms arising out of the previous conduct.[896]

Article 8 of Reg. 1/2003 deals with interim measures giving the commission the authority to impose measures to tackle cases of urgency where an irreparable harm to competition may be caused. Interim measures are considered one of the least used tools in enforcement due to their underutilisation which is evidenced by the fact that the EC has only dealt with eight decisions that deal with interim measures.[897] The latest use of interim measures can be seen in the case of *Broadcom* where the Commission ordered the chipset supplier firm, Broadcom, to stop its conduct of applying anticompetitive provisions to its customers and to refrain from engaging in retaliatory measures.[898] Subsequently, the Commission accepted commitments offered by Broadcom in relation to suspension of its existing agreements with customers.[899]

While interim measures and commitments are important tools under Reg. 1/2003, the focus of this chapter will largely be on imposing remedies as this has been the need in digital platform cases currently.[900] However, as has been seen in the *Aspen* and *Broadcom* Decisions, commitments and interim measures may be a more effective method of rectifying anti-competitive effects in a timely manner as the *Broadcom* Decision took 1 year and 2 months

[891] See Jones et al. (n 135) 941-942.
[892] ibid 942-943.
[893] Frederic Jenny, 'Worst Decision of the EU Court of Justice: The Alrosa Judgment in Context and the Future of Commitment Decisions', (2015) 38 Fordham Int'l L.J. 701.
[894] Case AT.40394 – *ASPEN,* COMMISSION DECISION of 10.2.2021.
[895] ibid [213-214]
[896] ibid [255-259].
[897] Stavros Aravantinos, 'Competition law and the digital economy: the framework of remedies in the digital era in the EU', (2021) 17(1) European Competition Journal 134, 155.
[898] CASE AT.40608 – *Broadcom,* COMMISSION DECISION of 7.10.2020.
[899] ibid [139-140].
[900] See Section 5.4

from start to finish while the *Aspen* case took 3 years and 7 months. Contrastingly, the *Google Shopping* Decision took nearly 7 years for a Commission Decision (case was initiated in November 2010) and 4 years further for the General Court's Decision. The use of commitment Decisions and interim measures therefore cannot be ignored in digital markets as they may be effective tools for the Commission.

Whether the Commission adopts an Article 9 or an Article 7 decision depends on the seriousness of the infringement. Article 9 Commitment Decisions also help in making sure that the future behaviour of firms is adjusted in a manner that allows better functioning of the market.[901] In addition to that, the shorter time to adopt Commitment Decisions compared to adopting Article 7 remedies help fast innovating markets as was the case in *IBM- Maintenance Services*.[902] In case a firm does not comply with the Commitments that it had offered, the Commission may impose financial penalties in the form of a fine. An example of that is in the case of *Microsoft* where Commission fined the firm 561 Million Euros for non-compliance.[903]

5.2.3 Application of Reg.1/2003 to digital market cases: Ineffectiveness of remedies adopted in *Google Android* and *Google Shopping*

One recent example of a remedy being imposed on a digital platform is in the case of *Google Android* where the Commission had ordered Google to provide a choice screen for its users to its Android devices. The choice screen remedy was in response to Google pre-downloading its Google Search and Google Chrome on the devices which foreclosed competition in those markets.[904] The decision was upheld by the General Court of the EU. However, the choice screen's effectiveness was questioned by Google's rivals as it only ended up allowing Google to charge the other search engines money to display them in the choice screen.[905] This was subsequently amended and participation in the choice screen was made free by Google.[906] The

[901] European Commission, 'Competition Policy Brief' Issue 3, ISBN 978-92-79-35543-1, March 2014.
[902] European Commission Press Release, 'Antitrust: Commission makes IBM's commitments legally binding to ensure competition in mainframe maintenance market' 14 December 2011.
[903] European Commission Press Release, 'Antitrust: Commission fines Microsoft for non-compliance with browser choice commitments' 06 March 2013.
[904] See *Google Android* Case [1393-400]; See also Case T-604/18, *Google and Alphabet v Commission (Google Android)* ECLI:EU:T:2022:541
[905] Natasha Lomas, 'Google's EU Android choice screen isn't working say search rivals, calling for a joint process to devise a fair remedy' TechCrunch, 27 October 2020, https://techcrunch.com/2020/10/27/googles-eu-android-choice-screen-isnt-working-say-search-rivals-calling-for-a-joint-process-to-devise-a-fair-remedy/.
[906] Oliver Bethell, 'Changes to the Android Choice Screen in Europe' Google, 08 June 2021, https://blog.google/around-the-globe/google-europe/changes-android-choice-screen-europe/.

lawyers of one of the rival search engines (Qwart) found the amendment to address some of the pressing concerns and Google followed through with the updated choice screen in 2021.[907] The updated choice screen reflects the ability of users to freely choose the search service of their choice instead of providing a pre-downloaded option leading to an inference that the remedy might be effective.[908] However, the way the remedy was finally adopted can be questioned as the Commission had left it to Google to devise the remedy rather than construct it as is required under Article 7 of Reg. 1/2003.

The effectiveness of remedies were brought into the limelight in another recent example of the application of Remedies in the case of a digital platform firm in *Google Shopping* where Google was found to have abused its dominant position by favouring its own comparison shopping service than those of its competitors.[909] The Commission applied Article 7(1) of Reg. 1/2003 and decided that any measure that the dominant firm uses should treat competing comparison shopping services no less favourably than its own shopping service.[910] This included subjecting Google's own comparison shopping service to the same processes for selection of ranking and visibility as other competitors.[911] Within these processes, the Commission decided that they must include elements such as: a) those that determine the triggering of CSSs on the general search results pages, b) those that determine the positioning and display of comparison shopping services based on queries, c) visual appearance, d) granularity of information shown to users, e) possibility of interaction with users, and f) not charging competing shopping services a fee or another form of consideration that isn't charged to its own services.[912]

Similar to what had happened in the case of *Google* Android, the Commission did not throw light on how the process should be structured and left the onus on the dominant firm, Google, as a result of lack of expertise in complex algorithmic infringements. Some commentators are of the view that the remedy proposed by Google fulfils its obligation and is consistent with the

[907] Thomas Hoppner and Philipp Westerhoff 'Google finally amends Choice Screen remedy to prevent non-compliance proceedings in EU Android case' (Hausfeld, 09 June 2021), https://www.hausfeld.com/what-we-think/perspectives-blogs/google-finally-amends-choice-screen-remedy-to-prevent-non-compliance-proceedings-in-eu-android-case/.
[908] ibid.
[909] See *Google Shopping* Commission Decision. The remedies imposed by the Commission are relevant to the discussion which is why the Commission Decision is being referred to.
[910] ibid [693-699].
[911] ibid [700].
[912] ibid [700(c)] and [701].

decision of the Commission by bringing the infringement to an end.[913] Google's lawyers, Vesterdorf and Fountokakos opined that the principle of sound administration requires the Commission to merely consider whether a remedy proposed by the firm is appropriate or not during the negotiation period as the onus of choosing the appropriate method of bringing the infringement to an end was on the firm which is fulfilled in the case.[914] They argue that the auction based mechanism[915] employed as the remedy by Google makes sure that it doesn't gain an unfair advantage and is treated the same way as other comparison shopping services. In addition to that, they argue that the auction system leads to fairness in allocating scarce resources and prevents inefficient rivals from being subsidized by Google.[916]

However, Marsden argues that the remedy in *Google Shopping* has led to invisibility of competitors rather than their visibility. This is because Google shows competitor shopping service results after they click on the additional option present in the first result which is Google's own shopping service result.[917] In addition to this, Google's comparison-shopping services are more prominently and clearly displayed which prompts more clicks than those of competitors. The value of other shopping services is diminished in the eyes of the user as the user does not have a meaningful interaction with them which leads to further dominance of Google's own shopping services.[918]

Others such as The European Consumer Organisation (BEUC) have argued that competition in the market has not been restored by this decision as Google's algorithms continue to downgrade other competing options as a result of addition of several criteria.[919] The BEUC notes that that the remedies of equal treatment of competitors in the case of *Google Shopping* can only occur when a structural change occurs separating Google's search engine from its comparison shopping services.[920] A study commissioned by Google's competitors three years

[913] Bo Vesterdorf and Kyriakos Fountoukakos, 'An Appraisal of the Remedy in the Commission's Google Search (Shopping) Decision and a Guide to its Interpretation in Light of an Analytical Reading of the Case Law' (2018), 9(1) Journal of European Competition Law & Practice 3.
[914] ibid 6-8.
[915] A system where the highest bidder is presented with the position that is auctioned.
[916] ibid 10-17.
[917] Phillip Marsden, 'Google Shopping for the Empress's New Clothes –When a Remedy Isn't a Remedy (and How to Fix it)' (2020) 11(10) Journal of European Competition Law & Practice 553, 553–560.
[918] ibid.
[919] BEUC, 'Open letter about Consumer concerns with Google's non-compliant remedy in Antitrust Shopping case (AT.39740) on behalf of BEUC to Commissioner Vestager', on 5th of April 2019; See also Aravantinos, (n 829) 151-52.
[920] ibid; See also Rowland Manthorpe, 'Google 'trying to circumvent EU ruling' with price comparison sites run by ad agencies' (skynews, 08 October 2018), https://news.sky.com/story/google-trying-to-circumvent-eu-ruling-with-price-comparison-sites-run-by-ad-agencies-11518376.

after the decision found that less than one percent of the traffic is directed to competing shopping services.[921] In 2019, Competition Commissioner Vestager acknowledged the fact that the Commission does not see much traffic for rival competitors when it comes to comparison shopping.[922] Based on empirical data of 25 comparison shopping services (CSS), Hoppner found that Google's remedial conduct does not reflect equal treatment of other CSS.[923]

This raises further questions regarding the effectiveness of remedies concerning online firms and prompts a discussion on whether there are alternate mechanisms that can be used to deal with abuse of dominance cases in digital markets such as market investigations or radical remedies such as structural separation or whether reliance on new legislation is the way forward. The remedy adopted in the *Google Shopping* case in addition to other cases concerning digital platforms will be further discussed in Section 5.4 of the chapter. One way in which remedies in digital markets can be made more effective is through ex-post evaluation of them after a few years to consider whether any modifications need to be made.[924] Owing to the novelty of the abuses and remedies in digital markets, it is important for an institution that is imposing remedies to learn and make them more effective as time passes. It is also important to note that both *Google Shopping* and *Google Android* are not cases that can be considered as benchmark cases that can be followed in future digital market cases due to the issues concerning who the author of the remedy is. This Section highlights the need for discussion. On digital market remedies which will be considered in Sections 5.3 and 5.4 of this Chapter.

The main takeaway from this case is that in order to make remedies effective in solving issues that arise as a result of certain behaviour by large online firms, expertise is required in understanding the general working of digital markets beyond a mere competition viewpoint. One feature of the Commission has been in imposing fines instead of engaging with Article 7 remedies in cases of infringements. Section 5.2.4 will discuss the use of Article 23(2) of the Reg. 1/2003 in relation to the Commission's ability to impose fines.

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[921] Emily Craig, 'Google Shopping remedy has failed, study claims', (Global Competition Review, 29 October 2020), https://globalcompetitionreview.com/behavioural-remedies/google-shopping-remedy-has-failed-study-claims. .

[922] European Parliament, Parliamentary questions, 19 November 2019: https://www.europarl.europa.eu/doceo/document/E-9-2019-003869_EN.html.

[923] Thomas Hoppner, 'Google's (Non-) Compliance with the EU Shopping Decision' (Hausfeld, September 2020), https://www.hausfeld.com/uploads/documents/googles_(non)_compliance_with_google_search_(shopping).pdf.

[924] OECD Global Forum on Competition, 'REMEDIES AND COMMITMENTS IN ABUSE CASES – Contribution from the European Union' 17 November 2022.

5.2.4 Imposition of fines under Article 23(2)

One of the least intrusive punishments that the Commission can adopt in terms of not interfering with the firm's day to day business is to impose fines. Under Article 23(2) Reg. 1/2003, the Commission can impose fines on undertaking where it deems fit of up to 10 % total turnover from the previous year. It is noted in the Commission's Guidance on setting fines that the amount of fine may be increased by up to 100 % if the undertaking persists in its abusive conduct.[925] This shows that there is some amount of flexibility with regard to imposition of fines. One interesting part within the guidelines is that the Commission may also increase fines for deterrence when concerning large firms.[926] The Commission has imposed higher fines where the duration of the abusive conduct has been longer.[927]

The imposition of the 2.42 billion Euro fine in the *Google Shopping* case suggests asking the question if fines may also be a suitable way of deterring abusive conduct by dominant platform firms. The Commission's unfettered discretion with respect to imposition of fines has been noted to have been condoned by EU Courts as well.[928] The Commission can be noted to choose the percentage increase in fines based on a certain methodology when past cases are referred to.[929] In some cases such as *Microsoft* and *Intel*, Dethmers and Engelen note that the Commission multiplied the initial fine and then went on to increase it based on the duration of the abuse.[930]

Volmer and Helmdach also noted that the use of competition law over the GDPR (limit on fines is up to 4% total turnover) is beneficial to issue higher fines.[931] The DMA resolves this issue as fines may be imposed of up to 10 percent total turnover. The purpose of fines in EU competition law is not to recover ill-gotten gains due to the abuse alone but also to deter large firms from engaging in certain actions. In digital platform market abuses, fines are only bound to increase as has been seen in the *Google Android* case where a fine of 4.34 billion Euros was imposed.[932] The case initiated against Meta/Facebook by Gormsen can be seen to be motivated

[925] European Commission, 'Guidelines on the method of setting fines imposed pursuant to Article 23(2)(a) of Regulation No 1/2003', (2006/C 210/02) [27].
[926] ibid [30-31].
[927] ibid [5].
[928] Frances Dethmers and Heleen Engelen, 'Fines under Article 102 of the Treaty on the Functioning of the European Union', (2011) 2 European Competition Law Review 86, 98.
[929] 10% increase per year of infringement.
[930] See Dethmers and Engelen (n 935) 87-88.
[931] See Volmar and Helmdach (n 546).
[932] European Commission, 'Antitrust: Commission fines Google €4.34 billion for illegal practices regarding Android mobile devices to strengthen dominance of Google's search engine', Press Release, (18 July 2018).

by the imposition of such fines as the suit asks for a fine (as damages) rather than any other behavioural remedy.[933]

Perhaps, the use of fines can act as a suitable deterrent in how digital platform firms choose to organise their future conduct. The approach in the US is one that is often accompanied by fines in private lawsuits. Interestingly, the highest fine imposed in the US ($925 Million in Citicorp) so far is still lower than many of the fines imposed in the EU.[934] Under the DMA regime, Article 30 DMA allows fines of up to 10 percent worldwide turnover for non-compliance with the obligations listed under Articles 5 and 6 of the DMA. For firms designated as gatekeepers under Article 3 of the DMA, this removes the need to consider the GDPR and Article 102 TFEU jointly as the means to impose a higher fine have already been brought into force through the DMA. However, if a firm were to be dominant but not within the scope of Article 3 DMA, then such joint usage of legislations may still be warranted. This leads the chapter to Section 5.3 which engages on alternate remedies that may be available in digital market infringements.

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5.3 Alternate remedies and the best way forward

Competition law remedies in digital markets require specific knowledge about how the remedies would affect the market in the future and whether competition could be restored or brought to the market. The effectiveness of the remedies has been questioned which has prompted discussion on both radical remedies to restore competition and discussion of how remedies in digital markets are formed. This section of the chapter will primarily consider the role that other regulatory authorities can play while identifying infringements and designing remedies along with competition authorities in Section 5.3.1 by relying on a forthcoming paper by Lancieri and Neto. Section 5.3.2 will consider modern remedies that have been suggested in the literature to deal with digital market infringements which will later play a role in Section 5.4 while determining the suitable remedies for the seven abuses listed in the introduction of

[933] See Gormsen v. Meta.
[934] US DOJ, 'SHERMAN ACT VIOLATIONS RESULTING IN CRIMINAL FINES & PENALTIES OF $10 MILLION OR MORE', https://www.justice.gov/atr/sherman-act-violations-yielding-corporate-fine-10-million-or-more.

this chapter.[935] Section 5.3.3 will consider the role of structural separation as a suitable remedy. Section 5.3.4 will consider he role of market investigations in engaging with digital market infringements.

5.3.1 Working of competition authorities with regulatory authorities in digital markets

A competitive environment is one that is sought in most markets to prevent a monopoly situation. However, regulatory authorities are an essential body in many industries that ensure the sustainable functioning of that market by attempting to advance public interest, prevent market failure, and promote a competitive environment.[936] Regulation can be used as substitute for competition, a means for competition, or a stop-gap till a market can show that it can be competitive and does not need regulatory supervision.[937] Regulation can also have a negative impact on competition as firms may find their incentives to compete being taken away due to regulatory rules.[938] The Swedish Competition Authority's 2017 Report also contends on the basis of past literature that regulatory action might inhibit future entry.[939] Considering this, it might be ideal to have competition authorities and regulatory authorities play a joint role for the betterment of consumers and competition. The CMA is one of the competition authorities that plays an active role in coordinating with industrial regulators while considering competition law enforcement.[940] This is reflected in the formation of the Digital Regulation Cooperation Forum (DGCF) that includes the CMA, Information Commissioner's Office (ICO),[941] and the Office of Communication (Ofcom).[942] It also includes the Financial Conduct Authority (FCA)[943] as an observer.[944] The aim of this forum is to maintain competition and

[935] See Section 5.1.
[936] Paul Crampton, 'Striking the right balance between competition and regulation: The key is learning from our mistakes', 'APEC-OECD Co-operative Initiative on Regulatory Reform: Third Workshop,' Report, (16-17 October 2002), [13-26].
[937] ibid, [27].
[938] Swedish Agency for Economic and Regional Growth, 'Regulation and competition– A literature review, Report 0218', (March 2017).
[939] ibid, 12-13/24.
[940] Competition and Markets Authority, 'Regulated Industries: Guidance on concurrent application of competition law to regulated industries' (March 2014),
[941] The ICO upholds information rights in the public interest under the Department for Digital, Culture, Media & Sport, UK.
[942] The Ofcom is a UK Government approved regulatory body in charge of broadcasting, telecommunications and postal industries.
[943] The FCA is an independent financial regulatory body.
[944] Competition and Markets Authority, 'Digital Regulation Cooperation Forum: Plan of work for 2021 to 2022', Policy Paper, (10 March 2021).

protect data rights of consumers through effective regulation of communication services.[945] Owing to the novelty of digital markets, regulators and competition authorities having a joint role in the assessment and remedy design process is important.

Lancieri and Neto suggest closer working of competition authorities with regulatory authorities (where there are regulatory authorities involved such as the EDPS in data markets) when it comes to identifying, designing and monitoring remedies due to the common ties between the two. While there have been numerous reports on digital competition and how dominant platforms can be dealt with, the lack of a structured framework to facilitate interplay between general competition law remedies and specific regulatory remedies is argued to be a reason for the lack of effectiveness of remedies by them.[946]

Lancieri and Neto suggest a two-level framework to deal with the errors of authorities when they may design overly narrow or overly broad remedies which may have underenforcement or overenforcement implications. The first level consists of a compounded error-cost approach when it comes to substantive remedy design. This involves evaluating how an infringement impacts welfare and how harmful it is to competition to a level of certainty before deciding to intervene by assessing the risks of overenforcement and underenforcement. While designing the remedies using the error-cost approach, they argue that regulatory and antitrust remedies need to be classified in terms of legal requirement, breadth, scope of intervention and ease of adaptation with assessment of whether a broad remedy leads to overenforcement such as a sectoral remedy or whether a narrow remedy leads to underenforcement such as forbidding tying in a particular case.[947]

The second level involves designing remedies by assessing the strengths and weaknesses of antitrust authorities and regulatory authorities. Antitrust authorities oversee a wide range of industries while regulatory authorities oversee a narrow set of industries. They argue for the breaking up of vertically integrated authorities for better identification, design and monitoring of remedies.[948] They argue for division of tasks for the three levels of remedy implementation between competition and regulatory authorities depending on the violation concerned by considering aspects such as legal mandates, technical expertise in dealing with the industry, risk of regulatory capture and administrative costs. Functional separation would be best

[945] ibid.
[946] Filippo Lancieri and Caio Mario da Silva Pereira Neto, 'Designing Remedies for Digital Markets: The Interplay Between Antitrust and Regulation' (2021) Journal of Competition Law and Economics (forthcoming).
[947] ibid 20-30.
[948] ibid 30-32.

practice in digital market cases as it would allow the authority that has expertise to weigh in more on either the enforcement or remedies. However, being legal authorities, consistency in practice is an aspect that would need to be dealt with primarily which would require clear delineation of the functions.

Regarding allocation of functions, Lancieri and Neto argue that violations and remedies relating to exclusive dealing, MFNs, tying and bundling could be identified, designed and monitored by competition authorities since they deal with exclusionary abuses which is primarily the mandate of competition authorities. Violations such as discriminatory conduct, self-preferencing, refusal to deal and data interoperability is argued to need constant interaction between both authorities as it requires a wide range for remedy implementation while also requiring specific industry knowledge.[949]

They argue for competition authorities to identify the violations and let regulatory authorities design the remedies and monitor them as they have both exclusionary and exploitative aspects involved. When it comes to violations of data processing, nudges and exploitative conduct by digital firms, they argue that regulatory authorities should be the primary body to deal with identification, remedy design monitoring as in-depth technical analyses is required to assess exploitative harm to consumers which antitrust authorities lack. For all types of remedies, they argue that constant adaptation is required in order to make them effective.[950]

The framework developed for joint working of competition authorities and regulators by Lancieri and Neto with respect to decentralizing work depending on the function may allow better enforcement action and for effective remedies to be adopted. The suggestions made are unique ones which may be the best assessment method in coming to effective solutions when digital market infringements are concerned. Importantly, one of the major issues that a cross-institutional framework as suggested in this section can rectify is the lack of effectiveness of remedies that have been noticed in cases such as *Google Android* and G*oogle Shopping* mainly due to the Commission's lack of expertise in designing the most effective remedies in those cases. A firm like Google which will most likely be designated a gatekeeper under Article 3 of the DMA could be regulated under that regime itself. However, effectiveness of competition

[949] ibid 38-40.
[950] ibid 40-48.

enforcement which allows to maintain effective competition in markets has been considered one of key aims to allow the application of competition law in regulated sectors.[951]

The implementation of the DMA may have been a sign of relief for competition law enforcement agencies in the EU as the breach of any obligations listed in Article 5 or 6 by designated gatekeepers under Article 3 DMA would allow the use of this complementary regime instead of evaluating using Article 101 or 102 TFEU whether certain conduct is abusive. Article 4 DMA allow the Commission to amend or repeal an earlier decision which allows it to capture any new action that a core platform firm might engage in as abusive. On the one hand, digital market abuse of dominance cases has not been dealt with effectively so far by the EU as is evidenced in the *Google Shopping* remedy. The powers in Article 4 DMA will allow for better identification of harms. On the other hand, this might allow the Commission to intrude into the day-to-day activities of digital platform firms and reduce their autonomy.

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5.3.2 Modern remedies to deal with novel infringements: Some radical remedies

Data portability can be considered a remedy in digital markets such as social media platform markets where switching costs and network effects play a role regarding interoperability concerns. Graef suggests mandatory data portability as a remedy to allow easier switching between different platforms for users. A remedy such as this is argued to prevent social lock-ins.[952] She also suggests regulatory authorities to play a role in maintaining interoperability between different platforms as competition authorities can only impose an obligation.[953]

Schneider argues for mandatory data sharing to prevent data silos from restricting the free flow of information. Where data or information is indispensable for innovation and competition, she argues that in such cases the principles established in refusal to deal cases such as *Magill*[954]

[951] Niamh Dunne, 'The Role of Regulation in EU Competition Law Assessment' LSE Law, Society and Economy Working Papers 09/2021.
[952] Inge Graef, 'Mandating portability and interoperability in online social networks: Regulatory and competition law issues in the European Union', (2015) 39(6) Telecommunications Policy 502, 502-514.
[953] ibid.
[954] Joined Cases C-241/91 P and C-242/91 *P RTE and ITP v Commission* [1995] ECR I-743. The cases dealt with refusal to license copyright and lists of lists of television programmes and the conduct was found to be abusive under Article 102 TFEU.

and *IMS Health*[955] can be applied to mandatory data sharing. The broadening of the scope of the essential facilities doctrine in *Microsoft* provides another justification for mandating data sharing in order to allow competitors to be able to compete with the dominant firm.[956] There are limitations regarding data sharing such as disincentivizing generation of large datasets due to mandatory sharing and also the danger of over enforcement. However, Schneider argues that using Article 102 TFEU along with the provisions of the GDPR in a strict manner will allow mandatory data sharing to be a possible remedy. There are hurdles in the interworking of the two departments as the purpose limitation under the GDPR may be contradictory to data sharing remedies. However, she argues that it may fall under legitimate interest as the data sharing allows innovation and competition to thrive in the market.[957] This seems to be a reasonable view to take as mandatory data sharing will help engage with dominant digital platforms' hold over personal data of consumers which may lead to smaller firms being provided the ability to compete with the platform. Consumer data would be protected under Article 6 GDPR in any case. Allowing sharing of the data between platforms allows consumers to access other platforms freely which is why this may indeed fall within legitimate interest under Article 6(f) GDPR.

Article 20 GDPR mandates data portability which includes the right to move personal data from one platform to another. Gormsen and Morales note that the right only extends to personal data and does not cover non-personal data.[958] In the case of social media platforms, consumers can benefit if they are able to transfer all data to a different platform.[959] For this to be useful for consumers, social media platforms ought to be interoperable.[960]

One reason for the ineffectiveness (or at least alleged ineffectiveness) of competition law remedies in digital markets is because they do not create a deterrent effect on the infringing dominant digital firm. In order to tackle infringements by dominant digital firms, competition authorities require the use of remedies that would create a long-lasting deterrent effect. With

[955] Case C-418/01, IMS Health GmbH & Co. OHG v NDC Health GmbH & Co. KG. Case dealt with refusal to provide intellectual property (regional sales data) to another undertaking and was found to be abusive under Article 102 TFEU.
[956] Giulia Schneider, 'Designing Pro-Competitive Research Data Pools: Which EU Competition Remedies for Research Data Silos in Digital Markets?' (2020) 21 YARS 161, 170-175.
[957] ibid 176-182.
[958] See Gormsen and Llanos (n 435).
[959] ibid 95.
[960] A Diker Vanberg and MB Ünver, 'The right to data portability in the GDPR and EU competition law: odd couple or dynamic duo?' (2017) 8(1) European Journal of Law and Technology. Their argument regarding data portability is that for it to be effective, there ought to be interoperability between different platforms.

the need for a rethink on how designing remedies for digital markets takes place, Gal and Petit have formulated three untested radical remedies that could be used in digital markets. [961]

Gal and Petit suggest the use of mandatory sharing of algorithms to level the playing field between the dominant firm and other competing firms. Algorithms help firms in making predictive decisions more easily which would be a tedious human process. The sharing of algorithms that were involved in unlawful activities such as preventing rival firms from accessing data allows competition to be restored as it allows rivals to overcome the first mover advantages associated with digital markets.[962] Some of the problems associated with such sharing are reduction of incentives to innovate, delineating the exact part of the algorithm that was used for unlawful purposes and possible coordination between firms.[963] However, this might help solve the issue raised by Prufer and Schottmuller regarding innovation being stifled due to the lack of access to data for competitors which will in turn increase the quality of the services provided by zero-price platforms.[964]

One other issue that can arise is of firms colluding with each other and copying each other's business strategies which may be counter intuitive to making the market more competitive as this leads to a different type of competition issue. Firms may be able to set similar pricing algorithms that are able to exploit consumers and due to algorithmic sharing, consumers would not have the option to switch to a firm that does not engage in such exploitative behaviour. Ezrachi and Stucke highlight the need to consider algorithmic tacit collusion an emerging concern as it can go undetected.[965] With algorithm sharing, this can become a reality. While there may be a benefit in terms of more firms that are able to compete in the market due to newly acquired technologies and algorithms, the cost is that the same firms are now empowered to engage in collusive conduct. One way that such sharing can be justified is if it falls within the scope of Article 101(3) TFEU, though there are diverging opinions on how that may be applied.[966]

[961] Michal Gal and Nicholas Petit, 'Radical Restorative Remedies for Digital Markets', (2021) 37(1, Berkeley Technology Law Journal (forthcoming) 1-10.
[962] ibid 16-18.
[963] ibid 19-21.
[964] See Prufer and Schottmuller (n 160) 992-94; See also Section 1.2.3.1.
[965] Ariel Ezrachil and Maurice E. Stucke, 'Sustainable and Unchallenged Algorithmic Tacit Collusion' (2020) 17 Northwestern Journal of Technology and Intellectual Property 217.
[966] Or Brook, 'Struggling With Article 101(3) Tfeu: Diverging Approaches Of The Commission, Eu Courts, And Five Competition Authorities', (2019) 56 (1) Common Market Law Review 121, 156.

Gal and Petit also suggest subsidization of competitors as a remedy where the firm that is the closest competitor to the dominant firm is subsidized in order to be able to compete with the dominant firm and make the newly formed market competitive. The limitations are regarding choosing whom to subsidize and there not being immediate results in terms of the market becoming competitive while there is also the possibility of the subsidized firm replacing the more efficient dominant firm.[967] They also suggest of temporary shutdowns where the infringing dominant firm is forced to shut down on a short-term basis in order to allow the rivals to gain a part of the market. The limitations are of short-term disruptions occurring to users, user opinion not being changed and shutdowns also being a costly process.[968]

The three remedies suggested by Gal and Petit have their limitations, but they may be more effective in dealing with dominant digital firms and create competition for the market along with a strong deterrent effect about abusing the dominance. At the same time these remedies could have unintended consequences that damage consumer welfare especially considering temporary shutdowns. This chapter will consider the use of subsidization of the next best competitor in some of the remedies that will be proposed in Section 5.5.

5.3.3 Structural separation

One other remedy that is relevant when considering digital markets is that of structural separation. This refers to separating parts of the business that is found to have infringed Article 101 or 102 TFEU in accordance with Article 7 of Regulation 1/2003. Rigaud makes a comparison between the use of structural separation in Mergers and in abuse of dominance cases and argues that a suspected substantial lessening of competition is treated more fiercely than an already existing abuse of dominance.[969] When considering structural separation as a remedy in abuse of dominance cases, Article 7 of Reg. 1/2003 prevents its use until all possible behavioural remedies that are possible are considered unsuitable. Rigaud argues that this approach is not logically consistent as a behavioural remedy requires the competition authority to intrude into the practice of the firm and requires more burdensome permanent monitoring of the firm's practices thereby constraining market forces.[970]

[967] See Gal and Petit (n 900) 24-30.
[968] ibid 30-34.
[969] Frank Maier-Rigaud, 'Behavioural versus Structural Remedies in EU Competition Law' in Philip Lowe, Mel Marquis and Giorgio Monti (eds.) *European Competition Law Annual 2013: Effective and Legitimate Enforcement of Competition Law* (Hart Publishing, 2016) 207-224.
[970] ibid.

A structural remedy on the other hand does not require constant monitoring and also has the ability to remove any incentive that the firm has to continue in its infringing manner. A structural remedy allows the elimination of the effects of an anti-competitive infringement carried out by a firm. Under the *Ufex* judgement,[971] the Commission is required to eliminate the effects of an infringement and not only put a stop to that infringement. [972] The requirement under Article 7 of Regulation 1/2003 is of a remedy that is proportionate to the harm committed and one that is effective in bringing the infringement to an end. Rigaud argues that it is immaterial whether the remedy is structural or behavioural if it is not effective. [973] He proposes that remedies be structured based on necessity, proportionality and effectiveness with the firm being able to choose between an equally effective behavioural or structural remedy if a case arises where there are two such remedies.[974] Article 9 of the Regulation 1/2003 allows a firm to choose commitments which can be accepted or rejected by the Commission, but no firm would actively choose to undertake an operational separation. The Commission can offer firms a behavioural or structural remedy themselves and leave it to the firm to decide which remedy to undertake like the process under Article 9.

An example of structural separation being used in the past was in the case of *ARA* where the Commission had ordered for divestiture of part of the business in order to ensure that the infringement is not repeated.[975] The remedy was considered to be proportionate as it is the least burdensome remedy compared to a behavioural remedy in the case which would require long-term monitoring and supervision while a divestiture provides for a more 'clear-cut solution'.[976] Interestingly, the firm itself had suggested the divestiture in the case as it felt that the behavioural remedy of constant monitoring would be more burdensome for itself.[977]

The use of structural separation in digital markets can be envisaged as a more effective remedy than some long-term behavioural remedies such as in *Google Shopping* which have been criticized for not having effectively dealt with the issue of exclusion of competitors as the remedy imposed only made competitor firms more invisible.[978] Marsden argues that even considering the current rules and practices around the use of Article 7 of Regulation 1/2003, a

[971] Case C-119/97, *P Union française de l'express (Ufex), formerly Syndicat française de l'express international (SFEI), DHL International and Service CRIE v Commission* [1999] ECR I-1341.
[972] ibid [88] and [94].
[973] See Rigaud 215.
[974] ibid 216-224.
[975] CASE AT.39759 – *ARA Foreclosure* [140].
[976] ibid [146-47].
[977] ibid [148].
[978] See Marsden.

structural remedy may be considered proportionate and can effectively deal with the issue of exclusion of competitors. This is because the very structure of Google makes it likely that the infringement would be repeated in a different form unless the incentive to infringe is not taken away. This can be done by separating parts of the business which can bring the infringement and its effects to an end effectively.[979] This would be consistent with the holding in *Ufex* which requires the Commission to end the infringement effectively and end the distortive effect of the infringement.[980] The factual similarity in the two cases with respect to favouring the downstream subsidiary places the two in the same category of cases.

Structural separation can occur in many ways. Martin Cave suggest six levels of structural separation in the Telecommunications sector that are possible ranging from separating the accounting statements for the two entities to ownership separation.[981] The six levels described start from creating a separate unit within the same entity to operational separation which involves separating certain assets based on their purposes to separation of a mergers and directors for the two different entities to having completely different owners.[982] This can be used as a template when structural separation is considered in digital markets. The requirement would be further engagement with technical experts to ascertain the most suitable form of structural separation in a case involving a digital platform which may involve interaction with a sectoral regulator and the DMA.

Cave argues that separation is the answer to questions involving discrimination carried out by an upstream incumbent by favouring its own downstream affiliate, but the form differs depending on whether the discrimination is price or non-price related.[983] In a case involving non-price discrimination of downstream competitors such as in the example of self-preferencing, he proposes a remedy that is based on operational separation to ensure equal treatment for both the firms' subsidiaries and other competitors.[984] Price discrimination that leads to excessive prices to certain downstream competitors can be solved by accounting separation as the excessive returns from certain transactions will show up in the accounts.[985] The example of the telecom market can be extended to online platforms as well considering

[979] ibid.
[980] ibid.
[981] Martin Cave, 'Six Degrees of Separation- Operational Separation as a Remedy in European Telecommunications Regulation', (2006) 64 COMMUNICATIONS & STRATEGIES 89.
[982] ibid.
[983] ibid 91-92.
[984] ibid.
[985] ibid.

the similarity in terms of network effects and economies of scale as seen in Chapter 4.[986] Structural separation can be used to make sure that conduct by large digital platforms does not harm the market or consumers or that harmful conduct does not get repeated.

Lancieri and Neto also suggest the joint working of regulatory and competition authorities while determining levels of structural remedies. Competition authorities oversee a wide range of industries while regulatory authorities oversee a narrow set of industries. They argue for the breaking up of vertically integrated authorities for better identification, design and monitoring of remedies.[987] They argue for division of tasks for the three levels of remedy implementation between competition and regulatory authorities depending on the violation concerned by considering aspects such as legal mandates, technical expertise in dealing with the industry, risk of regulatory capture and administrative costs. Functional separation would be best practice in digital market cases as it would allow the authority that has expertise to weigh in more on either the enforcement or remedies. However, being legal authorities, consistency in practice is an aspect that would need to be dealt with primarily which would require clear delineation of the functions. One other alternate method of dealing with digital market infringements is through market investigations which could allow in understanding the needs of specific digital markets.

5.3.4 Market Investigations

The case of *Google Shopping* is one of the primary examples of remedies requiring over reliance on the infringing firm to come up with suitable solutions. At OECD's Global Forum where Abuse of Dominance in Digital Markets was discussed, it was widely concurred by delegates from different Competition Law bodies from around the world that the effectiveness of remedies concerning digital platforms needs to be reassessed. The Forum concluded with agreement on the fact that there is a threat of over enforcement which needs to be considered while applying competition law to digital platform cases. However, it was discussed by Amelia Fletcher and a delegate from the BEUC regarding the application of behavioural economics and choice architecture to make remedies effective. This could be done by engaging with the

[986] See Section 4.4.
[987] See Lancieri and Neto (n 946) 30-32.

different types of biases that consumers may have while they use the services of digital platforms.[988]

Fletcher proposes the use of market investigations in digital platforms as a complementary tool to competition law enforcement due to the limitations of competition law in areas such as abuse of dominance. She notes that market investigations may increase the scope by considering not just an ex-post evaluation, but also by restricting behaviour ex-ante.[989] In an example of the increase in scope for remedies, she presents that market investigation could potentially have extended the scope of the ruling in *Google Shopping* to other aspects of Google's business such as hotel search, job market search apart from just limiting it to online shopping which was the result of the competition law ruling.[990] Market investigations may also be able to achieve behavioural remedies on a broader level such as facilitating consumer control and choice as a result of imposing more transparency requirements.[991]

The CMA's Online Platforms and Digital Advertising Market Study is an example of an agency using market investigation to identify remedies that provide consumers more control such as choice over use of data, mandating interoperability, mandating data separation which are part of this Market Study's recommendations.[992] It also listed down behaviours that could weaken competition and harm both consumers and the market which could not have been possible from a purely ex-post evaluation of firm behaviour.[993] One of the aspects of the market investigation tool is that very specific sector regulators would also have to be involved in the process of determining remedies rather than a competition agency determining them due to the complexities involved in the different aspects involved in digital platforms such as interoperability, data sharing and algorithmic design. The global nature of large digital platforms firms and the inflexibility of remedy design involved with market investigations would it make for using the tool a hard task in digital markets.[994]

Using the lessons learnt from the UK's market Investigation tools, Marsden and Podzun suggest the use of market investigation at an EU level for digital markets by considering a framework that consists of transparency, a statutory time limit, and independence in decision-

[988] OECD, Global Forum on Competition, Abuse of Dominance in digital platforms, DAF/COMP/GF(2020)8.
[989] Amelia Fletcher, 'Market Investigations for the Digital Platforms: Panacea or Complement?: Economist's Note' (2021) 12(1) Journal of European Competition law & Practice 44, 44-55.
[990] ibid 48.
[991] ibid 50.
[992] CMA, 'Online Platforms and Digital Advertising', (1 July 2020), Market Study Final Report.
[993] ibid 312-21.
[994] See Fletcher (n 924) 52-53.

making.[995] They suggest this as a complement to the competition law to correct the failures of markets through the lens of market specialists rather than competition experts.[996] This suggestion allows the use a different complementary tool, the DMA, to engage with firms that may come within the scope of Article 3 DMA who may be able to influence their respective markets significantly.

Under the DMA regime, Articles 16 to 19 of the DMA allows the Commission to conduct a market investigation in cases where a firm may seem to possess the characteristics of a core platform which allows the Commission to designate them accordingly in order to bring them within the ambit of the DMA. The market investigation tool can also be used to investigate infringements of Articles 5 and 6 of the DMA or non-compliance by gatekeeper firms based on which the Commission can then impose behavioural or structural remedies. These wide powers in the proposed DMA would allow the Commission to thoroughly scrutinize the activities of large platform firms. On the other hand, such wide powers can also have an over-reaching effect and disincentivize growth which may reduce consumer incentives in the long run.

In June 2020, a 'new competition tool' was envisaged which would allow for market investigations leading to better understanding of digital markets and the required remedies.[997] The idea for that tool seems to have been abandoned as there has been no development on it since it was envisaged while the DMA and DSA which were also envisaged around that time have already come into force. Such a tool would allow for more dynamic solutions than merely considering conduct by either dominant firms under Article 102 TFEU or gatekeepers under the DMA through a static lens. The following section will now envisage remedies for certain types of conduct and analyse them using an err-cost method.

5.4 Remedies to deal with particular infringements

This section of Chapter 5 brings together all the substantive content covered in this thesis. It will discuss how particular infringements can be dealt with using competition law remedies or other mechanisms. Table 3 consists of seven different types of competition law infringements that are relevant to digital markets. This section will discuss how these infringements have been

[995] See Marsden and Podzun (n 398) 59-62.
[996] ibid 77-78.
[997]

dealt with and whether they can be dealt with in a better manner using alternate remedies discussed in the previous section.

The section will also consider whether the DMA could be the legislation to be used to deal with the infringement or whether competition law remedies are the right tool. The parallel working of competition law and the DMA to deal with the infringements will also be considered. Each of the infringements and the applicable remedies will be discussed using four steps

1) The first one will contextualize the infringement and look at examples of its occurrence currently or consider how it might occur.

2) The second step will consider the applicable remedies to that infringement including the remedy/ approach in past competition law cases that may have dealt with the infringement and consider whether the DMA can play a role by itself or with competition law.

3) The third step will involve looking at the benefits of the remedies considered in the second step.

4) The final step will consider the costs of the remedy and weigh them with the benefits to see whether the remedy that is identified would be effective.

The infringements discussed in this chapter have been discussed in the previous substantive chapters. The ones relating to tying and data portability have been discussed to a lesser extent, but are important lessons that need to be learnt in relation to structuring of digital market remedies justifying their inclusion in this chapter.

Table 3: Digital market infringements and remedies

INFRINGEMENT	REMEDY
1. EXCESSIVE DATA COLLECTION AND IMPOSING UNFAIR TRADING CONDITIONS SUCH AS UNCLEAR DATA EXTRACTION POLICIES	Excessive data collection violates can be prevented using Article 5(2) DMA which is a result of the joint working of Article 102 TFEU and data and consumer protection legislations. Double opt-in can be an effective remedy.
2. SELF-PREFERENCING: PLACING COMPETING FIRMS AT A DISADVANTAGE	The *Google Shopping* decision can be used as a template in leading enforcement action the infringement. With respect to the remedy, consultation with industry specialists that work in algorithms is vital for an effective remedy as previous works has suggested that the remedy in *Google Shopping* is ineffective.[998] Operational separation is a possible option.
3. EXPLOITING CONSUMERS BY PROVIDING UNAUTHENTIC RESULTS	Can invoke Article 102(a) of the TFEU with consumer protection authorities playing a role in designing an appropriate remedy. Relates back to

[998] See Marsden, (n 842).

IN RETURN FOR COLLECTING INFORMATION ON THEIR PREFERENCES	the *Google Shopping* case where the competition law angle to the case was a purely exclusionary one. The limitation of competition law authorities to deal with exploitative abuses and come up with ideal remedies can be solved by working with consumer protection authorities.
4. CROSS-SUBSIDIZING BY A TWO-SIDED PLATFORM WHICH AMOUNTS TO PREDATORY PRICING	The remedy in this case would be complicated considering that the current test to detect predatory pricing in digital platforms may not be as effective.[999] Ideal remedy would be compensation being provided to the smaller firms that were forced to exit the market.[1000] A radical remedy could be to separate the firm if there are high concerns relating to foreclosure of competition.
5. FIRST-DEGREE PRICE OR PERFECT DISCRIMINATION THROUGH PRICE PERSONALIZATION	Requires close interaction of competition law and other legislations as such as Anti-Discrimination law and consume protection legislations. Requires economic analysis to come up with appropriate remedy as price discrimination has differing effects on welfare.
6. PREVENTING DATA PORTABILITY AND DATA SHARING BETWEEN DIFFERENT PLATFORMS	Mandating data portability after consultation with data protection authorities can help bring back competition. Ex- Social media markets requiring mandatory data portability to allow consumers to easily switch to other platforms.

[999] See 4.5 of Chapter 4 for the proposed test.
[1000] See Dethmers and Engelen (n 935) 89. Predatory pricing cases have been dealt with severe fines.

7. TYING ESSENTIAL INPUTS WITH OTHER PRODUCTS	The *Microsoft* case can be used as a template. Competition authorities can come up with the ideal remedy but may require consultation with industry regulators in case technical aspects are involved. Example- Using technical experts to consider whether a dominant digital platform firm cannot sell its products separately.

5.4.1 Excessive data collection and unfair trading conditions in digital markets[1001]

Infringement- This infringement concerns online platforms that collect consumer data in return for providing their services such as social media platforms like Facebook, Twitter and Instagram. The infringement concerns collection of data from users without active consent of users such as in the case of third-party tracking where a site that is not the one that is being used by the user collects data on the user's preferences regarding their web search preferences. The personal data of consumers is used by the social media platform firms to direct relevant advertisements to the consumers and is sold to third-party firms which pay a monetary sum to the platform. In order to view the content provided on the platform and to be able to connect to other users, consumers pay by parting with their data and by providing their attention to view advertisements. The Infringement occurs when the consumers are provided 'take-it-or-leave-it' options by the firm when it comes to data sharing in addition to complicated privacy policies provided by the platforms that restrict the consumer's ability to know how much data they are sharing with the platform. The German case of *Facebook* is one of the only cases to deal with this issue so far. In the case, Facebook was found to have abused its dominance by engaging in third-party tracking by embedding cookies on user devices and imposing a take-it-or-leave it situation for users by the Bundeskartellamt.[1002] The class action case initiated in the UK by

[1001] See Section 3.4 of Chapter 3.
[1002] See *Facebook* Bundeskartellamt (n 379); See 3.3.1.

Liza Gormsen against Meta/Facebook has a similar set of facts to the German case.[1003] The remedy sought in that case interestingly is mainly damages to the whole class rather than a behavioural remedy. The CJEU has also confirmed that such an infringement may be brought by a competition authority and that use of data protection legislations in an Article 102 TFEU case as would be in a case relating to excessive data collection by a dominant digital platform firm can be possible.[1004]

Remedy- The decision of the German Supreme Court, which is so far the final decision by a court in the case of *Facebook Germany* prohibited Facebook from processing consumer data without additional consent when it came to data outside the website.[1005] This allowed the Bundeskartellamt to come to its finding that Facebook's conduct amounted to abuse of market power as it encroached upon fundamental rights of consumers as the lack of choice leads to infringing of their right to self-determination.[1006] The GDPR is another tool that was referred to in the case and can be used in data extraction cases along with the DMA.

Article 5(2) of the DMA prevents processing, combining, cross-use of personal data without the active consent of the end users under Article 5-7 GDPR. Article 5 of the GDPR limits the acquisition of data to what is necessary in relation to the purpose for which it is processed. This provision limits data extraction from third-party sources where it may not be deemed necessary. For data to be lawfully processed, Article 6 of the GDPR needs to be complied with while active user consent is a must under Article 7 of the GDPR. Consumer protection legislations such as Unfair Commercial Practices Directive and the Unfair Contract Terms Directive seek to protect consumers from misleading actions of firms and from unfair contract terms by mouth or writing respectively, which are relevant in the case of unclear data collection policies. One of the remedies that has been suggested is the use of a double opt-in policy which makes sure that consumers are informed of how much data they are providing to the firm.[1007]

The *Facebook* case and Article 5(2) DMA make it clear that the main remedy that could be suggested in this case is to prevent gatekeeper firms from extracting consumer data unless the conditions stated above have been complied with. A monetary penalty may be possible as demanded also in the *Gormsen v. Meta* case (though it was rejected). Another remedy is to

[1003] See *Gormsen v. Meta* (n 373); See also 3.3.1.
[1004] See *Facebook Germany* CJEU Decision.
[1005] See *Facebook* Bundeskartellamt case. In the case, the Bundeskartellamt and the Court relied on Section 19 of the German Competition Act (GWB) which is a power provided to National Competition Authorities (NCAs) under Article 3 of Regulation 1/2003. Under Article 3(2), NCAs can even implement stricter national laws.
[1006] See *Facebook* Bundeskartellamt [539].
[1007] See Economides and Lianos (n 396).

provide consumers the option to pay to use the service in case they do not wish to share their data. This is set to be available to consumers in the near future.[1008]

Benefits of remedy- The use of competition law, consumer protection law and data protection law together allow aspects such as unfairness, transparency and proportionality to be considered from a more holistic approach as all three facets of the law have similar principles and uphold consumer protection as one of their main goals. The emergence of the DMA makes it easier to deal with such infringements as Article 5(2) of the Act refers exactly to this infringement removing any need to consider interplay between the different laws which may be more tedious. As was seen in the *Facebook Germany* case, the approach of equating a consumer protection or data protection infringement to an unfair condition under Article 102(a) TFEU would allow the competition authority to pass a fine of up to 10 percent of annual revenue which is higher than the 4 percent under the GDPR while it is significantly less under consumer protection legislations.[1009] However, the DMA allows the Commission to impose a fine of up to 10 percent as well. The DMA can be seen to have dealt with the procedural issues that arise while dealing with data extraction cases as noted in Chapter 3.[1010]

The remedy relating to a double opt-in seems to be a valid one that will allow consumers to make the sovereign decision of allowing the firm to process, combine or cross-use their data. It may be possible to also issue a fine for the sake of deterrence which is within the powers of the Commission and has also been imposed in past cases.[1011]

Costs of remedy- The High Court of Dusseldorf's view in the case of *Facebook Germany* was that there was no damage to competition as users suffered no financial loss and that there was no causality between the market power of Facebook and its privacy and data collection policies.[1012] The High Court also opined that consent for data combination from users was obtained freely in return for using the platform's services as users had an option of not using the services of the platform. These reasons made the Court view the case as one that does not concern competition law mainly because there is no relation between the dominance of Facebook and its practices with regard to data collection.

[1008] Geoffrey Fowler, Facebook's new $12 fee is straight out of Don Corleone's playbook, Washington Post, (17 March 2023), https://www.washingtonpost.com/technology/2023/02/23/facebook-instagram-fee/.
[1009] See Volmer and Helmdach (n 546).
[1010] See Section 3.6.
[1011] See Section 5.4.5.
[1012] See Facebook High Court (n 430).

Consumer data is an essential requirement for the existence of social media platforms and them providing their services for no monetary cost. A decision that prohibits collection of consumer data may lead to quality deterioration of the platform's services and may lead to the platform charging consumers to use their services.[1013] While it is important that consumers do not get exploited by platforms, remedies requiring firms to limit data collection may lead to a move away from how these firms function which may not be beneficial to consumers. One of the limitations of the DMA is its wide scope and while the use of Article 5(2) will prevent unfair data collection, it may also lead to the various benefits to consumers in terms of free services being eliminated.

It may be hard to calculate the fine based on the level of harm that has occurred due to data not being valued as a unit of currency. Fining a firm may also lead to disincentivizing innovation rather than promoting it. Overall, a strong disclosure regime consisting of a double opt-in seems to be the most effective remedy in this case.

5.4.2 Self-preferencing

Infringement- This infringement refers to a case where a dominant entity promotes its own products over those of competitors in the downstream market by leveraging its power or dominance in the first market. When concerning digital platforms, the case of *Google Shopping* has contextualized this infringement very clearly. When a dominant firm or core platform engages in promoting its own brand more than those of rival brands, a case of self-preferencing occurs as its downstream competitors are unable to access the upstream service under equal terms.[1014] The main concern here is that the dominant firm can exclude smaller rivals from competing with its own brand due its ownership of the platform. In the case of *Google Shopping*, the Commission noted that evidence showed that the results that were shown higher on Google's search results received far more clicks and views from consumers which is a significant setback for smaller firms on Google's platform that are trying to establish their brands. The main issue in the case of self-preferencing is that the results that may seem better ones when ranking is carried out in an organic manner do not appear on the top. The

[1013] See Haucap (n 497).
[1014] See *Google Shopping* GC Decision [155].

Commission showed that consumers click on the top results most of them time showing a harm to competition in this case.[1015]

Remedy- The remedy in *Google Shopping* can be considered a template for remedies concerning cases related to self-preferencing which can lead to discussion on the effectiveness of such a remedy for an infringement of this sort. The Commission fined Google 2.4 billion Euros as they considered it a grave infringement and ordered Google to stop the infringement by taking measures to make the process of allotting search rankings uniform for rival comparison-shopping services and its own shopping services. In the case, an auction-based mechanism was accepted as an appropriate remedy which would treat every bidder equally.[1016]

Under the DMA regime, Article 6(5) of the DMA obliges a core platform form refraining from favouring its own products or those of its subsidiaries and apply fair and non-discriminatory conditions to the ranking process. This provision can be seen to be a direct result of the *Google Shopping* case. This is also similar to an abuse under Article 102(c) TFEU under the *MEO* criteria which was not considered in *Google Shopping*.[1017]

A different remedy that can be imposed in this case is of separating the different operational units of Google that are involved in the process of allotting and bidding search places from those that are direct subsidiaries of it competing with other downstream competitors. This will prevent Google from being able to discriminate between its own brand and other brands.[1018] While a full divestiture may not be needed in a case such as this, physical barriers can be set up between the two units of business which allowed the anti-competitive action.

Benefits of remedy- In the case of *Google* Shopping, it was noted that user traffic is important for comparison shopping services as it allows the firms to generate reviews and allows them to know about the relevance of products.[1019] It was found that the first three clicks accounted for up to 65 percent of clicks on desktop and 70 percent on mobile devices while the top ten results account for all 95 percent of clicks.[1020] This shows the importance of being placed higher on the search results. The remedy imposed on Google regarding making the process of allocation of search ranking fair and non-discriminatory seems to be proportionate to the response while

[1015] See *Google Shoppping* Commission Decision [336-43].
[1016] ibid.
[1017] See Deutscher (n 34).
[1018] See Cave (n 917).
[1019] See *Google Shopping* Commission Decision (n 457) [444-453].
[1020] Competition and Markets Authority, 'Online Search: Consumer and Firm Behaviour, Review of the existing literature' (7 April 2017) [1.6(c)]; See also *Google Shopping* Commission Decision (n 457) [455].

the fine of 2.4 billion Euros creates a deterrent effect. If designated as a gatekeeper under Article 3 DMA, the activities of a search engine like Google can be kept under check using Article 6(5) of the DMA in future cases of self-preferencing.

Another remedy that could be imposed in the case of self-preferencing is a structural one where the incentives to engage in the infringement are taken away. Such a remedy can makes sure that the dominant firm does not have the opportunity to engage in committing the infringement again in a different form and does not require constant supervision as is the case with the remedy that was accepted in *Google Shopping*.[1021]

Costs of remedy- While that may seem to be an infringement, there is a shift in the logic used when considering other markets such as supermarkets where the supermarket places its own products at more visible places than those of competitors. In that case, the dominance of the supermarkets is not questioned (though there is more competition in the supermarket sector),[1022] and they can place their products at better locations than those of competitors. There are also no clear reasons regarding the different feeling for a consumer when they view a product at a supermarket compared to viewing one in a website. In the case of a website and a supermarket, the reason that a consumer would choose to buy the brand's own product compared to those of a competitor may be because there are clear benefits in terms of a lower price or in terms of better quality. It may be possible that competition authorities allow online platforms such as Google to engage in self-preferencing as they do in the case of supermarkets if there are more able competitors in the market

Another issue that arose as a result of the remedy is a question regarding its effectiveness. It was even admitted by the Commission that traffic to rival comparison shopping services did not occur but rather made rival services even more invisible as discussed earlier in this chapter.[1023] From a consumer viewpoint, the BEUC condemned the decision of the Commission to accept the auction-based mechanism as a suitable remedy in the case as there is a possibility of impartial results still being shown to consumers since the auction-based remedy would grant the highest bidder with the higher search ranking rather than the most relevant result being shown higher.[1024] A structural remedy may be more effective than this

[1021] This has been further explained in part 5.2.3 of this Chapter. See Rigaud, (n 908); See also Marsden, (n 842).
[1022] Statista, 'Leading grocery retailers ranked by market share in Europe in 2017', https://www.statista.com/statistics/1102477/leading-retailers-by-market-share-in-europe/.
[1023] See part 5.2.3 of the chapter; See Marsden (n 842).
[1024] BEUC, 'Re.: Google case: Consumer concerns on auction-based model for shopping services', Ref.: BEUC-X-2017-098, (21 September 2017).

remedy, but the implementation of a structural remedy is not an aspect that has been considered in the past and Article 16 of the DMA also maintains the status quo where behavioural remedies are preferred over structural ones and only the failure of behavioural remedies may allow for a structural remedy. Even if a structural remedy is considered, it would be hard to justify why such a remedy is required in the case of an online platform firm and not in the case of physical supermarkets even though both engage in the same practice but only the former's actions are brought under competition law scrutiny.

5.4.3 Unauthentic search results[1025]

Infringement- This infringement concerns dominant online search engines providing unauthentic results in return for searches carried out on their website of a dominant firm which may amount to an exploitative abuse under Article 102(a) TFEU as was introduced in Chapter 3. In the *Google Shopping* case, one aspect that was not dealt with was of consumers providing information regarding their preferences to the firm but getting results that may not be genuine in return. As is the case with competition law in general, an exclusionary harm once shown supersedes the exploitative one caused in the case as competition authorities mainly concern themselves with exclusionary harms more than exploitative ones. However, in a case such as this one, there are both types of harms occurring which ought to be considered in the assessment.[1026]

The harm in such a case is similar to the harm caused due to deception or misleading actions of a dominant firm. In the case of a search engine, the consumer assumes that they are provided valid results which allow them to make a choice based on the different options provided to them. Unauthentic results lead to consumers making a manipulated choice which can also be considered an infringement under Article 102(a) of the TFEU in addition to other consumer protection Directives also being invoked. The consumer also provides the online firm with their information by virtue of having searched for something and is provided unfair results as a result of self-preferencing by the online firm. This can also amount to an unfair pricing abuse under

[1025] See Section 3.3.2 of Chapter 3.
[1026] See Akman 2012 (n 277) 218-20. Akman argues that for an exploitative harm to be considered an exclusionary harm should also be shown; See also 3.6.2 of Chapter 3.

Article 102(a) TFEU if consumer data can be quantified in terms of price as suggested in Gormsen's suit against Meta/Facebook.[1027]

Remedy- Since the infringement deals with deceptions and misleading actions, Article 6(2) of the Unfair Commercial Practices Directive can be invoked which deals with misleading actions by businesses. Article 5(1)(a) of the GDPR deal with lawfulness and transparency. In a case where personal data is obtained and unauthentic results are provided in return, the case can be considered one where data has been obtained unlawfully. Similarly, Article 6(1)(d) of the GDPR stipulates that data processing shall be lawful only when it is in the interest of the data subject. In the case of unauthentic results, this is not the case. These can be considered unfair conditions under Article 102(a) TFEU which can involve assessment from the Commission as past cases of unfair trading condition have allowed for a condition to be considered unfair when there has been breach of a different facet of the law.[1028] A suitable remedy can be to impose a stop order and either compensate users or for a fine to be imposed under Article 23 of Regulation 1/2003. In a more recent case law, the French Competition Authority ordered Google to negotiate with press publishers for remuneration for publishing their content as they held that denying it would be an unfair condition.[1029] A similar remedy can be imposed in the case of unauthentic search results where Google can be ordered to provide complete information regarding the process of placement of search results.

To make the search engine market more competitive, Argenton and Prufer and suggested that all search engines disclose their data on consumer clicking behaviour which might help increase the quality of search engines by changing the market structure from a monopoly to a competitive oligopoly.[1030] This could help in furthering innovation in search engine markets.

Benefits of remedy- EU Competition law cases relating to exclusionary harms outweigh cases that deal with exploitative ones as there is a tendency to invoke competition law only when other business users are harmed rather than when end consumers are harmed. In a case concerning misleading actions by firms, the role for competition law is to prevent a dominant firm from further entrenching their dominance. By using consumer law, data protection and

[1027] See *Gormsen v. Meta* (n 373); See also Chapter 3.3.2.
[1028] See *SABAM* (n 536); See also *GEMA* (n 537). It was held in both cases that abuse copyright clauses would be considered an unfair trading condition.
[1029] See Google French Publishers case (n 541).
[1030] See Argenton and Prufer, (n 655).

competition law together, the economic use or misuse of data can be considered from a wider viewpoint. This can assist in designing the ideal remedy on a case-by-case basis.

Disclosing data on consumer behaviour would lead to other firs being able to compete with the current dominant search engine firm (Google). This is similar to using the essential facilities doctrine with the goal of increasing search quality for end users. This is however achieved as a result of increase in competition and a change to the market structure.

Costs of remedy- One concern for competition law remedies to play a role in cases concerning deception is the link to the infringing act and the dominance of the firm. Using competition law only to be able to create a higher deterring effect through a higher fine may not seem logical. Instead, the possibility of imposing higher fines to consumer protection violations can be addressed separately without involving competition law. The case of unauthentic results may also be contested on grounds of whether they are unauthentic as the issue also deals with whether a dominant platform can place its own results in better positions than those of competitors. The lack of clarity regarding why platforms are different from supermarkets or other similar markets where dominant firms can place their own products at more favourable places than those of competitors is one reason that leads to more questions regarding self-preferencing.

Though the application of the essential facilities doctrine may be advised, EU Courts have rejected such application so far and chosen to apply a new criterion (no economic sense test) as there is no refusal to supply which is inherent to the essential facilities doctrine according to the General Court.[1031] Another issue is regarding sharing of consumer data which may lead to breach of privacy. Therefore, even if search engines were to share data on consumer behaviour, data of individual users needs to be omitted as that may lead to exploitative outcomes.[1032]

5.4.4 Cross-subsidizing between different sides: Predatory pricing

Infringement- Predatory pricing occurs when a dominant firm charges a price that is below a measure of cost of the product or service. In brick-and-mortar markets which are usually characterized by a seller selling a product or service to a buyer, finding a predatory price is

[1031] See *Google Shopping* GC Decision.
[1032] See Argenton and Prufer (n 655) 99.

more straightforward as it only requires an assessment of the price and cost. In digital markets, the emergence of platforms has made this process more complex due to the multiple sides involved in the market. A platform engages in predatory pricing in digital markets usually by charging below cost to one side of the market (usually the end user side) while subsidizing the losses from another side (usually the intermediate seller side). An example of predatory pricing concerning a platform market is where a platform charges one side a low to no price such as in the case of online search, while charging advertisers a price that subsidizes the price charged on the other side. The assessment of harm that is caused as a result of a dominant entity engaging in predatory pricing differs from jurisdiction to jurisdiction as some jurisdictions like the US prefer a higher standard of proof and require recoupment of prices at a later stage to be shown while in the EU, the Commission does not require recoupment to be shown.[1033] Chapter 4 proposed a new test to assess predatory pricing in the EU by considering the use of LRAIC as the measurement of cost rather than AVC to find a presumption of abuse in the case of platform firms that come under the scope of Article 3 DMA.[1034]

Remedy- As far as remedies in the EU go, the most recent case concerning predatory pricing was of *Qualcomm*, where a chip manufacturer was fined 242 million Euros for selling its chipsets below cost with the aim of forcing its competitors out of the market which was 1.27 percent of the firm's turnover from the previous financial year.[1035] The fine was imposed to deter similar anti-competitive practices from occurring in the future. The fine can also be used to subsidize the next best competitors in the market. A structural remedy may also be imposed in case there are high concerns regarding foreclosure of competition. This could be done by joint working of the industrial experts and competition law authorities similar to the case of *Severn Trent* where a divestiture of operations was accepted by the Regulator, Ofwat.[1036]

Benefits of remedy- Firms within the scope of Article 3 DMA have significant influence over their respective markets. The element of choice is important for the long-term benefit of consumers and the market which cannot be substituted by short term price cuts that lead to elimination of competition.[1037] A fine that subsidizes competitors who may have been eliminated or harmed due to cross-subsidization by a dominant platform in a predatory manner

[1033] See *Brooke Group* (n 666); See also *AKZO v Commission* (n 644).
[1034] See Section 4.4 of Chapter 4.
[1035] EU Commission Press Release, Antitrust: Commission fines US chipmaker Qualcomm €242 million for engaging in predatory pricing, 18 July 2019.
[1036] See Section 4.2.5.
[1037] See Lina Khan (n 756).

will allow competition to be restored in the market. The aim of the DMA has been to make markets more contestable. Imposing a fine may deter a firm from not engaging in predatory pricing, but using the fine to improve the quality of a competitor may be more beneficial. A structural remedy can be imposed if competition authorities can work with industrial digital market experts who would be able to suggest the best method of operational divestiture.

Costs of remedy- The main cost of applying competition law to prohibit firms from offering lower prices that may be below cost is that consumers will end up paying higher prices. If the goal of competition law is consumer welfare, then the benefits to consumers in terms of lower prices must be weighed against the removal of competitors who may not have been as efficient as the dominant firm that was offering lower prices. In the case of a firm like Amazon, the ability to price below the price offered by other firms is also a result of the firm being able to cut its costs due to the increase in size. This can be beneficial to consumers as well as force other firms to become more innovative to compete against the more efficient dominant firm. Subsidizing competitors will have repercussions for innovation and dominant firms attempting to initiate conduct that may have benefits to end users.

Overall, finding of an abuse under the proposed test allows a core platform firm to provide an objective justification to show efficiencies arising out of the conduct such as in the case of *Bottin Cartographes*.[1038] This shows that firms that price below overall LRAIC do not have a competitive intent which justifies the imposition of a fine. A structural remedy can be hard to implement and may not be directly relevant or proportionate to pricing below cost abuses.

5.4.5 First-degree or perfect Price Discrimination

Infringement- Personalized pricing refers to price discriminating between consumers based on their personal data.[1039] There are distributional benefits that arise from personalized pricing such as more consumers being able to afford a particular product.[1040] While there are many benefits that consumers gain from personalized pricing, one of the aspects of concern is that it leads to dominant firms having the ability to engage in First-Degree price discrimination. This refers to pricing exactly at the maximum willingness to pay of a consumer based on information

[1038] See *Bottin v. Google* (n 745).
[1039] See Section 2.1 of Chapter 2.
[1040] See Section 2.3.3 of Chapter 2.

shared by the consumer. By engaging in this, a firm would be able to appropriate all the consumer surplus. While this is possible in theory, it is not possible in practice currently as firms do not have such accurate information on the WTP of consumers that they will be able to price discriminate perfectly. However, there are concerns that the use of algorithms will allow perfect price discrimination to occur in the future unless there are steps taken to prevent this.[1041] While this can still be beneficial, there is a possibility of all the consumer welfare being expropriated by the price discriminating firm.

Remedy- Article 102(c) TFEU can be used in cases relating to price discrimination that may seem to harm end users and intermediate customers.[1042] However, there are no cases concerning digital platform firms that deal with personalized pricing as a competition law abuse. Most of the non-platform cases also deal with intermediate customers and not end users which makes its application to find suitable remedies in digital markets even harder even though such application can be possible under Article 102(c) TFEU.[1043] In addition to that, the ambiguous effects of personalized pricing on end users makes the application of competition law even tougher as it is hard to show an increase or decrease in consumer welfare.

However, Consumer Protection such as UCPD deal with preventing harm to vulnerable consumers and with misleading actions. These can be relevant in the case of personalized pricing while Anti-Discrimination Directives such as the Race Directive[1044] and Gender Directive[1045] provide blanket bans on discrimination when concerning certain criteria. The data minimisation principle under Article 5 of the GDPR can be inferred to mean that it prevents data usage for activities such as price personalization unless the user actively consents for it. Under Article 22 of the GDPR, the end user may be able to contest a decision in case they feel that their data has been used to their detriment.

For firms with the scope of Article 3 of the DMA, Article 6(2) of the DMA prohibits a dominant firm from using data that is not publicly available. This refers to not using the personal data of users unless it is explicitly provided to the platform. They are required to refrain from using data that may be generated through activities on the platform by end users. This provision seems to tackle the use of big data towards exploitative ends which may include perfect price discrimination. Article 5(2) of the Act also requires firms to refrain from combining data from

[1041] See Ezrachi and Stucke (n 172) 485-492.
[1042] See Section 2.5.7.1 of Chapter 2.
[1043] See *1998 Football World Cup* case (n 271). This is one of the very few end user price discrimination cases.
[1044] Council Directive 2000/43/EC of 29 June 2000.
[1045] Directive 2006/54/EC of the European Parliament and of the Council of 5 July 2006.

different sources unless the user actively consents to such use which is another provision that can be used to prevent firms from perfectly price discriminating. These two provisions of the DMA could be relied upon along with Article 22 of the GDPR in order to deal with instances of price personalization that may seem harmful to consumers.

A possible remedy to allow the positive effects of price personalization to take place while preventing certain types of price discrimination can be achieved by implementing a strong disclosure regime which informs consumers regarding the different variables used to price discriminate.[1046] Adding an option to opt-out of price discrimination would make the process even more feasible.

Benefits of remedy- Competition law can be used in the case of personalized pricing by considering redistribution considerations. The use of competition law and the other legislations to prevent perfect price discrimination prevents dominant firms form exploiting consumers and creates a deterrent effect. Personalized pricing may by itself be detrimental to consumers as it uses consumer data in a manner that is not previously agreed for by the consumers as it requires data combination from different sources which goes against Article 5 GDPR. This can also be construed to be an unfair condition under Article 102(a) and the Commission can pass appropriate remedies to stop such a practice. The use of the DMA to personalized pricing cases can act as a further deterrent to exploitative actions by core platforms. In the case of personalized pricing, the cost of intervention may outweigh the benefits if the learnings from Chapter 2 of the thesis are considered.

Costs of remedy- The use of competition law in price personalization cases to prevent perfect price discrimination would lead to harm to consumers as it would prevent firms form being able to price discriminate and allow new consumers to enter the market. If competition law allowed for total welfare to be considered the metric to judge whether price discrimination leads to an increase or decrease of welfare, then such a case would allow competition law to be used as a tool to accurately judge whether personalized pricing in a case has led to efficient outcomes. However, the current structure of competition prevents this from happening as computing consumer surplus in the case of personalized pricing would be an impossible task.

The other legislations may be used to prevent discrimination in a certain manner or on certain grounds. However, there are provisions in the various legislations mentioned in the 'remedy'

[1046] See Section 2.5.7 of Chapter 2.

section that allow for discrimination to occur even on prohibited grounds if there is a tangible benefit to consumers. Disallowing price personalization due to the fear of perfect price discrimination will only lead to eroding of the benefits to consumers. A strong disclosure regime may also lead to collusion and price fixing taking place in case there are more than one firm in the market.

Personalized pricing is one of those practices which have arisen as a result of growth of digital platforms that has more positive effects attached to it than negative ones. Using competition law or other consumer protection legislations to prevent the practice may cause more harm than lead to benefits for consumers. The best remedy in the case of price personalization can be to let the market balance itself as the distributional effects in terms of new consumers being added to the market cannot be accounted for by viewing the practice purely from a discrimination point of view. It is important to judge the overall effects to the market before decided whether there is a benefit to society.

5.4.6 Preventing data portability

Infringement- Dominant platform firms can restrict data transfer by users from their platform to a different one. Platforms such as social media platforms can try to lock-in consumers by resorting to techniques such as only allowing consumer data and information to be used on their website. An example of this is to prevent multi-homing between different social media platforms and disallow sharing of information from one platform to another. This creates barriers for consumers to be able to transfer their data to other competing services as users are locked-in which can lead to exclusion of competitors. The exclusion would depend on high how the switching costs are. A dominant firm may be able to block other platforms from being able to access any data shared on their platform which may lead to higher switching costs for users as the users will have to provide all their information from scratch in order to use the services of competitors which may lead to hesitancy among users to switch.

Remedy- Article 15 of the GDPR allows a data subject to access data provided to a controller. Under Article 20 GDPR, the data subject has the right to receive and transmit the data provided to a controller. The data subject also has the right transfer the data to another controller at their will. Under competition law, Article 102 TFEU can be applied as there are both exploitative

harm to consumers and an exclusionary one to other sellers. Its use along with the GDPR will allow imposing harsher penalties.

Considering the use of the DMA regime, Article 6(9) of the DMA requires core platform firms to provide effective data portability in line with the provisions of the GDPR. Article 6(6) of the DMA requires a core platform to refrain from preventing end users from switching between different online service providers while Article 5(7) DMA requires allowing end users to interoperate. By utilising these provisions, data portability related infringements can be dealt with. In case of non-compliance, the ideal remedy can be a fine of up to 10 percent in line with the DMA and an order to allow interoperability.

Use of radical remedies such as mandatory data sharing can allow consumers to access the services of different platforms with easier switching.[1047] Mandatory sharing of algorithms may also be a remedy in this case which can allow the development of competing platforms that allows in increasing the number of platforms to choose from for consumers.

Benefits of remedy- The main benefit of mandatory data portability is that consumers will be able to use the services of different platforms by combining their data from different websites at their will. This helps with consumer welfare which is a common goal of data protection and competition law as far as the use of data is concerned as can be inferred from Article 1 GDPR which relates to rules relating to the protection of fundamental rights of natural persons. Similarly, competition law has considered consumer welfare its main goal going by past EU case laws. It would also lead to smooth functioning between the services of different platforms leading to a benefit to consumers and may also be able to increase the traffic of competing platforms as they may now be able to complement each other. An example of this is social media platforms such as Twitter and Instagram allowing each other's users to share information form the others' platform. Regarding user privacy, data portability only takes place when the user wishes it and therefore would adhere to the conditions of consent mentioned in Article 7 of the GDPR. Mandatory data sharing can be suitable in allowing consumers to port their data from one platform's website to another's. Mandatory algorithm sharing can act as a remedy to reduce the dependency on one platform's service as other competing platform may be able to develop their own websites that can provide consumers a better-quality service.

[1047] See Graef (n 952).

Costs of remedy- One of the costs of imposing portability measures are that firms would be disincentivized from creating proprietary information in the first place if they are aware that the information would be potentially shared with competitors.[1048] This is because firms compete on being able to outdo each other in the market by competing on better techniques to increase the number of consumers. By allowing less efficient firms to also have access to consumer information generated on the platform's services, the overall efficiency of the market gets lowered. The benefits of data portability in terms of consumers being able to transfer their data freely need to be balanced with the harm to innovation that is possible. Usage of mandatory algorithm sharing would create the same effect of stifling innovation as the firm that dominates the market due to its efficiency and better-quality services is required to help in creating competitors for itself using its own technology. Gormsen and Morales have also noted that this remedy's success is dependent on interoperability of platforms.[1049]

5.4.7 Tying essential inputs[1050]

Infringement- A dominant firm may try to foreclose the market and exclude competitors by tying or bundling its products which is an abuse of dominance under Article 102 TFEU. Tying refers to requiring a customer that purchases one product to purchase another related or unrelated product with while bundling refers to offering products jointly.[1051] Both may have positive effects for the customer in terms of being able to obtain better products at more cost-effective ways, but this may also be a way to foreclose the market for the products of competitor firms as the customer is required to buy all the products from the dominant firm. It can also have the effect of the dominant firm extending its dominance in the adjacent market where it wasn't previously dominant.[1052] A case example of a digital platform engaging in such a practice is of Meta/Facebook potentially tying its Facebook platform with its online ads service, Facebook Marketplace which led to the Commission opening proceedings against the firm.[1053]

[1048] Aysem Diker Vanberg, 'The right to data portability in the GDPR: What lessons can be learned from the EU experience?' (2018) 21(7) Journal of Internet Law, 12, 12-21.
[1049] See Gormsen and Morales, (n 502).
[1050] This infringement has not been considered in detail in this thesis but the imposing of remedies provide important lessons.
[1051] Communication from the Commission- Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, (2009/C 45/02), [47-49].
[1052] ibid [50-58].
[1053] *Facebook Marketplace,* AT.40684, Opening of Proceedings- (04/06/2021)

This can be considered akin to imposing an unfair trading condition as well since end consumers have little to no choice in using only part of the platform that they wish to use.

Remedy- In the case of tying in brick-and-mortar markets, the Commission can impose remedies in the form of an order to stop future tying of the product and impose a fine. While the *Facebook Marketplace* case has not been decided by the Commission, two cases related to tying in digital markets involve Microsoft and Google. The remedies imposed in the two cases may be able to inform regarding what the possible remedies could be in the *Facebook Marketplace* case.

The *Microsoft v. Commission* case is one that dealt with this issue. In the case, Microsoft was found to have illegally tied its Windows Media Player with its Microsoft Windows Platform and was fined 497 million Euros and was ordered to produce a version of the product without the tied Media Player as part of the remedy.[1054] In another case, Microsoft was found guilty of tying its Internet Explorer browser to its operating system. The Commission accepted Commitments under Article 9 of Regulation 1/2003 by Microsoft where it would offer a choice screen to users to prompt them to choose between the various browsers in the market without setting Internet Explorer as the default browser.[1055] However, the Commission found Microsoft to have not complied with the commitments and therefore imposed a fine of 561 Million Euros which was the first time the Commission had to fine a party for non-compliance with a commitments decision.[1056]

The most notable case of tying concerning a digital platform firm is of *Google Android* where the Commission found that Google, which has a dominant position, had engaged in tying of its Google Search App on all its Android devices and its Google Chrome browser on all mobile Android devices as it creates a status quo bias among users.[1057] The Commission subsequently fined Google 4.34 billion Euros for breach of competition law rules and ordered Google to stop mandatory tying of its Search Apps and Browser App.[1058] This was later affirmed by the General Court in September 2022.[1059]

[1054] Case T-201/04, *Microsoft v Commission*, [2007] ECR II-3601.
[1055] *Microsoft (Tying)*, Case COMP/39.530.
[1056] European Commission Press Release, Antitrust: Commission fines Microsoft for non-compliance with browser choice commitments, 6 March 2013.
[1057] See *Google Android*.
[1058] European Commission Press Release, 'Antitrust: Commission fines Google €4.34 billion for illegal practices regarding Android mobile devices to strengthen dominance of Google's search engine', (18 July 2018).
[1059] Case T-604/18, *Google and Alphabet v Commission (Google Android)*, Press Release No 147/22, (14 September 2022).

The DMA may be applicable to Google if/when it is designated as a gatekeeper. The provisions of the DMA are in line with the *Google Android* decision. Article 5(7) of the DMA can be applicable to tying cases as it requires core platforms to refrain from requiring business users to subscribe or use other core platforms services to access the main services of the core platform. Article 6(3) also requires core platforms to allow the use of third-party software applications and application stores. With the DMA having come into force on 1 November 2022, it may be able to deal with such issues by itself without requiring the use of competition law.

A radical remedy that is possible in the case of the search engine market is of subsidizing the second biggest competitor in the search market (possibly Bing) in order to increase its market share and for it to be able to compete with Google.[1060] If the fine imposed on Google can be used towards building an able competitor to Google, competition in the market can be restored. There are harms that can arise as a result of such a remedy such as choosing the competitor who should be subsidized.

Benefits of remedy- The benefit of the remedy in the Microsoft cases or the Google Android case is to create deterrence for dominant firms from tying their main product with another product to utilise their dominance in one market to become dominant in another. It leads to more choice for consumers in terms of being able to choose different brands or firms for their different needs instead of having to by a tied or bundled set of products form one firm.

The cost on the other hand is that this may lead to the consumer being forced to pay more to obtain the products differently. If consumers are offered the chance to buy either a tied product or just a part of it, then the situation may seem overall beneficial to consumers as they can choose to buy a possibly cheaper tied product from just one firm as was ordered in the case of Microsoft.

In the case of a digital platform like Google, their practice of imposing a mandatory download of the Google Search App in the *Google Android* case leads to restriction of innovation as development of new open-source versions of Android are restricted. It also led to harm to competition as other mobile based browsers were prevented from competing effectively due to the requirement of pre-installation of the Google Chrome browser.[1061] A radical remedy such as that of subsidizing the next best competitor can solve the problem of lack of competition

[1060] See Gal and Petit, (n 900).
[1061] ibid.

and limited choices for consumers. If a firm such as Google is considered superior in terms of the quality of its search engine and other products in other related markets, subsidization to the next best firm may allow that firm to product a better product and try to compete with the superior product of Google.

Cost of the remedy- A fine such as in the case of Google is one that will create a deterrent effect among dominant platforms when it comes to practices such as tying. An alternate view of software licensing agreements such as in the case of *Google Android* is that they resemble franchising agreements.[1062] It can also be inferred that the ecosystem created by Google is unable to rival one created by Apple which does not face the same competition law scrutiny when it comes to tying as faced by Microsoft and Google.[1063] The decision in *Google Android* interferes directly with Google's business by making it seem that the Android platform is an essential entity and cannot be used to make profits by Google.[1064] While there are many issues with regard to disincentivizing a platform from creating new ecosystems as they might not be able to profit from them, the Commission is of the opinion that other smaller players in the market will be incentivized to compete with a dominant platform such as Google which is why the provision is also seen to appear in the DMA.

It has been established that Google is dominant in the search engine market.[1065] Their dominance is mainly due to their product being better than those of competitors such as Bing and Yahoo as was claimed by Google's lawyers in their appeal to the General Court concerning the fine imposed in the *Google Android* case.[1066] This does not give Google the right to abuse their dominance at a later stage but the fact that the other competitors were not able to compete with the quality of the service provided by Google should be a factor in considering whether an action such as in this case of tying its search tool to the device actually leads to entrenchment of their dominance because there is a presumption that consumers end up using Google's search

[1062] Pablo Ibanez Colomo, 'Android meets Pronuptia, or why software licensing is like a franchising agreement', (Chillin'Competition, April 2016), https://chillingcompetition.com/2016/04/25/android-meets-pronuptia-or-why-software-licensing-is-like-a-franchising-agreement/.
[1063] ibid.
[1064] Pablo Ibanez Colomo, 'The Android decision is out: the exciting legal stuff beneath the noise', (Chillin'Competition, July 2018), https://chillingcompetition.com/2018/07/18/the-android-decision-is-out-the-exciting-legal-stuff-beneath-the-noise-by-pablo/.
[1065] Statista, Worldwide desktop market share of leading search engines from January 2010 to June 2021, https://www.statista.com/statistics/216573/worldwide-market-share-of-search-engines/.
[1066] Foo Yun Chee, 'Case T-604/18, Google vs European Commission;, 'Consumers aren't stupid': Google lawyer rejects EU market abuse ruling', (1 October 2021), Reuters, https://www.reuters.com/technology/consumers-arent-stupid-google-lawyer-rejects-eu-market-abuse-ruling-2021-10-01/.

tool due to it being tied rather than due its superiority.[1067] This assessment may be influenced by using the as-efficient competitor test.[1068] If it is foreseen that Google's conduct is not competition on the merits, then imposing a remedy is sensible.

A radical remedy such as subsidization of competitors will not be helpful in removing any problems associated with dominance as the firm that is subsidized can replace the previously existing dominant firm which would make the process of subsidizing futile or require repeated subsidization of the next best competitor. There is also no assurance whether the subsidization will make the competitor more efficient and benefit the market as it may be a case of the dominant firm being far more superior than its competitors.

5.5 Conclusion

Abuse of dominance as a concept has evolved in digital markets. The need to rethink the remedy design and implementation process has brought about the emergence of the proposed DMA and other discussions regarding the interworking of different regulatory authorities and competition authorities. This chapter discussed a list of alternate remedies mostly proposed by renowned competition law academics and assessed whether those proposals would be feasible. The DMA's role in assessing and remedying competition law infringements in the future will be vital which prompted a thorough discussion of its different aspects. This chapter has addressed how some exploitative and exclusionary digital market abuses are dealt with currently and has attempted to find the most suitable method to deal with those offences using the different legislations available.

The first few sections of the chapter are descriptive in nature including explanations on the powers available under Regulation 1/2003 and the discussion of types of remedies available. The case of *Google Shopping* was discussed extensively to understand digital market remedies and to understand the issues that arise with respect to effectiveness of them. This prompted a move towards a discussion on radical remedies that have not yet been used under competition law such as algorithmic sharing and structural separations. The application of alternate or radical remedies to seven infringements related to digital markets were considered along with

[1067] CPI, "Consumers Aren't Stupid" Google Tells EU, October 3, 2021, https://www.competitionpolicyinternational.com/consumers-arent-stupid-google-tells-eu/.
[1068] See *Intel* case (n 238) [134].

their pros and cons. The part discussing each infringement separately is a part that is unique to this chapter and has not been discussed previously in existing papers.

It was seen that competition law remedies would not be ideal in some cases such as price personalization while there they are very important in cases such as unauthentic search results or preventing data portability. In cases such as self-preferencing and tying, questions regarding the legal validity of the practice make it unclear whether imposing competition law remedies will be better for the market or not, while questions regarding prioritization of short-term consumer gains versus long-term ones were discussed in the case of predatory pricing remedies. It can be concluded that each digital market case needs to be assessed on a case-by-case basis for implementation of effective remedies. The use of tools such as market investigations, alternate remedies and new legislations provide many options for the Commission and National Competition Authorities in the EU on how they could look to deal with digital market infringements. However, it is important that these tools be used carefully in order to prevent a case of over enforcement. In many cases, it would be in the best interest of markets and consumers for competition authorities to allow the market to function freely and let inefficient firms exit the market to allow invention and innovation to take place freely.[1069] In some cases, the need might be for competition authorities to stop dominant firms from using their dominance to prevent other competitors from innovating and inventing. This chapter provides insights into how that fine line ought to be treaded in certain situations.

[1069] ibid.

Thesis conclusion

The use of competition law to prevent anti-competitive activities of dominant digital platform firms has been one of the main areas of discussion in the last decade. Aspects such as reform of competition law due to its limits in application to certain digital platform conduct were also part of these discussions, reports and commentaries. This thesis dealt with the use of Article 102 TFEU and other EU legislation such as the DMA, GDPR and Consumer Protection Directives in digital platform market cases by considering pricing-based abuses. The thesis began by introducing digital market related concepts and issues pertaining to competition law. The competition law-oriented focus of the thesis was on Article 102 TFEU in order to narrow down the substantive area of study. The overall thesis has led to the finding of general themes in terms of using Article 102 TFEU in digital platform cases. As it is important to consider which regime would stand to be the more effective one when it comes to the types of digital platform conduct discussed in this thesis, the complementary role of the DMA regime is also considered along with these general themes.

This thesis is a monograph which deals with the use of Article 102 TFEU and other legal regimes in the EU to primarily tackle price discrimination, unfair conditions, and predatory pricing within a digital market context. These practices were chosen in particular since most past EU pricing-based abuse of dominance cases under Article 102 TFEU have involved those practices. To that end, this thesis engaged with the past cases which help inform the jurisprudence on these practices and the way that they have been dealt with by the Commission and EU Courts. The monograph style of this thesis is further illustrated in Chapter 5 of the

thesis where the practices discussed in the preceding 4 chapters are engaged with from a remedial standpoint.

The monograph style of this thesis is further illustrated in the fact that Section 1.2 of Chapter 1 on the Article 102 TFEU jurisprudence is the basis for the next 4 substantive chapters. The evidence for this is in the fact that Chapters 2 and 3 engage with aspects related to consumer welfare and fairness which are goals within the scope of Article 102 TFEU as discussed in Section 1.2 of Chapter 1. Chapters 2 and 4 also have many overlapping aspects as predatory pricing which is the main topic of discussion in Chapter 4 is a form of price discrimination (which is the main topic of Chapter 2). The use of *Post Danmark I* in Section 2.5 of Chapter 2 and in Section 4.2.1 of Chapter 4 to make the argument relating to different prices being charged to different market sides is evidence of the close links between the substantive chapters of the thesis.

Another illustration of the monograph style of this thesis is on the use of the DMA throughout the thesis starting from Section 1.5 in Chapter 1 which provides a descriptive analysis of the DMA and its complementary role with competition law. The DMA is used in Section 2.6.2 of Chapter 2, 3.6.3 of Chapter 3, and throughout Chapter 4 (especially Section 4.4) to assess whether the complementary DMA regime could be used instead of relying on Article 102 TFEU. Chapter 5 of the thesis dealt with the idea of using the DMA instead of Article 102 TFEU in the case of certain types of conduct inclusive of those considered between Chapter 2 and 4. Chapter 5 of the thesis also highlights the monograph style of this thesis by bringing together the three main types of conduct analysed in Chapter 2 to 4 to find effective remedies in case those types of conduct were deemed to be unlawful.

The idea that other legislation may be used instead of Article 102 TFEU or in conjunction with it is pervasive throughout the thesis. This also shows the limits of Article 102 TFEU in its current form when digital platform cases are concerned as highlighted in Section 1.4 of Chapter 1. In addition to that, Sections 3.6 of Chapter 3, 2.6 of Chapter 2, and 5.4 of Chapter 5 engaged in depth on the joint working of Article 102 TFEU with other legal regimes. This is one of the general themes that has been noticed in this thesis. Chapter 4 also engages in the joint working of Article 102 TFEU with other legislation but restricts the scope of this to the DMA. Overall, the 5 Chapters of this thesis have noticed that there are common goals between Article 102 TFEU and the other legislation that are considered within it. In the case of the DMA, it is

complementary, but explicitly a different regime which was seen in detail in Chapter 4 of the thesis as a different test is envisaged for the two regimes.

The argument in the thesis has largely been that Article 102 TFEU ought to be used with other legislation as its sole use may not lead to effective results when the certain types of digital platform conduct discussed between Chapters 1 to 5 are concerned. The joint working of different legal and regulatory institutions is considered in more detail in Section 5.3.1 of Chapter 5 where Lancieri and Neto's framework is analysed. That section directly ties in with Section 1.4.4 of Chapter 1 which discussed the need for ex-ante assessment of digital platform related cases. What will now follow is a thematic chapter by chapter breakdown to understand the main contributions of this thesis and to also see what the final conclusion of this thesis are.

Chapter 1 of the thesis highlighted the unique features of digital platforms which have posed problems for competition agencies throughout the world. Chapter 1 of the thesis described the features of digital platforms such as the presence of network effects and tipping which lead to development of a large user base in a very short time span.[1070] The role of data in allowing for the tipping effect was also discussed in addition to the two-sided nature of platforms. All these features made the application of Article 102 TFEU in its current form harder in cases involving dominant digital platforms. One example of that is mentioned in Section 1.4.1 and 1.4.2 where the unsuitability of the SSNIP test is considered owing to the lack of monetary prices being charged to consumers in the case of some platforms that offer their services to consumers for a zero price.

Chapter 1 went on to discuss the contributions made by competition authorities and scholars from around the world on the need for reform when its application involves digital platforms. It was further realised in Chapter 1 that some practices such as predatory pricing have been very lightly discussed in some of these post-2017 contributions. Issues such as price personalization and data collection have been considered in more detail but the use of Article 102 TFEU to tackle those practices have again been only scarcely engaged upon. This prompted the writing of the subsequent chapter.

The other major contribution of Chapter 1 is the introduction of the DMA as a complement to Article 102 TFEU. The use of a separate regulatory legislation was considered in Section 1.4.4 and 1.5 of Chapter 1 considering the features of digital platforms which make the application

[1070] See Section 1.3.5.

of competition law to them hard. The importance of the DMA is highlighted in Chapter 1 and reference to it is made throughout the thesis as an ex-ante tool like the DMA would be able to prevent harmful effects before they occur for firms falling within the scope of Article 3 of the DMA.

Chapter 1 of the thesis also explained that Article 102 TFEU has undergone transformation in recent times especially in light of recent cases such as *Unilever* which have bridged the gap between pricing and non-pricing abuses by allowing the use of the AEC test to non-pricing abuses.[1071] In Chapter 1, it was noted that consumer welfare is one of the goals of competition law based on cases such as *Intel* and *Servizio Elettrico* where the focus on incentivizing efficient undertakings (based on the AEC test) is to maximise the benefit to consumers in terms of price, innovation and choice.

The AEC test was also considered in Chapter 2 in light of primary-line injury cases but it was concluded that the use of primary-line injury cases was not relevant in the case of price personalization. The Chapter went on to also argue that secondary-line injury cases such as the one in the end-consumer price discrimination *1998 Football World Cup* case ought to also not be used in the case of price personalization as *Post Danmark I* and *MEO* seemed to have laid down when Article 102(c) TFEU ought to be applied.[1072] Even the use of Article 102(a) TFEU to prohibit price personalization was rejected in the Chapter as that would also lead to an inefficient outcome with overall higher uniform prices. Instead, the use of other legislation was recommended only in situations where there is no increase in overall output.[1073]

The idea that consumers with higher WTP pay more so that consumers with lower WTP pay less seems to be an ideal setting for a market which led to the conclusion that competition ought not to intervene in a case where there is an increase in total output as a result of price personalization. One hurdle that was noted form the study of normative concepts related to consumer responses was that firms need to maintain consumer trust to be able to sustainably function in a market. A strong disclosure regime regarding where firms clarify to consumers that they may be getting a personalized price may help the market to function better. One of the main aspects that needs to be studied more in the future is to determine whether redistributive effects of price personalization occur or whether the practice is used in a manner

[1071] See Section 1.2.3 of Chapter 1.
[1072] See Chapter 2, Section 2.5.2.
[1073] ibid Section 2.5.5.

that allows firms to sell only to consumers with a higher WTP leading to overall loss of consumer surplus.

The Chapter showed a digital platform market case where the use of Article 102 TFEU ought to be limited based on previous CJEU Decisions as well as based on other normative and economic considerations. The Chapter was a good indicator that Article 102 TFEU needs to be used judiciously as its use in price personalization and end-consumer price discrimination cases seems to be unwarranted.

Building on from Section 1.3.3 of Chapter 1 which discussed the zero-price feature of some online platforms such as search engines and social media platforms, the thesis sought to add to the discussion on zero-price platforms in Chapter 3 by considering the economic use of data. Chapter 3 of the thesis provided further expansion to the Article 102 TFEU jurisprudence by discussing the CJEU's *Facebook* Decision which allowed the use of competition law in situations where there may have been a violation of a data protection provision by mandating coordination between National Competition Authority's and the designated Data Protection Authority.[1074] The Chapter also suggested that the case of *Google Shopping* could be used to also draw out an exploitative harm to consumers as they are provided unauthentic search results in return for search carried out on Google's platform. Post-2020 cases such as *Slovak Telekom*¸ *Lithuanian Railways,* and *Google Shopping* were used to argue that EU Courts have tended to find novel theories of harm when Article 102 TFEU cases concerning firms holding essential infrastructures are concerned.[1075] The Chapter went on to argue that Article 102 TFEU has an important role to play along with the GDPR and consumer protection legislation in cases concerning consumer exploitation by dominant online platforms through their data collection practices. By doing that, the Chapter showed that some types of conduct would benefit from the joint use of EU legislation while in others such as price personalization which was discussed in Chapter 2, joint use of legislation may not be beneficial for consumers.

Chapter 3 engaged on the use of unfair pricing to cases concerning excessive data collection but this was rejected as there are issues with measuring different forms of data into measurable units currently in addition to the inherent issues that exist with past unfair pricing case law under Article 102(a) TFEU which are not very clear on concepts such as the economic value of the product.[1076] However, when it came to considering unfair trading conditions under

[1074] See Chapter 3, Section 3.3.
[1075] ibid Section 3.3.3.
[1076] See *Scandlines/Port of Helsingborg* cases.

Article 102(a) TFEU, the Chapter argued that this ought to be applicable through joint usage of competition law, data protection and consumer protection legislation in light of the CJEU's *Facebook* Decision as well as the fact that there are common ties between these legislation. The harmonious interpretation of EU rules also allows this usage. It would also be important to use Article 102(a) TFEU in situations where super-dominant online platform firms are able to use their superior bargaining power over consumers to demand consumers into providing their data.

An important theme that was considered in Chapters 2 and 3 was the role of the GDPR and Consumer Protection Directives. Their goals which relate to making conditions better for consumers closely relate to one of competition law's goals of consumer welfare which is achieved by an increase to consumer surplus. The use of the GDPR with Article 102 TFEU in data collection cases in Chapter 3 was a key recommendation based on recent case law (CJEU's *Facebook* judgment) and other important commentaries. The role of Consumer Protection Directives such as the UCPD, Anti-Discrimination, and the Omnibus Directive played a more important role in the case of price personalization in Chapter 2. The Omnibus Directive created a separate provision related to automated use of data and seeks to make sure that consumer consent is taken before personalization of prices.

Then the thesis proceeded to consider prices charged by super-dominant online platforms which may be low to zero as they are subsidized using fund or losses on other sides, also known as cross-subsidization. Chapter 4 highlighted that the characteristic of two-sidedness that is present in digital platforms which facilitates cross-subsidization to occur more easily than in traditional brick and mortar industries. In addition to that, the Chapter noted that digital platforms have very low to no additional or marginal cost to add new consumers to their platform in the case of certain platforms.

This motivated the question whether the use of the *Akzo* presumption of abuse rule is fit for purpose in Article 102(a) TFEU cases when super-dominant digital platforms with low marginal cost are concerned. The Chapter argues that this presumption rule is inadequate and that all prices below average total cost ought to be considered predatory when such cases are concerned as that reflects the total cost of the platform including the fixed and variable costs (proxy for marginal cost).

In Chapter 4 of the thesis, the use of Article 102 TFEU in predatory pricing cases concerning digital platforms led to the suggestion of creation of a modified test for digital platform firms

with a super-dominant position. Due to the close link of the DMA with the conduct of digital platform firms, the chapter also suggested inclusion of a similar test to firms under Article 3 DMA. Based on the characteristics of two-sided digital platforms that engage in cross-subsidization of resources, it was noted in Chapter 4 that the finding of predatory pricing would be made harder if the low marginal costs of these firms were not considered in an assessment test.

This led to the suggestion that the *AKZO* presumption test for predatory pricing (P<AVC, is presumed to be predatory) needs to be amended to a P<ATC, presumption of predation rule for super-dominant platform firms in order to better reflect the low MC and ability to cross-subsidize costs more effectively.[1077] This Chapter provided insights into how the effectiveness Article 102 TFEU could be improved when practices that have been considered since the 1970s in the EU are considered in light of digital platforms. The Chapter throws light on how Article 102 TFEU needs to play an important role in checking whether prices that may not be evidently predatory by considering old presumption rules may need to be revamped.

While the assessment of harm is important as the initial stage of a competition law assessment, the process of rectifying the harm caused by an Article 102 TFEU infringement is also an important function that the Commission and NCAs need to carry out. Chapter 5 of the thesis brought to light the remedy design process mainly for types of conduct that were discussed between Chapters 2 to 4 but extends the discussion to tying and data portability as well which play a key role towards informing the remedy design process for digital platform markets. This involved considering Reg. 1/2003 to understand the types of responses available such as behavioural and structural remedies, commitments, and interim measures. The use of Regulation to assist Competition Law in the remedy design process was also found to be important in order for effective solutions.

The final part of the Chapter provided analyses on whether imposing a certain remedy would be beneficial or not by considering seven types of conduct separately. Section 5.4 of the thesis provides a significant contribution to the field of remedies in Article 102 TFEU cases but also considers the use of other legislation and regulatory institutions in the remedy design and implementation process. The chapter brings together the views developed throughout the initial 4 Chapters and assesses the benefits and costs of imposing remedies or fining firms in Section 5.4. The conclusion was that a certain remedy was envisaged for each of the seven conducts

[1077] See Chapter 4, Section 4.4.

except price personalization where the best response from a competition law point of view is no response at all.

One other common theme within Article 102 TFEU found in Chapters 2 to 4 is the usage of Article 102(a) TFEU which prohibits unfair prices and unfair trading conditions. Chapter 2 questioned whether this may be used in the case of price differences found between consumers due to personalization. This was answered in the negative as the Chapter argued that the increase output as a result of the practice would lead to an efficient outcome and if there are concerns on the grounds of personalization, those could be dealt with by using specific EU legislation such as the Anti-Discrimination Directive.

Even though the focus of this thesis has been on Article 102 TFEU, the principles that have been discussed may apply to competition law jurisdictions throughout the world.[1078] The contribution relating to the assessment of predatory pricing may especially play a role in developing jurisdictions as they find it hard to balance the benefits of digital platforms with the costs they impose on their societies in terms of no choice. The thesis also analysed the close working of competition law with other areas that have similar goals in the EU mainly in Chapter 2, 3 and 5. The role of the DMA is only going to increase after the submission of the thesis and some of the analyses of how the DMA can be used effectively made in this thesis may be of academic value going forward.

The thesis concludes by stating that among all the types of conduct that have been identified and discussed in the substantive chapters, price personalization is one that may require no competition law intervention unless it is clear that no increase in total welfare occurs. The contribution of the thesis is important to the field of pricing abuses under the scope of Article 102 TFEU. Finally, this thesis has provided an evaluative contribution to the field of competition law, to the DMA, GDPR, UCPD, and CRD by providing suggestions based on past cases, academic commentaries and economic evidence. However, the limitation of the thesis is in practically assessing whether these suggestions would be effective such as the modification of the *Akzo* presumption in Chapter 4 which might be possible through behavioural studies. Therefore, the author of this thesis concludes by stating that the role of competition law in digital market pricing abuses is a vital one which needs to be provided more focus in order for effective assessment and remedies.

[1078] See Bradford et al. (n 8).

The next step for further research on this area is to see how the DMA is used by the Commission to regulate the actions of gatekeepers that will be designated under Article 3 DMA. The role of Article 102 TFEU in subsequent digital market cases concerning gatekeepers after the designation process will be an interesting area of study as there may come a time when Article 102 TFEU may not have a role to play at all in such cases. It is also important to see to what extent consumer data can be quantified in terms of units of price as the future seems to be one where different types of data can be quantified and sold to online firms in return for accessing their service. This would involve the DMA primarily but also Article 102 TFEU for non-gatekeepers.

One of the important aspects to consider in the future is the practical application of the suggested test in Section 4.4 of Chapter 4 to online platform cases as a predatory pricing case concerning online platforms has never been successfully proven before. The ability of online firms to personalize prices to the extent that they are able to only sell to consumers with a higher WTP can also be studied further to ascertain whether such conduct has overall negative effects. Lastly, the remedies discussed in Section 5.4 of Chapter 5 need to be considered in practice to assess whether they are effective. Some of them as discussed have not had practical success such as the one concerning self-preferencing. Others have not been tested but Section 5.4 provided a detailed analysis of what could be the potential gains or losses which allow their future application.

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