Institut Barcelona d'Estudis Internacionals 2022-2023





Co-funded by the Erasmus+ Programme of the European Union



The Path to the Digital Markets Act

An Analytical Narrative on a Transatlantic Perspective

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Barcelona, July 2023

Abstract

With the adoption of the Digital Markets Act (DMA) in 2022, the EU has positioned itself as the first-mover setting comprehensive rules in competition policy for digital markets. The fact that the EU acted resolutely far ahead of the US raises the question of why the EU acted in this way at that specific time. The position of the US moves from rejecting and deeming the EU's approach to be protectionist prior to the adoption of the DMA towards a more open and cooperative stance after its adoption. Utilising the method of Analytic Narratives, this dissertation tells the development of competition policy in digital markets in the EU and the US. It uses different models to analyse the dynamics in the two jurisdictions in different periods. Comparative cost-benefit analyses reflect on the change in preferences over the four periods. A sequential game and a two-level game support modelling the reasoning of the EU and the US. The analysis identifies the change in the perception of the Big Tech companies related to the EU's policy objective of digital sovereignty, the regulatory inaction of the US and the CU.

Table of Contents

Abbreviations3
Figures3
Tables
Introduction4
Observation 1: The EU's resolute action as a first-mover
Observation 2: The US's regulatory hesitancy to reform antitrust in digital
markets 6
Observation 3: Recent openness for cooperation: US engaging in dialogue 6
1) Methods7
a) Analytic Narratives7
b) Periodization7
c) Preferences
d) Models: Rational Choice and Game theoretic models
e) Interviews: Checking Models by Interviews
2) Modelling the Politics behind Competition Policy in digital Markets
a) Period 1: Microsoft cases - Snowden (2000s-2013)11
b) Period 2: Snowden - GDPR (2013-2016)14
c) Period 3: Adoption of the DMA (2016-2022)18
d) Period 4: Domestic divide in the US and international Cooperation (after
2022)
3) Discussion: What paved the Way for the DMA?
Conclusion
References
Appendix41
A. Digital Markets Act41
B. Interviews43
C. Thesis Report44
Signature page45

Abbreviations

DMA	Digital Markets Act
DSA	Digital Services Act
FTC	Federal Trade Commission
GDPR	General Data Protection Regulation
G7	Group of Seven (intergovernmental organization)
GWB	Gesetz gegen Wettbewerbsbeschränkungen (German competition law)
GAFAM	Acronym for Google, Apple, Facebook, Amazon, Microsoft
DoJ	Department of Justice
TCPD	EU-US Joint Technology Competition Policy Dialogue
TTC	EU-US Transatlantic Trade and Technology Council

Figures

Figure 1: Example Cost-Benefit Analysis	10
Figure 2: Comparative Cost-Benefit Analysis Period 1	13
Figure 3: Comparative Cost-Benefit Analysis Period 2	17
Figure 4: Sequential Game Analysis Period 3	25
Figure 5: Comparative Cost-Benefit Analysis Period 4	32

Tables

Table 1: Periods	7
Table 2: Preference Ranking	26

Introduction

The recognition of distinctive dynamics in digital markets making dominant tech companies more prone to anticompetitive conduct can be traced back to the early 2000s. Yet, serious approaches to reform antitrust and competition law regulations in response to these weak spots only emerged around 2017. The EU's Digital Markets Act (DMA) marks a significant milestone. The path to the DMA has been accompanied by a transatlantic discrepancy in how to address the Big Tech companies' market dominance. This dissertation discusses how the position of the EU and the US developed over the past two decades. It sheds light on the dynamics in the two jurisdictions forming the preferences of the two actors.

The fact that the EU acted resolutely far ahead of the US raises the question of why the EU acted in this way at that specific time. The adoption of the DMA is one out of three observations this dissertation examines. The other two observations cover the way the US positions. Initially, the US acted hesitantly and did not pursue any action of domestic reforms of its antitrust laws. Instead, the US has been sharply criticising the EU's endeavour for being a protectionist project. More recently, the US is pursuing a path looking for cooperation with the EU to coordinate their policies. Forums like the EU-US Joint Technology Competition Policy Dialogue (TCPD) aim to solve potential disputes and find joint agreement. In addition, initiatives within the G7 strengthen multilateral approaches towards international coordination in this new domain of competition policy.

The underlying issues that brought up the debate for reforming competition policy have their roots in network effects and the tendency to be winner-take-all markets. These effects set incentives for anticompetitive conduct like bundling, predatory pricing, preferencing of own products and other anticompetitive actions. Also acquisitions of potential competitors by major tech companies are a factor weakening competition.

The dominance of a few Big Tech companies, also known as GAFAM¹, that benefitted from the dynamics ruling digital markets and relying on anticompetitive practices have led to dozens of antitrust and competition cases in the US and the EU. Long trials, inefficient implementation of remedies, SMEs suffering from anticompetitive practices and researchers pointing at the negative impact of a few tech giants dominating the market set the tone for reforms. With the DMA, the EU positioned itself as the first mover pioneering this domain. The DMA establishes regulations for a variety of gatekeepers, identified through specific criteria. These gatekeepers are required to adhere to regulations that prohibit certain actions. The novelty lies in the fact that these

¹ GAFAM is an acronym used to refer collectively to five of the world's largest and most influential technology companies: Google, Apple, Facebook, Amazon, and Microsoft. The expression Big Tech refers to the same group of companies.

rules are set ex ante, in contrast to the traditional approach of competition law, which typically relies on ex post enforcement. The ex ante approach allows for proactive regulation and intervention before potential anticompetitive behaviour occurs. The fact that the tech companies meeting the designation criteria are almost all American already suggests the potential of the US opposing the endeavour provoking tension in EU-US relations.²

This dissertation utilises the method of Analytic Narratives to trace back the path that led to the adoption of the DMA of the EU and the behaviour of the US. Following the method by Bates et al. (1998), different rational choice theory and game theory models are used to explain the described observations. The analysis identifies the EU's policy objective of digital sovereignty strengthened by the Snowden revelations and the concept of the Brussels Effect to be significant drivers for the actions taken by the EU. Looking at the past two decades in four periods separated by events significantly impacting the conditions the two actors navigate helps to identify changes in preferences. This is supported by models of comparative cost-benefit analyses, sequential game models and a two level-game.

The three observations this dissertation explores are outlined below. The next section is elaborating on the methods used. A section on modelling the politics behind the regulation of competition policy in digital markets goes through the last two decades separated into four periods. It follows a discussion examining trends going through all of the periods that paved the way for the DMA.

Observation 1: The EU's resolute action as a first-mover

Proposed in the end of 2020 by the EU Commission and approved early 2022 by the European Parliament, the European Union acted as a first mover creating a comprehensive legislation in competition law for digital markets. An initiative in Germany amending its national competition law was pursued simultaneously and pushed the EU's endeavour.

Considering the years prior to the proposal of the DMA and the German GWB §19 (a) ³, debates in academia and policy circles did not indicate the pressing relevance of the issue. A comprehensive expert report "*Competition Policy in the digital era*" (Crémer, de Montjoye, and Schweitzer 2019) requested by Commissioner Vestager was published in 2019 few months before the Commission's proposal. More than twenty reports requested by competition authorities around the globe have been published within a short period of time (Lancieri and Sakowski 2021). This indicates a rapid acceleration of the debate within a small amount of time.

² Details on the DMA in Appendix A

³ Amendment to the German competition, discussed more detailed in a later section

The diverging views on how to best address the issue, the variety of member states perspectives and the lobbying efforts of tech companies are conditions that would not have suggested the EU's resolute and quick action. The EU managed to find common agreement within a relatively short period after the issue of digital market dominance became a prominent topic.

Observation 2: The US's regulatory hesitancy to reform antitrust in digital markets

The position of the US prior to the adoption in the DMA of the EU did not signal an openness to cooperate on this issue. Representatives of the US used to deem EU approaches in this issue and in another fields of tech policy to be of a protectionist nature disadvantaging American companies.

By not acting themselves, the US left room for the EU to pioneer the policy design in the field of competition policy in digital markets. Considering the power to set global standards in regulation, the hesitancy of the US raises the question of why the country that brought up the most successful tech companies left the field to the EU.

Observation 3: Recent openness for cooperation: US engaging in dialogue

Contrary to the US's initial hesitancy, more recent developments indicate that the US is showing a high interest to look for international cooperation and higher recognition of the issue in domestic policy debates. In December 2021, the US and the EU launched the Transatlantic Competition Policy Dialogue (TCPD) with the objective to "focus on developing common approaches and strengthening the cooperation on competition policy and enforcement in the technology sector" (European Commission 2021). Also activities and a commitment by the G7 express a strong and unprecedented move towards international cooperation on the issue. In January 2023, President Biden fiercely called "Republicans and Democrats, [to] Unite Against Big Tech Abuses" in a Wall Street Journal Op-Ed (Biden 2023).

The shift from regulatory hesitancy towards involvement in international cooperation and the active promotion of the issue domestically indicate that the US position changed parallel to the adoption of the DMA.

1) Methods

This section is dedicated to introduce the methods used for explaining the three observations highlighted in the introduction. The section describes the components of Analytic Narratives and how preferences are determined. Further, the rationale for the periodization into four periods is explained. Details on certain methods are provided in context of the application in the next section.

a) Analytic Narratives

The method of Analytic Narratives brought up by Bates et al. (1998) aims "to account for outcomes by identifying and exploring the mechanisms that generate them". This is supported by the use of rational choice theory and game theory. The three observations this dissertation focuses on have been described in the introduction. The key components of Analytic Narratives are described to be actors, sequences of actions, decision points and choices that generate the events and outcomes. The actors analysed in this dissertation are the EU and the US.

Bates et al. (1998, 11) emphasize the relevance to "understand the actors' preferences, their perceptions, their evaluation of alternatives, the information they possess, the expectations they form, the strategies they adopt, and the constraints that limit their actions". Following their idea, this dissertation analyses the EU's and the US's preferences in different periods and deviates models reflecting the choice the two actors have at different decision points.

b) Periodization

For understanding the actions of the actors, this dissertation identified four periods that differ in their strategic setting. Certain events mark the end of one period and the beginning of the next period. Periodization is a method used in history to identify periods that are relevant for a particular outcome that is analysed. The separation into periods helps making causal inferences (Lieberman 2001). Viewing explanatory variables based on preferences of the two actors through the lens of different periods enables to observe how they interact and change over time.

	Period 1	Period 2	Period 3	Period 4
Time	2000s-2013	2013-2016	2016-2021	After 2022
Key Event	Cases	Snowden	Adoption of	Adoption of
	against	Revelations	the GDPR	the DMA
	Microsoft			

Table 1: Periods

The overall timeframe this dissertation examines starts in the turn of the century. Competition cases against Microsoft in the US and the EU mark the early beginning of the first period. The event marking the end of the first period are the revelations of global surveillance practices of the NSA (National Security Agency) of the US by Edward Snowden in 2013. This second period ends with the adoption of the General Data Protection Regulation (GDPR) of the EU in 2016. The third and the fourth period are separated by the adoption of the DMA in 2022. Each event has remarkable implications on the strategic setting in which the EU and the US interact. These changes alter the preferences and strategies of the two actors.

c) Preferences

For determining preferences, this dissertation adopts an approach by Jeffry Frieden (1999). Preferences are described to be the most preferred outcome of an actor. It considers *strategies* to be tools for coming as close as possible to the preferred outcome. They are derived from an actor's preferences. S*trategic settings* are the environment in which actors act. They set the constraints actors have to pursue the paths towards their preferred outcome. These can include behaviour of other actors, the institutional framework, power dynamics, economic conditions and the overall political and social context.

Frieden (1999) points out that preferences cannot be observed: "Where actors are strategic, we cannot infer the cause of their behaviour directly from their behaviour". Instead, he recommends the process of deduction to be the best way to determine preferences. This approach derives preferences from pre-existing theories or frameworks. Examining distributional implications and potential gains from particular outcomes helps to deduce preferences. For example, the less profitable and less competitive a company is, the stronger their preference for protectionism.

This dissertation pursues the approach to deduce preferences of the EU and the US decisive for their actions related to the adoption of rules for competition policy in digital markets. Some of these deductions are of general nature that apply during the whole period of time. Others are particularly relevant for understanding the reaction of the actors on changes in the strategic setting.

d) Models: Rational Choice and Game theoretic models

A simplified cost-benefit analysis reflecting the payoff for each of the two actors in relation to the strength of regulation is applied to each of the four periods. The model is following a rational choice approach assuming that the two actors make decisions to maximize their payoff. Two further game theoretic models complement the insights by looking at the strategic interactions of the two actors. A sequential game supports the explanation for observation a) taking a EU-perspective on the adoption of the DMA

anticipating the potential responses of the US. A two-level game focused on the US perspective is shedding light on explanations for observation b) and c).

e) Interviews: Checking Models by Interviews

For building a bridge between theoretic models and the perception of decision makers involved in the processes, the author of this dissertation interviewed two parliamentarians.⁴

⁴ More information on interviews in Appendix B

2) Modelling the Politics behind Competition Policy in digital Markets

This section seeks to examine the impact of changes in the preferences of the US and the EU for stronger regulations over four periods. The preferences are viewed as the appetite for stronger and new regulations in competition policy for digital markets. A model in form of a comparative cost-benefit analysis reflecting on how beneficial these regulations are for the two actors and how this is changing under consideration of specific events.

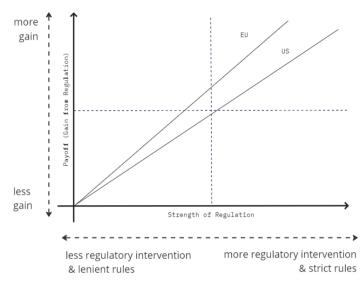


Figure 1: Example Cost-Benefit Analysis

The cost-benefit analysis is applied to each of the periods elaborated in the methods section. The analytical part examines the changes in I the preferences for strong regulations. The graphs illustrate the considerations of potential payoffs from stronger regulation for the two examined actors. The X-Axis demonstrates the strength of competition law regulations. ⁵ The Y-Axis represents the corresponding payoff. The steeper the slope of one curve, the more beneficial strong regulations are for an actor. The graphs are simplified and cannot serve as a comprehensively analytical tool. They serve the purpose to point out the impact of particular events and factors changing the payoff for at least one of the actors. The payoff includes considerations of costs, risks, returns and other consequences of regulation. The regulation does not have to be a concrete legislation that is actually debated, it can also be a hypothetical desired regulation to be proposed in the future.

⁵ The terms "competition policy" and "antitrust" are used interchangeably to refer to the regulatory framework and legal principles governing competition and anticompetitive practices in the EU and the US.

Following Frieden (1999), this dissertation aims going beyond the mere assumption of preferences. Where possible, preferences are deduced. The process does not rely on unreliable observations or uncertain assumptions. It is based on theories that depend on conditions, they are considered to be more objective. The theory for the deduction are presented in boxes. There is a set of preferences that is assumed to be constant over all periods. With each change from period to period, the strategic setting is changing.

In each subsection, one period is examined for how preferences change. Every subsection starts with telling a narrative that is coining the respective period. Some subsections are elaborating on concepts that are part of the narrative. For each period, developments of the narrative are analysed in the comparative cost-benefit model. For the third and fourth period, further game theoretic models are taken into consideration. The third and fourth period are also modelled as a two-level game.

a) Period 1: Microsoft cases - Snowden (2000s-2013)

The first period examined is coined by the emergence of digital markets and first observable legal actions against tech companies, primarily Microsoft. This subsection highlights that there has been early awareness in academia that digital markets are ruled by dynamics differing from more traditional markets. Despite long-lasting cases involving anticompetitive conduct characteristic for digital markets, there is lack of a debate on potential reforms of antitrust and competition policy. Overall, the tech industry in general and the GAFAM companies are enjoying a positive public perception. Strong preferences of the two regulators are not yet getting very apparent in this first period. The situation at the end of the period is the initial situation for the second period decisive for examining changes in the actors' preferences.

Microsoft in the sights of antitrust authorities

Microsoft is the company that faced the biggest antitrust and competition cases in the US and the EU. It was accused to have used its dominant position offering operating systems for personal computers. The most relevant cases were filed in 1998 in the United States and in 2004 in the European Union. The scope and focus of the two cases might be different. Relevant for tracing back the recent debate around competition policy in digital markets is the that the kind of anticompetitive conduct addressed in these cases is similar to the one back then. The anticompetitive conduct of bundling, exclusive contracts, predatory pricing and issues related to interoperability are a behaviour recurring in present debate.

The Microsoft cases demonstrated inefficiencies in the enforcement of competition policy. The case in the US lasted six years, the case in the EU almost ten years. Even though the EU Commission found Microsoft to be guilty in 2004, imposed remedies have not been implemented. Non-compliance caused a fine of almost 2 billion euros ten years later. Similar patterns of non-compliance with imposed remedies, trials

lasting many years and paying fines as if they are usual costs for doing business can also be found in other cases such as the EU Google Shopping case.

Early Research: Recognizing Dynamics Exclusive to Digital Markets

The dynamics that technology markets differ from traditional markets for goods and services already have been recognized long before the Microsoft cases in the 2000s. Already back in 1974, Jeffrey Rohlfs concluded that network effects are indispensable for understanding how certain markets work. Back then, Rohlfs (1974) based on his experience analysing telecommunication services argued that the demand for a product or service depends on the number of other users of a network, creating positive feedback loops that can lead to winner-takes-all outcomes. These insights and arguments also have been used by US authorities examining the Microsoft cases (Schmalensee 2011). Until today, Rohlfs idea of network effects serves to analyse digital business models such as social media networks like Facebook (ibid.). There has been awareness for the fact that these network effects lead to monopolization and set incentives for anticompetitive conduct even before the Microsoft cases.

Literature in the 2000s referred to Rohlfs insights of network effects with a better idea of how early digital markets looked like. Shapiro et al. (1999) as well as Rochet and Tirole (2003) offer a theoretical foundation how network effects impact digital markets and the behaviour of tech companies. A more comprehensive debate about the need to reform antitrust incorporating these insights about network effects did not come up. The renowned economist an judge Richard A. Posner (2000) did recognize that "Antitrust in the New Economy" is an issue to be discussed. However, he rejected the need to adjust antitrust rules and argues that existing laws are "supple enough [...] to take in stride the competitive issues presented by the new economy" (Posner 2000). Instead of reforms of the law, he rather points on institutional enforcement capabilities to be strengthened (ibid.).

Despite cases against Microsoft and existing awareness in academia about network effects promoting trends towards monopolization and setting incentives for anticompetitive conduct, there has been no significant debate about reforms of competition law.

The first period examined in this subsection is showing mixed and ambiguous signals about regulatory appetite to tighten the screw for competition policy in digital markets. On the one hand, research acknowledging peculiarities of digital markets and cases against Microsoft express an awareness of issues arising around network effects and the incentives for companies like Microsoft to get involved in anticompetitive conduct. On the other side, articles published in academia do not formulate a clear demand to adjust competition law accounting for the dynamics of digital markets. A debate about strengthening regulations remains absent.

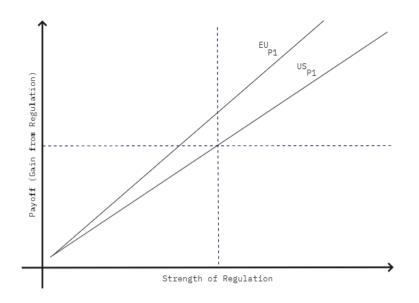


Figure 2: Comparative Cost-Benefit Analysis Period 1

The absence of a serious debate on reforms in competition policy accounting for the acknowledged dynamics that rule these markets and set incentives for anticompetitive action demonstrate a lack of strong preferences for strengthening regulations for both actors.

The economic relevance of tech companies is far from its nowadays size. The US's interest to protect its own champions is not yet there. The perception of these companies in the EU is positive – they bring benefits and deliver innovative products. Pressure to regulate is low for both actors.

Deducing Preferences from legal Tradition

• The more room that can be granted for consumer welfare maximization through "law and economics" under the rule of reason, the better it enables a balanced approach (US)

However, the EU's preference for stronger regulation can be deduced to be stronger a priori. Regulators in the EU are said to "typically take a more aggressive stance than the U.S. regulators reviewing the very same conduct under their respective competition laws" (Bradford et al. 2019, 732).

For example, the handling of the Microsoft cases was more stringent in the EU. In the US, Microsoft escaped antitrust trials without fines. Meanwhile they received several fines in the EU totalling up to more than 2 billion euros.

While the EU is said to follow a more aggressive enforcement of competition law having lower barriers for concluding that a company has a dominant position or imposing

higher fines, the US is more hesitant and generally less likely to assess anticompetitive behaviour (Bradford et al. 2019). This can be reflected in differentiating risk assessment. The US rather fears false positives, the EU is more afraid of false negatives (ibid.).

Following its traditionally established practices in antitrust of the consumer welfare standard and the approach of law and economics, new and more strict regulations do not seem to be a preferred outcome for the US.

Thus, it is concluded that the appetite for regulation in the EU in the first period is slightly higher than the in the US. The graphs representing these preferences serve as the initial situation for analysing shifts in the second period discussed in the next subsection.

b) Period 2: Snowden - GDPR (2013-2016)

The second period is coined by the scandal shedding negative light on the Big Tech companies and an increasing desire within the European Union to achieve *digital sovereignty*. More insights about the negative impact of dominating tech companies is contributing to an overall climate seeing Big Tech more sceptical.

The start of the examined period is traced back to disclosure of global surveillance practices known as the Snowden revelations or the NSA files in 2013. The period ends with the adoption of the General Data Protection Regulation (GDPR) in 2016. This subsection argues that the revelations of surveillances practices originating from the US significantly contributed to the rise of the EU's policy objective of digital sovereignty. Thus, all domains of digital policy – including competition policy in digital markets – experience a sustaining shift in preferences. This is accompanied by a significant change in the strategic setting increasing scepticism against Big Tech companies.

Power of Big Tech challenging the Governance of the digital Sphere

The term of digital sovereignty revolves around matters of authority and independence in the digital sphere. The not clearly defined notion of digital sovereignty can be best understood by looking at the development of governance in the digital sphere. It gives insights on a shift in the challenges for authority in the digital sphere. Sovereignty traditional has been challenged by two concepts, cyber exceptionalism and multistakeholder internet governance (Pohle and Thiel 2020). The two opposing concepts disagree on how the digital sphere should be governed. While cyber exceptionalists reject any form of rule, norms and laws originating from states in the cyber space because of its distinct characteristics, proponents of multi-stakeholder governance want to involve various stakeholders, including national governments, international organizations, the business sector, civil society as well as the academic and technical communities (Kurbalija 2016). The more recent challenge for sovereignty in the digital sphere is the power corporate actors accumulated. Benefiting from network effects, Big Tech companies commercialized the most frequently used services in the internet (Pohle and Thiel 2020; Christl 2017).

As two interviewees described, indications for systematic anticompetitive conduct increased in the early 2010s. The most apparent conduct was mentioned to be Google as dominant search engine with the power to control traffic disadvantaging potential competitors.

For the EU this dominance of Big Tech players is a concerning threat. One reason is the absence of any major tech player in Europe. Acknowledging the relevance of digital technology, the EU Commission declared the strategic goal 2020 to 2030 to be a "Digital Decade" (European Commission 2020). The goal of digital sovereignty related to this strategy is often referred to by representatives of all EU institutions. The term "digital sovereignty" lacks a precise definition, but according to the European Parliamentary Research Service (2020), it is often described as "Europe's ability to act independently in the digital world," which aligns with how most policymakers interpret the concept.

Snowden Revelations rising Sensitivity

In June 2013, the former contractor of the NSA (National Security Agency) Edward Snowden leaked classified documents on US surveillance practices. The documents revealed extensive suspicious less surveillance by the US on countries such as Germany. It sparked a controversy on the impact of actions claiming to protect security interest on privacy rights. Particularly in the EU, public debate has been concerned about the treatment of European citizens' data by US tech companies and their relation to national security authorities.

Concerns have been amplified by the Cambridge Analytica scandal involving the misuse of private data on Facebook in the Trump and Brexit campaign.

The scandals contributed to a decline in the public perception of Big Tech companies. One interviewee remembered that at that time, policymakers in changed from a mood of admiring the US tech sector to increasing scepticism of the power the companies accumulated. The interviewee pointed out that his was expressed by parliamentary and increased the scrutiny.

Literature has identified the Snowden revelations to have contributed to the rising popularity of digital sovereignty (Velliet 2023, 7; Pohle and Thiel 2020, 7).

The Snowden revelations and the Cambridge Analytica Scandal reflect a threat to digital sovereignty perceived by the European Union from multiples sides. On one hand, state actors, exemplified by the US using technology for surveillance on allies in the name of national security, challenge digital sovereignty. On the other hand, non-state actors, particularly Big Tech companies like Facebook, who prioritize business

expansion over privacy standards and may involve themselves in questionable interference in democratic elections, also pose challenges to digital sovereignty. The two threats also come together as a combined force, US Big Tech companies are described to "have become tools of statecraft, acting as conduits through which the US state can exercise power" (Cartwright 2020).

GDPR: The EU's Reaction and the transatlantic Divide

The adoption of the GDPR in 2016 reflects the first significant legislative action of the EU to pursue its objective of digital sovereignty. The scope of the data protection law is comprehensive, it defines data broadly and requires organisation in and without the EU processing EU resident data to comply with the law. Non-compliance is penalized with high fines proportional to global revenues. Strict consent requirements, "the right to be forgotten", accountability measures and cross-border data transfer rules are key parts of the law. The extraterritorial scope of the GDPR putting regulatory burdens on foreign companies can be interpreted as the EU's expression to promote global standards and export values around individual data privacy rights constraining the power of Big Tech players.

Rhetorically, the conflict arising from issues triggered by the Snowden revelations and the EU's reactions can be observed in multiple comments by officials from the EU and the US (Velliet 2023): Arnaud Montebourg, former French Minister of the Economy, in 2014 raised the concern that Europe and France are at risk "becoming digital colonies of the United States" (Alerte 2014). Commenting investigations by the EU Commission against Facebook, former US President Barack Obama, described the EU's behaviour to be "sometimes a mask for European protectionism" that "is just designed to carve out some of their commercial interests" because European IT firms "can't compete with ours" (Ahmed 2015).

The adoption of the GDPR also marks the end of the period examined in this subsection. The major shift of this period is the perception of Big Tech companies to be more negative and the emerging desire of the EU to defend and achieve digital sovereignty.

Comparative Cost-Benefit Analysis of Period 2

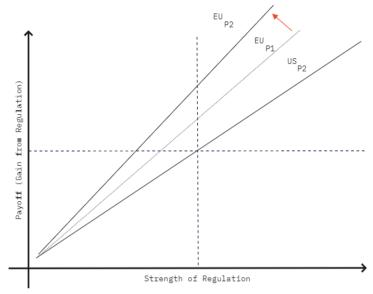


Figure 3: Comparative Cost-Benefit Analysis Period 2

Compared to the end of the first period, the strategic setting changed in the course of the period. The Snowden revelations significantly contributed to a shift in the political and public perception of Big Tech companies and their treatment of data privacy. The adoption of the GDPR is a first sign that policy makers do have more appetite for regulation in other domains of tech policy. Further, more fierce rhetoric between the US and the EU are a strong indication for diverging views on how to deal with the Big Tech companies.

Deducing	Preferences	from	Pubic	Percep	tion

- The more critical the public perception of a certain industry, the more likely this industry is to be regulated (EU)
- The more positive the public perception of a certain industry, the less likely regulation (US)

As the cost-benefit analysis demonstrates, deduced preferences indicate a shift for the EU benefiting from stronger regulation. This deduction is based on a theoretic approach focused on the public perception of an industry. The public perception includes how citizens view the industry, the way media report on it and the rhetoric policy makers frame companies in the industry.

Discussing threat scenarios of nazism and communism, Bates et al. (1998, 5) emphasize the "impact of international events on domestic politics" for their analyses. The change of the perception of Big Tech companies triggered by the Snowden

revelations is this kind of international event that is posing a threat to the domestic level. An event that started some form of domino effect with first stone falling represented by the adoption of the GDPR.

One might argue that the GDPR is addressing the perceived threat for data privacy and reject that it interferes with competition policy in digital markets. This line of argument would assume the GDPR to be a fix for issues of data privacy and that the critical perception of the US tech industry in Europe is only related to data privacy. Arguing in that way would neglect the fact that the pure size of tech companies such as Facebook and Google allowed the access to the extraordinary amount of user data. In the massive size positioning them in a widely unchallenged dominant position in the markets lies the core of the perceived threat. While the GDPR is setting rules with regards to privacy protection, anticompetitive conduct related to data cannot be addressed by data privacy laws.

The effect of the Snowden revelations in the cost-benefit analysis is displayed to be asymmetric. While the desire for stronger regulation in the EU is growing, the position of the US remains unchanged. This is because the US-American narrative justifying practices revealed in the NSA files as means for defending national security is working much better on a domestic level. At the same time, tech companies have reached an economically significant relevance for the US economy. The tech industry established itself to be the fastest growing sector of the economy. Thus, potential regulation of a successful and expanding sector domestically in US is perceived as a bigger threat than the potential evil the tech companies are criticised for in Europe.

For this period, there is not yet a more precise regulation depicted. Thus, in the absence of potential outcomes, no clear strategy can be drawn for the two actors. However, the increasing pressure for the EU suggests that more concrete scenarios develop soon.

c) Period 3: Adoption of the DMA (2016-2022)

The third period is marked by the proposal and the adoption of the Digital Markets Act (DMA). The start of the period is the adoption of the GDPR, the end the adoption of the DMA.

The subsection argues that the concept of the Brussels Effect amplified by the reaction on the GDPR bolstered the EU in its regulatory ambitions to set global standards for competition policy in digital markets. Further pressure to act for the EU originated from Berlin where German lawmakers put forward an amendment in its national competition law with a focus on gatekeepers similar to the DMA. The national legislation put pressure on policy makers in Brussels to agree on a powerful EU legislation for maintaining a harmonized single market. As the EU moves forward with the development of a significant regulation for competition policy in digital markets, the situation in the US appears ambiguous. There is growing scepticism in academia towards Big Tech companies similar to the EU, policy makers raise concerns, conduct congressional hearings of tech CEOs but do not show willing to discuss reforms of antitrust or lack the political majorities.

The Brussels Effect

Already before the adoption of the GDPR, Anu Bradford (2012) published an article describing the concept of the Brussels Effect as "Europe's unilateral power to regulate global markets". She points out that dynamics similar to the "California Effect" put the EU's regulation into a position to serve as a blue print for other jurisdictions. Bradford (2012) points out three conditions for the dynamics leading to the unilateral power exemplified in the California Effect and the Brussels Effect: 1) the size of the market (population), 2) the importance of the market (wealthy consumers) and 3) the regulatory capacity (institutions and knowhow). All three conditions are met by the jurisdiction of the Brussels Effect are presumed to lead to upward convergence, implying a race to the top towards the jurisdictions with the most strict regulations instead of a race to the bottom with looser regulations.

Eight years later, Bradford (2020a) expands on the concept of the Brussels Effect in a more comprehensive book. The origins of the Brussels Effect are traced back to the integration of the common market. The risks of fragmentation arising from more stringent regulations in single member states is usually followed by upward harmonization measures. This tendency is also caused by low legislative barriers that to do not require unanimity in the Council. The primary driving force behind the harmonization of regulations is attributed to internal motivations to foster the single market. The external power behind the Brussels Effect is described as an "incidental by-product of its internal motivations" (Bradford 2020a, 18).

EU policymakers have not given significant attention to the external dimension of the EU's regulatory power for a long time. Bradford (2020) identified that the EU first mentioned this ability in 2009. The active use of this power to promote EU's principles and values has emerged as a more recent trend.

GDPR: Grasping the own regulatory Power

The power of the Brussels Effect has been proven by the GDPR. Bradford as the scholar who discovered the concept considers the GDPR to be one of the "most powerful examples of the Brussels Effect" (Bradford 2020a, 140). The dynamics leading to the adoption of EU regulation outside of its own jurisdiction work in two ways. Bradford differs between the de facto and the de jure Brussels Effect. The de facto effect is the unintended and indirect impact of the EU's regulation on non-EU countries by companies complying with EU regulation beyond the EU's jurisdictions due to

economies of scale that make it economically cheaper to have uniform standards across jurisdictions. On the other hand, the de jure effect is arises from the adoption of EU regulations in other jurisdictions. This can be part of bilateral and multilateral agreements. It also can be triggered by corporate advocacy when companies that actively lobby in other countries to adopt the EU standard for having harmonized standards that decrease costs of compliance.

In case of the GDPR, the global adoption of EU data privacy rights as a general principle for dealing with all user data by Apple exemplifies the de facto effect (Bradford 2020a, 143). Similar reactions have been observed for Facebook, Google and Airbnb (ibid.). The de jure effect of the GDPR symbolizes the EU's influence on other countries. Almost 120 countries have adopted data protection laws with the majority following the EU's approach (Bradford 2020a, 148). Larger countries such as Brazil, Japan, South Africa and South Korea followed the EU's "gold standard" for data privacy. In the US, even Apple CEO Tim Cook and surprisingly also Facebook CEO Marc Zuckerberg actively promote and support the adoption of federal privacy laws built on the GDPR.

New Brandeis Movement: Rising Scepticism in the US

In the US, Big Tech companies are traditionally seen a beacon for economic growth and innovation. Generally, the success of the industry is often seen as a success and a competitive advantage bringing benefits for the US. It took a then 27-years old Columbia law student to expose the pitfalls of concentration of power. In 2017, today's FTC-Chair Lina Khan revealed the anticompetitive business practices of Amazon. In her seminal work on "Amazon's antitrust paradox", Khan (2016) highlights the negative consequences of Amazon's market dominance. She particularly criticises Amazon's role as platform provider of marketplace combined with the role as a seller on the marketplace it provides. Pointing at information Amazon retrieves from running the platform, she argues that the practices prevent competition by disadvantaging thirdparty sellers and stifle innovation. She concludes calling for rethinking the consumer welfare standard and overthinking antitrust enforcement.

Another prominent proponent raising concerns similar to Lina Khan is the scholar and temporary advisor to President Biden Tim Wu.⁶ In his book "The Curse of Bigness: Antitrust in the New Gilded Age" Wu (2018) argues in line with Khan for the reexamination of antitrust principles to adapt to the challenges of the digital age and the rise of dominant tech platform. He argues that the concentration of economic power of dominant tech platforms does not only threaten competition but also democratic processes due to an accumulation of power. In his view, the tech companies' control

⁶ Wu hold the position as Special Assistant to the President for Technology and Competition Policy from 2021 to 2023. As an academic and practitioner in tech policy he is known for coining the term "network neutrality" he worked on in the beginning of the 2000s.

over the flow of information and potential manipulation could cause this harm to democracy. Wu does consider breakups as potential measures for restoring competition and preventing harm by market concentration among a few number of Big Tech companies.

Khan and Wu are said to represent a the movement of New Brandeis movement. Following the intellectual roots of former Supreme Court Justice Lous Brandeis, the movement opposes thought represented by the Chicago School. New Brandeisians oppose the consumer welfare standard and are rather concerned about structure than economic efficiency (Khan 2018). Also Senators such as Elizabeth Warren are said to be New Brandeisians with comprehensive approaches to reform antitrust laws (Waller and Morse 2020).

During most of the time of the examined period, Donald Trump was the President of the US. In an interview asked about fines the EU imposed on US tech companies, Trump is mixing up competition policy with tax policies and blames the EU to act like this because it is "easy money" (CNBC 2019). However, he does acknowledge that "there is something going on in terms of monopoly" and states that the US should be in charge for dealing with potential misbehaviour of American tech companies (Kelly 2019). There is a lack of clarity in his position on antitrust laws and the impact of Big Tech companies on competition. Further, his presidency is coined by political polarization and transatlantic tensions.

The Digital Markets Act

Within Europe, it did not need a particular intellectual movement comparable to the American New Brandeisians pushing the agenda. A combination of different forces has driven the Commission to propose the DMA in 2021.

In November of 2014, the European Parliament agreed on a resolution highlighting the significance of "unfettered competition and a level playing field" in the digital economy (European Parliament 2014). It calls on the Commission to enforce EU competition rules rigorously "to prevent excessive market concentration and abuse of dominant position" (ibid.). As an interviewee indicated, this resolution contributed to the process that led to the DMA.

After 2015, a range of reports by experts commissioned by different competition authorities is paying attention to the topic. Lancieri and Sakowski (2021) reviewed 22 of these reports. Among the earliest reports is a joint study by the French Autorite de la Concurrence ("AdC") and the German Bundeskartellamt published in 2016. A report commissioned by Commissioner Vesatger was published in 2019 (Crémer, de Montjoye, and Schweitzer 2019). Also in other jurisdictions, similar reports such as the "Furman Report" in the UK or the "Stigler Report" in the US have received attention and contributed to raising salience of the issue.

The DMA was proposed by the EU Commission in December of 2020. The legislative process lasted around 1.5 years till the EU parliament approved the bill.⁷ The process has been accompanied by scepticism expressed by the US. Deeming the legislative endeavour as a protectionist tech policy (Espinoza and Politi 2021).

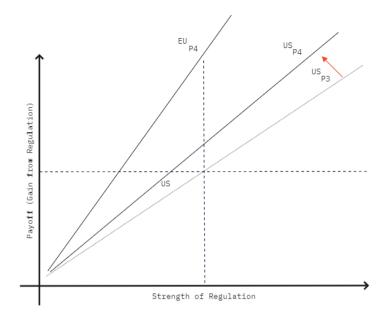
Berlin pushing Brussels: German §19 a)

The earliest documentation of the intention to pursue reforms can be found in the coalition agreement of the CDU-SPD coalition agreement (CDU, CSU, and SPD 2018) committing to modernise German competition law to take account of the development of the platform economy. Even before the proposal of the DMA by the EU Commission, Germany started working on a reform if its competition law GWB (Gesetz gegen Wettbewerbsbeschränkungen). The first draft circulated late 2019, the cabinet proposed it end of 2020 and the parliament approved it in January of 2021. Due to the high relevance of the common market, the German reform endeavour pushed the EU Commission to work on the DMA for having harmonized regulations and avoid potential fragmentation. One interviewee emphasized the intention of German parliamentarian to leverage the desire towards harmonization by enacting the amendments for pushing to a direction of strict rules and emphasize the time to move forward quickly. According to reports by Politico, even the US expressed their preference to have the Commission as the "sole enforcer of the new measures" to have "effective harmonization between EU and national rules" (Stolton 2022).

In the third period, the effect of the GDPR discussed in the previous period has underscored the regulatory power of the EU known as the Brussels Effect. In the US, the New Brandessian movement raised awareness for the issue but political support is limited. Expert reports commissioned by competition authorities and the German amendment to national competition law gave weight to the matter to reform competition policy for digital markets paving the path to the DMA.

⁷ Details on the DMA in Appendix A

Comparative Cost-Benefit Analysis Period 3



In the third period, for the second time, the payoff for the EU from stronger regulation increased. The insights from the reaction of the rest of the on the GDPR reemphasized the EU's regulatory power. Despite the upcoming New Brandeis movement in the US, political majorities for comprehensive reforms in antitrust policies are out of reach in a time of polarization during the Trump era.

|--|

• The higher the chance that others adopt the jurisdiction's regulation, the higher the incentives to regulate (EU)

With higher chances of other jurisdictions following the own regulatory approach, there is more certainty about the external regulatory power of the EU. At the same time, the risks and potential costs for the EU are small. In the absence of major tech companies that qualify as a gatekeeper based in the EU, the potential negative effect on these players is not a concern.

Bradford et al. (2019, 735) argues that the EU has been actively "pushing" other jurisdictions to replicate EU competition law by "conscious efforts to expand its regulations through a myriad of economic and political agreements". Trade agreements are mentioned as a mechanism the EU uses to require trade partners to adopt its competition law. There are economic interests to promote its own rules abroad for economic reasons as the same regulatory framework lowers the costs for entering foreign markets (ibid.).

Analysing the global diffusion of EU competition law and American antitrust, Bradford et al. (2019) conclude that jurisdictions around the globe are more likely to replicate the EU competition laws than US antitrust law. EU law is more precise, available in

multiple languages such as French, Spanish and Portuguese, relies less on courts and allows multiple goals going beyond the consumer welfare standard promoted by US antitrust law. They conclude that the EU competition law serves as an attractive template that is easy to copy and offers several advantages over US antitrust law.

As the EU already has proven to have set global standards in competition law that other countries adopted, not moving forward reacting on trends would risk the EU's powerful position. Not acting would imply leaving the chance to others. A sequential game theoretic model discussed below provides insights supporting the reasoning.

Deducing Preferences from Impact of domestic Industry

- The more impact a regulation has on domestic industries, the higher the risks and costs of a regulation (US)
- The less impact a regulation has on domestic industries, the smaller the risks and costs of a regulation (EU)

Since the qualification criteria to be a gatekeeper set by the EU are high, no European company is affected by the regulation so far.⁸ The potential risk of negative impact on domestic tech industries directly affected by rules of the DMA is quasi non-existent.

On the one side, there is the legal tradition of the US relying on the consumer welfare standard and a more reluctant approach. On the other side, there is the general predominance of the digital industry that is based in the US. From both factors themselves, preferences sceptical about new stronger regulations can be deduced. Considering both factors together, an even more clear position can be drawn. Due to the fact that digital markets are dominated by US companies, regulation is not a risk symmetrically affecting domestic and foreign companies, it is a potential risk that is asymmetrically affecting the American tech industry. Given that the final outcome and consequences of regulation are uncertain at the moment they are enacted, the expected utility can be looked at from a perspective of prospect theory that is attributing potential losses to be perceived more risky and negative than gains (Kahneman and Tversky 1979). While the US is concerned about potential losses and perceives them as risks to be avoided, the EU is more focused on potential gains. This asymmetric effect due the unequal distribution of tech companies impacts the US more than the EU, and it is reinforced by a sense of loss aversion. The bias to attribute negative outcomes more likely is giving weight to American arguments of potential negative effects. Meanwhile, the EU does not share this perception. It is primarily looking at gains from the regulation that are perceived to be more certain. The factually smaller exposure to risks, due to the absence of domestic tech companies, is amplified by the Prospect Theory. This discourages the US and encourages the EU in its endeavour.

⁸ Details on Qualification criteria of the DMA and designated companies in Appendix B

The legal tradition and simple economic reasoning reinforced by loss aversions of Prospect Theory lead to the conclusion that stronger regulation is much less beneficial for the US.

The Comparative Cost-Benefit Analysis has given an overview of the exposure of the two actors towards gains, costs and risks of stronger regulation. It particularly served to observe the shift of preferences from period to period following certain events and developments. It helped to replicate preferences at a certain point of time given certain condition. However, the model fails to illustrate how future moves of the other actors can shape the reasoning of an actor.

Sequential Game Analysis Period 3

The reasoning of the EU goes beyond looking only at its own options. The previous discussion of regulatory power already showed that there is component of competition between the two actors setting potential global standards. Taking into account this competitive factor, a sequential game theoretic model promises more comprehensive insights. Instead of only reasoning on the own payoff, the models of this subsection to take strategic actions into consideration.

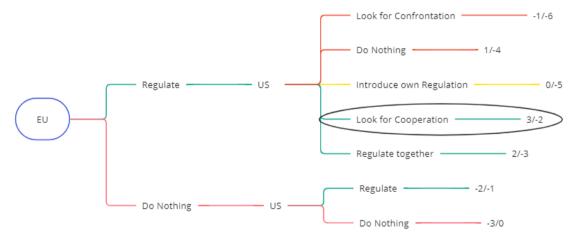


Figure 4: Sequential Game Analysis Period 3

Instead of a more gradual scale representing the hypothetical strength of a regulation in the previous comparative cost-benefit analysis, modelling the situation as a sequential game requires a binary choice in the first round. Since from the perspective of the third period there has been no serious legislative attempt in the US to discuss a new regulation, the model puts the EU at the position to move first.

Preferences EU:	Preferences US:
 Regulate/ look for cooperation: +3 regulate/regulate together : +2 regulate/ do nothing: +1 Regulate/ introduce own regulation : 0 Regulate/ look for confrontation: -1 Do nothing/ regulate: -2 Do nothing/ Do nothing: -3 	 Do nothing/ Do nothing: 0 Do nothing/ regulate: -1 Regulate/ look for cooperation: -2 regulate/regulate together: -3 regulate/ do nothing: 0 Regulate/ introduce own regulation: -5 Regulate/ look for confrontation: -6

Table 2: Preference Ranking

The scale of the payoff for the two actors differ. Due the EU's preference for reforms, staying at the status quo is the least preferred outcome. For the US, the status quo is a situation that it prefers to maintain. It cannot expect an improvement from the situation, any kind of change would be worse than the current situation. Thus, the payoff for nothing happens is set to be zero and for any change payoff is set negative.

Solving the game theoretic models requires to look at subgame-perfect equilibria and applying a process of backward induction. For the subgame the EU does not decide to regulate, the US also chooses not to regulate because 0 > -1. Given the EU regulates, the best response for the US is to look for cooperation because -2 is the best payoff it can receive. Anticipating the American response, the EU knows that the rational response options for the US do not cause harm to the EU. The game has a unique Nash equilibrium for the outcome of regulate/ look for cooperation. As soon the EU decides to regulate, the US cannot reach its most preferred outcomes anymore. Even though the prospectives that the US decides to regulate are small, the EU has the incentive to prevent the outcome do nothing/ regulate in case the US change its preferences and finds political majorities for regulation.

Some rankings of the choices of the preferences might be challenged such as the order of the three most preferred outcomes from the perspective of the EU. One might argue that a passive US doing nothing or a common regulation is preferable for the EU. Given the first mover advantage, being the first one to set standards is putting the EU in the most powerful situation. The preference for subsequent cooperation with the US after the EU introduced its regulation is deduced by the tradition of close transatlantic relations and the fact that cooperation is giving the own regulation additional legitimacy. This component is discussed more detailed in the fourth period.

There are some strategic actions of the US that can intent to change the payoffs. The most common strategy in situations viewed through the lens game theory is to make use of a threat. The more credible a threat is, the more promising a strategic move can be. Considering the DMA as a protectionist action, the US can express their intended

reaction to impose protectionist actions limiting business opportunities to European businesses as an act of retaliation.

Actually observed strategic framing of the US can be interpreted to aim making certain outcomes for the EU more expensive. The narrative of potential security threats was played by US Commerce Secretary Gina Raimondo expressing in a letter "serious concerns that these proposals will disproportionately impact U.S.-based tech firms and their ability to adequately serve EU customers and uphold security and privacy standards" (Bartz 2021; Gold 2021). In a paper by US officials criticising the DMA under final consultation beginning 2022, it is expressed that tech regulation should "not create unintended adverse consequences, such as inadvertent cybersecurity risks or harms to technological innovation" (Stolton 2022). From a game theoretical point of view, this approach emulates the potential threat to the EU of an outcome unfavourable for the US.

Two-Level Game Analysis Period 3

The comparative cost-benefit analysis and the sequential game view the EU and the US as homogenous one actors. The narrative of the third period already touched upon a domestic divide within the US but the models ignore that there are level II actors on the domestic level decisive for how actors act internationally. Putnam (1988) pioneered the modelling of two-level games. In his theory on international negotiations, Putnam highlights the influence of domestic politics on international agreements. Level I negotiators are the representatives of a countries involved in international negotiations pursuing their countries' interest. Level II constituents are domestic stakeholders such as the parliament, government agencies or public opinion that are essential for ratifying international treatments.

One tool for illustrating two-level games are win-sets. A win-set is a set of level I agreements that would receive ratification on level II among constituents (Putnam 1988, 437). Large win-sets make agreement more likely. If an agreement is not in the level II win-set of both parties, there can be no agreement.

Looking at the DMA from the perspective of the EU, there are two dimensions that can be viewed as simplified two-level games. One application is the internal dimension of the procedure that involves the EU member states. The other is the external dimension of potential cooperation with the US. For this dimension no actual negotiations took place. Nevertheless, insights from the two-level game perspective can explain modelling the counterfactual and explain why it did not come to such a situation.

First, the internal dimension. Given that it is a legislation and not an international treaty, the modelling as a two-level games model has to be modified to account for the EU's legislative process. Given the complexity of the EU's procedures involving the EU Commission, the EU Parliament, and the Council representing member states,

applying the two-level game approach is not straightforward. However, the ratification step involving member states can be viewed from the perspective of a two-level game.. The narrative briefly mentioned the reform of the German competition law taking place in parallel to the negotiations of the DMA. The EU's overall objective to achieve harmonized rules and maintain the common market is often leading to the adoptions of the strongest regulation a member state imposed before. Bradford (2012, 40) also mentions the Brussels Effect "playing [...] at two levels" and gives the examples of Germany, the Netherlands and Nordics advocating for harmonization of environmental and privacy regulations by leveraging their own of domestic standards. In case of the GWB §19 (a), a speech on the adoption of the amendment describing the enacted German law as a model for the EU (Durz 2021). The intention of Berlin to put pressure on Brussels has also been confirmed in an interview.

Second, the external dimension. Research for this dissertation did not identify any evidence that the EU and the US got involved in talks negotiating common policy efforts coordinating competition policy in digital markets prior to the EU Commission's proposal for the DMA. Using a hypothetical win-set to analyse the situation before the proposal of the DMA helps shed light on the absence of negotiations. During the term of Trump, his opposition to multilateralism and transatlantic tension would have been a barrier to any negotiations. If the level I negotiator is not interested, further analysis is not required. Even assuming the scenario Biden would win in the elections and be interested in negations with the EU on common policy effort, would not have shown a path to agreement. From the EU perspective, imagining a potential win-set of the US on level II would have shown that an overlap in the preferences for new regulation did not exist. Thus, it can be rational not considering entering international negotiations even if the government representing is on the same line as the EU. The requirement that the level II has to ratify a treaty on common agreements is a reason for the EU and the US administration not to enter negotiations it could not receive level II ratification.

d) Period 4: Domestic divide in the US and international Cooperation (after 2022)

In this fourth and last period examined in this dissertation, the focus is on the change in the position of the US. It is moving from scepticism expressed for the EU's policies in several domains of tech policy towards domestic debates about adopting policies similar to the EU. The presence of political polarization hinders the ability to reach agreements on the matter. Internationally, initiatives for cooperating with the EU are supported. The period starts with the adoption of the DMA, an end is not yet defined.

Biden looking for domestic Majorities

With the title "Republicans and Democrats, Unite Against Big Tech Abuses" President Joe Biden (2023) published an Op-Ed in the Wall Street Journal in January 2023. In what is described as a first call for bipartisan action, the US-President urges Democrats and Republicans to pass a bipartisan legislation "to hold Big Tech accountable" (ibid.). He addresses three issues. The first two concern data privacy and content moderation. Two areas of tech policy that the EU addressed with its own regulation before (GDPR in 2016, Digital Services Act 2022). The third issue Biden points at is antitrust. He starts by introducing that there is "a need to bring more competition back to the tech sector", further he elaborates on the issue stating that tech platforms of a significant size "find ways to promote their own products while excluding or disadvantaging competitors— or charge competitors a fortune to sell on their platform" (Biden 2023). Considering executive power and legislative consensus, he says that "existing authority has limits" and calls upon legislators that the US "need bipartisan action from Congress to hold Big Tech accountable".

The Op-Ed represents a complete U-turn in the tone dealing with the Big Tech companies compared to how the US priorly commented on the approaches to regulate data privacy, content moderation and competition policy in digital markets. From the perspective from any other period discussed before, comments by a US President addressing the issue of dominance of the Big Tech companies would have been deemed highly unlikely. Looking at the change in positions of the US after the adoption of the DMA, the remarks by Biden fit into a picture of a change in US policy facing the reality the EU contributed to with passing the DMA and the DSA. Interestingly, at no point in the Op-Ed, he is referring to how regulations is approached outside the US.

Already in mid of 2021, President Biden signed an executive order addressing the issue of dominant tech companies "undermining competition and reducing innovation" (The White House 2021b). The order calls for executive action in three areas: merger control being more sensitive for "killer acquisitions", the FTC ruling on surveillance and data accumulation unfairly disadvantaging small businesses and rules against anticompetitive restrictions on independent repair shops. The executive order is a sign

that the salience of the issue has been acknowledged in the White House. This new stance is also supported by Biden's nomination of Lina Khan as FTC commissioner March of 2021 and the bipartisan approval by the Congress in June of the year (The White House 2021a).

The fact that President Biden had to publish the Op-Ed two years after the executive order and the nomination of Khan can be traced back to a lack of political majorities and polarization. The division is not only between the Republican and the Democratic party, it is also within the two parties.

In the House of Representatives, lines dividing the chamber are not going strictly along party lines. As journalists comment plans of reforming antitrust legislation, Republicans are not Biden's only roadblock (Cortellessa 2023). Several members of the Democratic party, mostly those from California where the Big Tech companies are based, oppose more strict enforcement and new antitrust laws. On the other side, there are Republicans working hand in hand with Democrats to pass antitrust reforms. The Democrat Congressman David Cicilline heading the House's antitrust subcommittee and the Republican Congressman Ken Buck are chamber's leading advocates for bipartisan antitrust legislations taming the power of the Big Tech companies.

In general, both parties have prominent Senators and congressmen fiercely attacking the Big Tech. Bipartisan initiatives agreeing on the issue and on a policy to counteract as the one by Cicilline and Buck are a rare exemption. Considering the two as moderates in their respective party working solution-oriented towards one direction, both parties have figures contrary to what is feasible to achieve within a bipartisan initiative. One radical critic of the Big Tech in the Democratic party and one of the first high-level politicians pointing at issues related to market dominance of Big Tech players is Senator Elisabeth Warren. Already in 2019 as part of her campaign in the Democrats' primaries, Warren (2019) explicitly advocated for a breakup of Amazon, Facebook and Google justified by concerns around market dominance. Even though the justifications are mostly aligned with moderate movements for more new and strict competition law in the US and the EU, only a small minority of established forces would agree with the measures.

Radical critics of the Big Tech in the Republican party are similarly aggressive towards GAFAM companies. Congressman Jim Jordan is representative for this partisan view attacking Big Tech companies for having a "systemic bias and abuse against conservatives" (Birnbaum 2021). As Democratic Senator Warren, Republican Congressman Jordan considers breakup as the most desirable solution (ibid.). Despite the common sympathy for potentially breaking up tech giants, the extreme representatives are on very different pages why the impact of Big Tech is perceived negative.

There is a divide in the domestic level of the US between the executive and the legislative branch. The executive branch with the two leading figures Jonathan Kanter

as head of the Department of Justice Antitrust Division and Lina Khan as the Chair of the FTC is pursuing an ambitious enforcement of antitrust against the Big Tech companies. The President pushes for reforms of legislation. Most of the Democratic party's representatives agree but lack a majority. A number of Republican might balance out the lack of support from Californian and Washington state pro-business Democrats non-supportive for reforms. However, views strongly divided in the reasoning for the scepticism about Big Tech contribute to polarised positions.

Biden looking for International Cooperation

The lack of domestic consensus on issues in antitrust in the legislative chambers is not a barrier for the executive to follow trends in the international sphere. Initiatives between the US and the EU as well as a multilateral commitment of the G7 indicate that the Biden Administration is looking for cooperation on the issue with its international partners.

In June of 2021, the EU and the US launched the EU-US Trade and Technology Council (TTC). It covers broader questions around trade and technology and aims to provide a discussion forum to coordinate policy efforts. In December of the same year, the two partners started another initiative. The Joint Technology Competition Policy Dialogue (TCPD) "aims at sharing insights and experience with an aim towards coordinating as much as possible on policy and enforcement" (European Commission 2021). The topic incudes challenges faced in digital investigations, such as network effects, data, interoperability and other characteristics typical of new technology and digital markets. High-level meetings of representatives of the DG Competition, the FTC, the DoJ antitrust division and discussions at the technical level aim to coordinate policy and enforcement efforts.

Also in another setting, the EU and US committed to cooperation in the field. Under the German and the French presidency of the G7, the intergovernmental political forum addressed the issue of competition policy in digital markets. Under the German G7 presidency, the OECD Competition Division was commissioned to compile an inventory of proposed or enacted legislative reforms to address competition in digital markets published in October 2022 (OECD 2022).

In a declaration after a meeting of the G7 digital minister in May 2022, the participants declared "to further deepen cooperation, in particular through existing international multilateral fora, on digital competition issues including with regards to platforms regulation and its implementation" (G7 Digital Ministers 2022).

Comparative Cost-Benefit Analysis Period 4

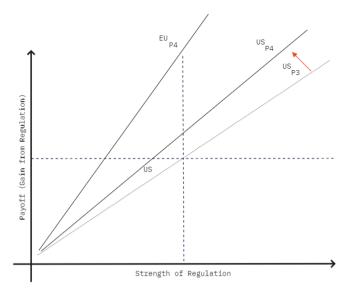


Figure 5: Comparative Cost-Benefit Analysis Period 4

In the fourth period, for the first time, the payoff is changing for the US. The shift towards benefitting from moving to stronger regulation can be traced back to domestic and international developments. The formation of initiatives in Congress working on bipartisan bills as well as executive actions represents domestic shift towards stronger regulation. Internationally, the impact of the DMA is impacting the US tech companies threatening the US as a regulator to loose global influence.

Deduction from Foreign Regulator's Power	
• The more impact a foreign regulator has on domestic industries, the	ne higher
the payoff for cooperation (US)	

With the adoption of the DMA, the EU set a standard for regulations affecting US tech companies. For the US as a regulator, the DMA poses a relative loss of power. Regulated companies need to comply with EU regulation. Those companies have two options, adopting the new standard globally or offering products and services in two version, one complying with EU standards and one for non-EU countries with no changes. For the US regulators, both options do not seem desirable. Either Brussels is setting the standards for services offered by its largest domestic companies or consumers in the US are worse off, assuming that EU standards benefit consumers.

The commitment of the G7 and the OECD inventory collecting and comparing legislations already serves as an indication for other jurisdictions looking for a blueprint to prepare potential regulations. Thus, for the country home to the predominantly targeted companies of the DMA and potentially other regulation, not being able to offer anything puts some pressure to work out an own legislation.

One might object on the deduction that setting cooperation and strong regulation is blurry and mixing up two different preferences. Since the EU decided to go for more strict regulations, cooperation with EU requires openness for more strict rules.

For the EU, after the adoption of the DMA, there are no changes in their preferences. Developments such as in the G7 confirm their efforts and prospect potential impact on the adoptions of similar legislations in other jurisdictions. Transatlantic initiatives such as the TTC or the TCPD play in the EU's cards. Instead of prior public criticism by the US in the phase of consultations on the act, the installed communication channels create the impression of the US giving legitimacy to the EU's legislation. This is particularly strengthening the EU's position when third countries evaluate potential sources of inspiration for adopting similar regulations.

Two-Level Game Analysis Period 4

As for period 3, period 4 does not offer negotiations of a treaty in a typical two-level game situation. However, the emergence of TTC and TCPD can be examined from that perspective. As a recap, the two forums are high-level forums for exchange between government officials, heads of competition authorities and their technical staff.

The US and the EU found each other in a similar situation in the 1990s. As trade and investments rapidly increased, economic internationalization progressed. This led to a rise in competition cases with overlapping jurisdictions, posing challenges for competition policy and enforcement. For reacting to the challenge of overlapping jurisdictions, closer coordination was required.

The situation back then resulted in the 1991 EU-US Competition Cooperation Agreement. The agreement covers reciprocal case notification, information exchange, regular bilateral meetings, coordination of enforcement activities and procedures for requesting enforcement action.

Damro (2006) analysed this historic precedent using a two-level game and principalagent theory. He argues that the EU and the US pursued a non-treaty approach to bilateral agreement because they were aware of "domestic institutional obstacles" that would imply "excessive costs associated with lengthy and complex domestic approval processes" for pursuing a formal treaty (Damro 2006, 183). To eliminate the constraints posed by the threat of a level II rejection when ratifying a treaty, the EU and the US delegated the negotiation to their respective competition authorities for level I negotiations on a non-treaty agreement.

The situation from 1991 is different to the one after the adoption of the DMA in 2022. However, the TCPD that is entrusted to promote coordination in policy and enforcement of competition policy in digital markets has the same actors on the table as the negotiators of the 1991 EU-US Competition Cooperation Agreement. Even though there is no evidence that the TCPD is pursuing any negotiations of a treaty or non-treaty agreement, the challenge the dialogue forum is supposed to solve shows some similarities with the situation in 1991. The DMA created a situation of diverging competition policies that are likely to result in different outcomes of competition cases. This threatens the idea of having a global level playing field. Such a scenario is neither in the interest of the EU nor the US. The US government is aware that it does not have political majorities for reforming its antitrust laws for having more harmonized standards. Having a channel for solving potential disputes and finding minimum agreement is a channel for being more involved in the debate with the EU as the more active regulator.

In addition to obstacles for cooperation examined by the two-level game model, practical boundaries such as institutional differences rooted in law set boundaries for cooperation. One of the interviewee raised the point that "all politics is local". Even if the US and the EU had the best intentions, according to the interviewee, too close cooperation would not work.

3) Discussion: What paved the Way for the DMA?

The last section on modelling the politics on the path to the DMA has examined the perspective of the EU and the US over the last two decades in four separate periods. This section looks at trends going through the four periods.

Based on the analysis modelling the perspectives of the two actors over the four periods, this dissertation identified three trends significantly contributing to the adoption of the DMA. First, the public perception of Big Tech companies is turning to be negative related to the EU's policy objective of digital sovereignty. Second, a regulatory gap left by the US allowed the EU to fill a vacuum. Third, the Brussels Effect and particularly the aftermath of the GDPR encouraged policymakers in Brussels to pursue their plans. This section looks at the broader perspective by integrating the insights from the models used throughout the four periods.

For a long time, the Big Tech companies enjoyed a positive perception in the public. Search engines to explore the web, social networks to connect with friends or marketplaces to find any product seemed to make life easier. Negative sides of it only became more apparent in the 2010s. Google dominating the search market can potentially diminish the traffic from any emerging new competitor in one of its services. Due to its dominance in this intermediating position, Google can redirect web traffic and prevent competition. The acquisition of Instagram by Facebook is also commonly viewed very critically as a move of today's Meta (Facebook holding) company to consolidate its dominant position and prevent potential competitors from coming up. Amazon as the dominant online marketplace makes headlines to charge high commissions, using its data for developing its own products competing with products by merchants on its platform or labour protests. Beyond issues relevant for competition policy, concerns about content moderation for acting on hate speech, data privacy concerns or labour right issues of the Gig Economy are topics in the discourse putting a negative light on the tech industry and particularly the GAFAM.

Several events can be linked to a shift in public perception. The Snowden revelation in 2013 and the Cambridge Analytica Scandal in 2018 have significantly altered the perception of people, particularly in Europe, regarding tech companies involved in data breaches and the consequences of their dominant position in accessing user data. Overall, the developments have driven the desire of the EU to pursue digital sovereignty. For the US, the positive perception seems to be longer lasting due to the benefits the tech player create for its domestic economy. However, more recent scandals such as the one triggered by whistleblower Frances Haugen on harms of social media knowingly accepted by tech companies for profits suggest that the US is also close or already has reached a tipping point similar to the EU.

When the perception of one industry is turning to be negative, lawmakers feel public pressure to regulate this particular sector of the economy. The banking and financial sector after the financial crisis of 2008 serves as an example of the dynamics contributing to becoming a target by regulators. External events such as a financial crisis or reports by a whistleblower uncovering certain undesirable business practices foster the general perception that an industry needs to be regulated.

This general shift in the perception of the Big Tech players significantly strengthened the EU in acting in the field of data privacy (GDPR), content moderation (DSA) and also competition policy (DMA). Even though the US did not become active in legislative forms creating new regulations or updating existing ones, the congressional hearings of the CEOs of the GAFAM companies strongly indicate that politics reflect the overall public perception.

The second decisive factor allowing the EU to take the lead as the first mover enacting legislation for competition policy in digital markets was the inaction of the US. Bradford (2020b) sees "America's laissez-faire approach" to have "left the door wide open for the European Union to step in as the global rule-maker". Even US lawmakers such as Congressman Cicilline self-critically reflect that the "Europeans were ahead of us [the US] in understanding the consequences of monopoly power in technology firms" and admit that "American lawmakers were slow" (Scola 2023).

Looking at this gap the US left from the perspective of the analyses used in the four periods to model the preferences and strategical consideration from the perspective of the US and the EU supports the descriptions by Bradford and Cicilline. The cost-benefit analysis for the first three periods revealed the preferences of the EU for stronger regulation. At the same time, for the US due to domestic factors such as their legal

tradition, the economic importance of Big Tech and their public perception with positive views on the industry enduring longer no strong preferences for regulation developed.

In addition, perception turning to the negative and the gap left by the US, the Brussels Effect can be considered as essential factor pushing the EU to follow its endeavour. Even though there was initial scepticism within the EU and from private and state actors abroad, the GDPR allowed the EU to establish its reputation as a benchmark or "Gold Standard" in data protection and privacy regulations. Benefiting by its economically important market no international company would like to give up, its regulatory capacity and legislative processes enabling rather smooth approvals only requiring simple majorities, the EU has a position of power.

Unlike the comparative cost-benefit analysis in periods 1 and 3, the sequential game and the two-level games used for the analysis in periods 3 and 4 go beyond merely looking isolated on each preference. By modelling the strategic interaction between the two actors, it becomes evident that the EU, anticipating the moves of the US, is empowered to act unilaterally and pursue its preferences for strong regulation. Looking at period 4, considerations made based on the dynamics of two-level games, the historical precedent of the 1991 EU-US Competition Cooperation Agreement (Damro 2006) and developments in other jurisdictions uncover potential reasoning of the US to change its position.

Conclusion

With the focus on the EU's resolute action in adopting the DMA and the position of the US shifting from rejection towards openness for cooperation, this dissertation examined the path to the DMA and the Transatlantic perspective on it. Divided into four periods, events significantly altering the preferences of the two actors have been analysed in different models. Cost-benefit analyses for each period indicated a gradual development of the EU to have more strict regulations. For the US, initial scepticism rejecting more strict regulation and preferring the status guo changed after the adoption of the DMA. The factors decisive for the preferences of the two actors impacted the EU and the US asymmetrically. The absence of major tech companies in the EU and the faster-moving decline in positive perception of Big Tech reinforced the policy objective of digital sovereignty. For the US, the economic relevance of Big Tech posed a larger risk of overenforcement. At the same time, public perception of the tech industry was staying more positive than in the EU. The US's position of not regulating posed an opportunity for the EU. Utilising insights from strategic interactions through the perspective of a sequential game and two-level games, models supported the Brussels Effect as an amplifying factor for the EU to set global standards.

The models relied on simplifications that require assumptions and abstractions. Defining preferences and strategic actions requires information that is not easily accessible. Deductions of preferences from theories clarified how this dissertation came to the stated preferences. The models served as the basis for examining the factors decisive for preference formation and the impact of the strategic setting. The degree of generalisability is limited due to the singularity of events and circumstances in the case of the DMA.

The implications of this research shed light on the broader landscape of tech policy. The DMA and competition policy are only one domain of the evolving field of tech policy. In the past, related policy domains such as data privacy (GDPR) or content moderation (DSA) showed similar dynamics. With the AI Act and future debates of tech policies, dynamics of a Transatlantic Perspective might develop similarly to the DMA. However, any policy is distinct and risk exposure for the EU from under- or overregulation cannot easily be transferred from the DMA to other policy domains. The models cannot incorporate any factor impacting the two actors but can guide for analysing other domains of tech policy.

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Appendix

A. Digital Markets Act

In a nutshell

- The DMA defines "gatekeepers" as large online platforms that act as important gateways between business users and consumers, creating bottlenecks in the digital economy
- Gatekeepers are designated based on three main criteria: size impact on the internal market, control of an important gateway, and an entrenched position
- The DMA establishes a list of do's and don'ts for gatekeepers to ensure fair and open digital markets, promoting competition and innovation

Timeline of the DMA

- December 2021: Proposal by the Commission for the DMA
- November 2022: Agreement reached in the Council
- March 2022: Deal reached in the trialogue negotiations
- July 2022: .The European Parliament approves the DMA
- May 2023: The DMA application starts
- June 2023: Notification Deadline for potential gatekeeper
- September 2023: Designation of Gatkeepers
- Mach 2024 Application of obligations

Designation Criteria

After debate on the thresholds, in its final version, the DMA defines Gatekeepers affected by the new regulation by several criteria. They do need to provide certain core platform services and meet a range of thresholds. Core platform services include search engines, social networks, cloud services advertisement services few more defined business models. The quantitative designation criteria are

- 7.5 billion euros of annual revenue,
- a market capitalisation of more than 75 billion euros and
- a minimum of 45 million private and 10.000 business monthly users.

If companies provide one or more of these core platform services and meet the designation thresholds, they had to notify the Commission in the first stage of the implementation of the DMA.

Do's and Don'ts

Some examples of do's and don'ts include

Do's	Don'ts
 Allow third parties to inter-operate with the gatekeeper's own services in certain specific situations Permit business users to access the data they generate on the gatekeeper's platform Provide advertising companies with tools and information for independent verification of their advertisements hosted by the gatekeeper 	 Favor the gatekeeper's own services and products over similar offerings from third parties in ranking on the platform Prevent consumers from linking to businesses outside of the gatekeeper's platform Restrict users from uninstalling pre-installed software or apps if they wish to do so

Fines

Fines of the DMA are up to 10% of the company's annual revenue or even 20% in cases of repeated infringement. In cases of "systematic infringements", non-financial behaviour and structural remedies can be imposed – these are the last resort that could trigger attempts of breaking companies up.

Designated Gatekeeper

In the process of implementing the DMA, recently seven companies declared to qualify as gatekeepers that are affected by the requirements of the DMA (European Commission 2023). Among the potential gatekeepers are

- four US-American companies (Alphabet, Amazon, Apple, Meta),
- one Chinese (ByteDance) and
- one South Korean (Samsung).

Seven companies and none of them is European. The only European company that would have been close to fulfil the set criteria booking.com was not part of the group notifying the Commission. This means that for now there is no single European company affected by the DMA.

B. Interviews

The Interviewees included two parliamentarians:

- One member of the European Parliament in a leading role in the consultations of the DMA
- One member of the German Bundestag leading role in the consultations of the §19 (a) joined by his assistant who supported the legislative process

The interviews informed the narrative sections for identifying events relevant for the adoption of the DMA and the German § 19 (a) and checked assumptions and setting used in the modelling.

The interviews were conducted with the aim of achieving maximum disclosure from the participants. To ensure an open conversation, no audio recording or transcription of the interviews was made. Interviewees were assured anonymity and the limited disclosure of their function in this dissertation.

The interviews lasted 30 minutes and were conducted virtually.

C. Thesis Report

Since the submission of the thesis report in September 2021, the field developed dynamically. Due to a leave of absence, the start working on the dissertation followed one year later than initially intended. The author of this report agreed on changes of the scope with the supervisors. The thesis report was attached to the mail sent to the supervisors.

Signature page

Author's name and surname(s): Leon Julius Rückert

As the author and sole copyright holder over an original piece of work, a final master dissertation, on *the process that led to the Digital Markets Act*, entitled The Path to the Digital Markets Act.

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Word count: 13.191