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New obligations under the EU Digital Markets Act: a critical assessment

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*To everyone I have crossed paths with during these two years,
be it for an hour, for a day or for the whole journey.*

Thank you for the memories and for sticking around.

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List of abbreviations

ACM	Authority for Consumers & Markets (Dutch competition authority)
AI	Artificial Intelligence
API	Application Programming Interface
B2B	Business to Business
CJEU	Court of Justice of the European Union
CPS	Core platform service(s)
DMA	Digital Markets Act
DSA	Digital Services Act
EP	European Parliament
EU	European Union
FRAND	Fair, Reasonable And Non-Discriminatory
GAFAM ¹	Google, Apple, Facebook, Amazon and Microsoft
GDPR	General Data Protection Regulation
HOTREC	Hotel, Restaurant and Cafés in Europe
IAP	In-App Purchase
IAR	Impact Assessment Report
ISP	Internet Service Provider
IMCO	Committee on the Internal Market and Consumer Protection
M&As	Mergers and Acquisitions
MFN	Most Favoured Nation
MVNO	Mobile Virtual Network Operator
NCA	National Competition Authority

¹ Note: despite Facebook's recent rebranding as Meta, the older, more famous GAFAM acronym will be used as it remains more widely used and recognised than the now-correct GAMAM.

NFC	Near-Field Communication
<i>OJ</i>	<i>Official Journal of the European Union</i>
OPC	Open Public Consultation
OS	Operating System
OTA	Online Travel Agency
P2B	Platform To Business
TFEU	Treaty on the Functioning of the European Union
US	United States
VA	Virtual Assistant

1. Introduction

On 15 December 2020, the European Commission published its legislative proposal for a Regulation on contestable and fair markets in the digital sector, which has then become known as the Digital Markets Act (DMA). After the publication of the proposal, what followed was a 15-month-long legislative process which saw the Committee on the Internal Market and Consumer Protection (IMCO) as the main responsible committee for the European Parliament² and the Competitiveness Council (COMPET Council) with its related working party as the competent conformation of the Council.³ After the adoption of the EP's and the Council's positions on the DMA, respectively on 15 December 2021 and 25 November 2021, four trilogues concentrated in the three-months period between January and March 2022 led the two co-legislators to a political agreement on the final text of the DMA which was reached on 24 March 2022.⁴ After review by the legal services to finalise the juridical details of the language employed, the text was adopted at first reading by the EP on 5 July 2022⁵ and by the Council on 18 July 2022.⁶ It has then been signed on 14 September 2022⁷ and it is expected to be published on the Official Journal of the EU by the end of September. When published, the DMA will enter into force 20 days after its date of publication, and it will become applicable 6 months after its entry into force.⁸

The DMA is part of a broader Digital Services Act package, which also encompasses the upcoming Regulation on a Single Market For Digital Services (known as the Digital Services Act, or DSA) proposed and discussed in parallel to the DMA⁹ and which was complemented

² Council of the European Union, "Proposal for a Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act) – Progress report", 8807/21, 2021, <https://data.consilium.europa.eu/doc/document/ST-8807-2021-INIT/en/pdf>.

³ *Ibid.*

⁴ Council of the European Union, "Proposition de Règlement du Parlement Européen et du Conseil relatif aux marchés contestables et équitables dans le secteur numérique (législation sur les marchés numériques) – Analyse du texte de compromis final en vue d'un accord", 8395/22, 2022, <https://data.consilium.europa.eu/doc/document/ST-8395-2022-INIT/x/pdf>.

⁵ European Parliament legislative resolution of 5 July 2022 on the proposal for a regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act), P9_TA(2022)0270, 2022, <https://data.consilium.europa.eu/doc/document/ST-10966-2022-INIT/en/pdf>.

⁶ Council of the European Union, "Voting result on the Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act)", 11507/22, 2022, <https://data.consilium.europa.eu/doc/document/ST-11507-2022-INIT/en/pdf>.

⁷ "Procedure File: 2020/0374(COD) | Legislative Observatory | European Parliament", Oeil.Secure.Europarl.Europa.Eu, last accessed 21 September 2022, [https://oeil.secure.europarl.europa.eu/oeil/popups/ficheprocedure.do?reference=2020/0374\(COD\)&l=en](https://oeil.secure.europarl.europa.eu/oeil/popups/ficheprocedure.do?reference=2020/0374(COD)&l=en).

⁸ Art. 54 DMA. This is expected to happen by mid-2023.

⁹ Proposal for a Regulation of the European Parliament and of the Council on a Single Market For Digital Services (Digital Services Act) and amending Directive 2000/31/EC, COM/2020/825 final, 2020.

in February 2022 by the Proposal for a Regulation on harmonised rules on fair access to and use of data (now known as the Data Act).¹⁰ Together, the new Regulations expand on the existing body of EU regulation on the digital sector, encompassing pieces of legislation such as the e-Commerce Directive,¹¹ the GDPR¹² and the P2B Regulation,¹³ to address the “significant gaps and legal burdens” that remained unaddressed due to the rapid development and evolution of digital services, in particular online intermediaries and platforms.¹⁴ In particular, the DMA focuses on ensuring “fairness” and “contestability” in digital markets through a list of special obligations on “gatekeeper” platforms, while questions related to illegal or harmful content, goods and services on online intermediaries were tackled by the DSA. “Gatekeepers” are a subset of very large digital platforms “with a systemic role in the internal market that function as bottlenecks between businesses and consumers for important digital services”,¹⁵ and they are designated according to the procedure provided for in Article 3 DMA when they satisfy the criteria of having a “significant impact on the internal market”, providing “a core platform service which is an important gateway for business users to reach end users” and enjoying (or being about to enjoy) “an entrenched and durable position”.¹⁶ These criteria are presumed to be satisfied when the undertaking at hand satisfies certain quantitative thresholds related to its annual Union turnover or market capitalisation and to its active user base.¹⁷ Under the DMA, undertakings designated as gatekeepers will have to comply with a set of obligations which tackle their “unfair” practices which are allegedly not properly addressed by existing competition rules.

This dissertation is structured as follows. The literature review in Chapter 2 provides an overview of the characteristics of digital platforms and platform ecosystems described in the academic literature, before moving to the new regulatory issues raised by digital platforms with a special focus on how their peculiar characteristics are difficult to account for using traditional

¹⁰ Proposal for a Regulation of the European Parliament and of the Council on harmonised rules on fair access to and use of data (Data Act), *COM/2022/68 final*, 2022.

¹¹ Directive 2000/31/EC.

¹² Regulation (EU) 2016/679.

¹³ Regulation (EU) 2019/1150.

¹⁴ "The Digital Services Act Package", Ec.Europa.Eu, last accessed 16 September 2022, <https://digital-strategy.ec.europa.eu/en/policies/digital-services-act-package>.

¹⁵ "Digital Markets Act (DMA)", Competition-Policy.Ec.Europa.Ec, last accessed 16 September 2022, https://competition-policy.ec.europa.eu/sectors/ict/dma_en.

¹⁶ Art. 3(1) DMA.

¹⁷ *Ibid.*, Art. 3(2). These thresholds are not absolute – Art. 3(5) DMA allows undertakings which satisfy them to present “sufficiently substantiated arguments” to rebut its designation as a gatekeeper, while Art. 3(8) DMA allows the Commission to design an undertaking which satisfies the requirements of paragraph (1) as a gatekeeper even if it does not satisfy the quantitative thresholds.

competition law concepts. Chapter 3 presents in detail the research design behind this dissertation, while Chapter 4 describes the content, purpose, legislative evolution and stakeholders' concerns for each of obligations selected for discussion following the what was set out in the research design. The critical analysis in Chapter 5 identifies common features and concerns which cut across the obligations, suggesting that several of them will likely need to be further specified in order to be properly implemented, as well as identifying some specific obligations that are singled out for the particular concerns they raise. These concerns regard either the business model agnostic approach of the DMA, which raises problems as the implementation of certain obligations does not sit easily with all types of business model, or the fact that, by not considering enough the positive effects of the governance role played by the platform owner, two specific obligations risk to create vulnerabilities in terms of end user cybersecurity and of the proliferation of spam and illicit offerings by placing too broad restrictions on platform governance mechanisms. The critical analysis also finds that the obligations introduced by the DMA address competitive issues by directly prohibiting individual "unfair" practices. This finding constitutes the starting point of the discussion contained in Chapter 6, which recognises how such a closed-list approach has the merit of providing a simple and fast remedy to many of the competition issues identified in the literature, but also the demerit of not introducing the necessary instruments for general competition law to properly assess the conduct of platform owners outside of the scope of the list of practices banned by the DMA. This has the dual implication of, on one hand, prohibiting certain practices regardless of their competitive or welfare implications, leading to the business model and governance concerns described in Chapter 5; and, on the other hand, of leaving all kinds of conduct not falling under the DMA's closed list of obligations in the realm of pre-DMA antitrust enforcement where all the shortcomings evidenced in the previous chapters will continue to apply. Concluding remarks are drawn at the end, arguing that this latter shortcoming is the main limitation to the DMA's ability to bring antitrust enforcement on step with the developments introduced by platforms and ecosystems.

2. Literature review

2.1. What do we mean by “platform”?

The concept of *platform* is a frequently used one, be it in common parlance, in institutional and commercial settings or in the academic literature. Despite this, the ambiguity of the term has been noted, with Robert Gorwa¹⁸ underlining how it is employed in different ways by various scholarly communities. A common trait is that academic definitions of platforms often tend to emphasize their role in enabling, shaping and, more generally, mediating interactions between different participants. Parker, Van Alstyne and Choudary, for instance, gave the following definition:

“A *platform* is a business based on enabling value-creating interactions between external producers and consumers. The platform provides an open, participative infrastructure for these interactions and sets governance conditions for them. The platform’s overarching purpose: to consummate matches among users and facilitate the exchange of goods, services, or social currency, thereby enabling value creation for all participants.”¹⁹

In a similar fashion, Kenney and Zysman described digital platforms as “multisided digital frameworks that shape the terms on which participants interact with one another”.²⁰ Besides emphasizing how this is achieved through “complicated mixtures of software, hardware, operations, and networks”,²¹ however, they accompanied this looser definition focused on participant interactions and their governance with a stricter one, which recognises as a key aspect how platforms “provide a set of shared techniques, technologies, and interfaces to a broad set of users who can build what they want on a stable substrate”.²² This distinction between definitions focusing on interactions and definitions emphasizing the role of complementors has been further recognised by McIntyre and Srinivasan, who distinguished between industrial organisation (IO) conceptualisations seeing platforms as “interfaces [...]”

¹⁸ Robert Gorwa, "What Is Platform Governance?", *Information, Communication & Society* 22, no. 6 (2019): 854-871, doi:10.1080/1369118x.2019.1573914.

¹⁹ Geoffrey G. Parker, Marshall W. Van Alstyne and Sangeet Paul Choudary, *Platform Revolution: How Networked Markets Are Transforming The Economy - And How To Make Them Work For You* (New York: W. W. Norton & Company, 2016) (emphasis in original).

²⁰ Martin Kenney and John Zysman, "The Rise Of The Platform Economy", *Issues In Science And Technology* 32, no. 3 (2016), <https://issues.org/rise-platform-economy-big-data-work/>.

²¹ *Ibid.*

²² *Ibid.*

that can serve to mediate transactions between two or more sides”²³ and technology management conceptualisations which “extend this notion by emphasizing the additional function of platforms as building blocks that serve as the foundation on which other firms can build related products or services”.²⁴ Other scholars have focused on specific sub-groupings of platforms: one example is Tiwana’s definition of *software-based platforms* as “software-based product[s] or service[s] that [serve] as a foundation on which outside parties can build complementary products or services”, so that “a software platform is therefore an extensible software-based system that provides the core functionality shared by “apps” that interoperate with it, and the interfaces through which they interoperate”.²⁵ In specifying what platforms are *not*, Tiwana explicitly excluded one-sided platforms, which are considered as “products or services often confused or mislabelled as platforms”²⁶ since they do not facilitate interactions between two or more distinct groups of participants. Outside of the academic literature, the term has been deployed by technology companies to promote particular brandings of their offerings, and more widely it has become “shorthand both for the services provided by many technology companies, as well as the companies themselves”.²⁷

Possibly in the light of this ambiguity, the DMA evaded the question of providing a formal definition of the concept of platform, deploying the alternative concept of “core platform service” instead. Core platform services, in the DMA, are not recognised through a definition containing the characteristics a digital service needs to have in order to be categorised as a core platform service; instead, they are individuated by reference to an exhaustive list of digital services.²⁸ According to Article 2(2) DMA, in fact:

“ ‘Core platform service’ means any of the following:

- (a) online intermediation services;
- (b) online search engines;
- (c) online social networking services;
- (d) video-sharing platform services;

²³ David P. McIntyre and Arati Srinivasan, "Networks, Platforms, And Strategy: Emerging Views And Next Steps", *Strategic Management Journal* 38, no. 1 (2016): 141-160, doi:10.1002/smj.2596.

²⁴ *Ibid.*

²⁵ Amrit Tiwana, *Platform Ecosystems: Aligning Architecture, Governance, And Strategy* (Waltham: Morgan Kaufmann, 2014), p. 5.

²⁶ *Ibid.*

²⁷ Robert Gorwa, "What Is Platform Governance?" (see note 18).

²⁸ Notice how some of the entries in the list, such as operating systems or virtual assistants, blur the line between “product” and “service” but are nonetheless categorised as “services” for the purposes of the DMA.

- (e) number-independent interpersonal communication services;
- (f) operating systems;
- (g) Web browsers;
- (h) virtual assistants;
- (i) cloud computing services;
- (j) online advertising services, including any advertising networks, advertising exchanges and any other advertising intermediation services, provided by an undertaking providing any of the core platform services listed in points (a) to (i);”²⁹

The Impact Assessment Report which accompanied the Commission proposal for the DMA justifies such a choice to provide a closed list rather than an open-ended definition for the sake of ensuring “the highest level of legal certainty” by “identify[ing] services as clearly as possible in the rules themselves”.³⁰ The IAR specifies how these were identified by looking for digital services exhibiting the cumulative characteristics of (a) multi-sidedness and (b) “strong asymmetry in bargaining power” stemming from the presence of few, large players acting as a gateway between business and end users which become vulnerable to unfair conduct in the light of their economic dependence.

While this focus on the empirical presence of gatekeeping behaviour is original, and stems from the Commission’s intent to limit the scope of the DMA to those digital services which are more “concerning” from an internal market perspective,³¹ the operationalisation described above comes closer to the strand of academic definitions focused on interactions than to the one focused on the opportunities for the emergence of complements. The relevance given to multi-sidedness and to enabling business-customer interactions echoes Parker, Van Alstyne and Choudary’s definition, as well as the broader version of Kenney and Zysman’s one, the IO accounts mentioned above, and Tiwana’s concern with the exclusion of one-sided services. The IAR’s concern with the abuse of gatekeeping positions is also an implicit recognition of the governance aspect contained in such definitions. Because of this, this dissertation will also follow the strand of interactions-based definitions and consider as platforms all those multi-sided digital frameworks that enable, shape and provide governance for interactions between

²⁹ Art. 2(2) DMA.

³⁰ European Commission, “Commission Staff Working Document - Impact Assessment Report accompanying the document Proposal for a Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act)”, *SWD(2020) 363 final*, 2020 (hereafter abbreviated as “IAR”), p. 37.

³¹ Recital 12 DMA.

different groups of participants, without considering the possibility to develop external complements as a necessary condition for such definition. A caveat of such an approach is that some platforms which fit this definition will still not be captured by Article 2(2)'s list of CPS, as they do not (yet) show the imbalances in bargaining power considered as necessary in the IAR.³²

2.2. Platform characteristics, governance and ecosystems

The emphasis on multi-sidedness shown above is justified in the light of the fact that the intermediation role played by platforms is at the very core of their value proposition. Tiwana states it very clearly, by claiming that “[t]he platform creates value by facilitating participants on one side finding those on the other side, or mediating their interactions”.³³ A more nuanced perspective by Cennamo et al. maintains the central role of interaction intermediation, but distinguishes between *existing interactions*, which already used to happen off-platform and are only made more efficient by the platform's facilitating role (e.g., payment systems), *latent interactions*, which would have existed off-platforms but did not happen because of prohibitively high transaction costs and are thus enabled by the platform's mediation (e.g., aggregators collecting and comparing large numbers of offerings from different websites), and *novel interactions*, which encompass those new classes of interactions that only occur on platforms (e.g., adding another user to one's friend list).³⁴ Parker, Van Alstyne and Choudary bring this to the point of recommending to design platforms around a *core interaction* characterised by its participants, the value unit exchanged and the filters in place to ensure the relevance of such exchanges for users.³⁵ They also note how, while goods or services and some form of currency *may* be part of the exchange, information exchanges through the platform itself are part and parcel of *every* interaction that happens on the platform.³⁶ While multi-sided often means two-sided for most platforms,³⁷ it is important to remember that (a) interactions between users on the same side *do* also happen and are relevant, and (b) three-sided (or more) platforms are becoming more prevalent as well (Tiwana makes the example of end users, app

³² The IAR (p. 38) provides the example of industrial B2B platforms.

³³ Amrit Tiwana, *Platform Ecosystems: Aligning Architecture, Governance, And Strategy* (see note 25), p. 32.

³⁴ Carmelo Cennamo et al., "Digital Platforms Regulation: An Innovation-Centric View Of The EU'S Digital Markets Act", *SSRN Electronic Journal*, 2022, doi:10.2139/ssrn.4152120.

³⁵ Geoffrey G. Parker, Marshall W. Van Alstyne and Sangeet Paul Choudary, *Platform Revolution: How Networked Markets Are Transforming The Economy - And How To Make Them Work For You* (see note 19).

³⁶ *Ibid.*

³⁷ Amrit Tiwana, *Platform Ecosystems: Aligning Architecture, Governance, And Strategy* (see note 25), p. 32.

developers and advertisers for free apps on the iOS App Store).³⁸ While “[m]ultisided markets have long existed outside of the technology industries”,³⁹ digital platforms are supported by technological advancements that enabled them to challenge traditional modes of intermediation and offer superior alternatives.⁴⁰

The importance of interactions for a platform’s value proposition is strengthened even more by a related, but conceptually distinct, feature of platforms – network effects. Network effects – also known as *network externalities* in the economic literature⁴¹ – is a term used to refer to “the impact that the number of users of a platform has on the value created for each user”.⁴² They represent “the main source of value creation and competitive advantage in a platform business”,⁴³ and they can represent a significant source of barriers to entry that consolidate an incumbent platform’s position.⁴⁴ Network effects can be categorised according to their direction (positive or negative) and sidedness (same-side or cross-side).⁴⁵ Thus, on a platform displaying *same-side positive network effects*, every new entrant to one side will increase the platform’s value for all participants on that same side (think, for example, of social network users, who see the number of potential connections they can form with other users increase as new users sign up to the platform), while on a platform displaying *same-side negative network effects* new entrants will decrease the platform’s value for other participants on their own side (think of sellers on e-commerce platforms, who have to face more competition as other sellers join the platform). Similarly, *cross-side positive network effects* increase the platform’s value for participants on the opposite side of the platform respect to the new entrants (more users of a software platform will imply more potential customers for app/program developers, and vice versa more developers will imply more choice for end users), while *cross-side negative network effects* will cause a reduction in the platform’s value on the opposite side of entrants (if too many advertisers on a platform result in too many ads being

³⁸ *Ibid.* Outside of Tiwana’s narrow focus on software platforms, it is also possible to find even more complex architectures with higher numbers of sides. For instance, Facebook can count end users, advertisers, business pages, sellers on the Facebook Marketplace and game developers for Facebook Gaming among others.

³⁹ *Ibid.*

⁴⁰ Michael G. Jacobides and Ioannis Lianos, "Regulating Platforms And Ecosystems: An Introduction", *Industrial And Corporate Change* 30, no. 5 (2021): 1131-1142, doi:10.1093/icc/dtab060.

⁴¹ Amrit Tiwana, *Platform Ecosystems: Aligning Architecture, Governance, And Strategy* (see note 25), p. 33.

⁴² Geoffrey G. Parker, Marshall W. Van Alstyne and Sangeet Paul Choudary, *Platform Revolution: How Networked Markets Are Transforming The Economy - And How To Make Them Work For You* (see note 19).

⁴³ *Ibid.*

⁴⁴ Amrit Tiwana, *Platform Ecosystems: Aligning Architecture, Governance, And Strategy* (see note 25), p. 33.

⁴⁵ *Ibid.*, p. 34

shown to end users, the latter will enjoy less spending time on it and will probably reduce their usage).

It is to be noted that the growth (or decline) in value due to network effects is not linear, but is known as *nonlinear* or *convex* growth⁴⁶ due to the growing impact of additional nodes as the network grows in size. As explained by Parker, Van Alstyne and Choudary with the example of telephone networks, “[w]ith two telephones, one connection is possible. With four telephones, six. With twelve, sixty-six. And with 100 telephones, there are 4,950 connections.”⁴⁷ The same is true for digital platforms, and it is one of the reasons why it is a rational choice for platforms to prioritise growth over short-term profits, often by subsidising one side (a common strategy to this end is zero pricing) in order to attract the other^{48,49,50} – a strategy which is also rewarded by capital markets in the form of easy access to funding for platforms with promising growth prospects.⁵¹ Such relevance of network size is also why quick and easy scalability is essential for platforms, as “networks that permit *frictionless entry* are able to grow organically almost without bound”.⁵²

Strong, positive network effects are also the common denominator of many explanations of why markets where platforms compete tend to be horizontally concentrated⁵³ and to “tip” towards winner-takes-all dynamics.⁵⁴ Network effects, however, are rarely considered sufficient to cause market tipping by themselves. Two features that tend to be commonly regarded as necessary for winner-takes-all dynamics to emerge are high multi-homing costs^{55,56} (albeit with different positions on whether they need to be present on both sides⁵⁷ or whether

⁴⁶ Geoffrey G. Parker, Marshall W. Van Alstyne and Sangeet Paul Choudary, *Platform Revolution: How Networked Markets Are Transforming The Economy - And How To Make Them Work For You* (see note 19).

⁴⁷ *Ibid.*

⁴⁸ *Ibid.*

⁴⁹ Lina M. Khan, "Amazon's Antitrust Paradox", *Yale Law Journal* 126, no. 3 (2017): 710-805.

⁵⁰ David P. McIntyre and Arati Srinivasan, "Networks, Platforms, And Strategy: Emerging Views And Next Steps" (see note 23).

⁵¹ Michael G. Jacobides and Ioannis Lianos, "Regulating Platforms And Ecosystems: An Introduction" (see note 40).

⁵² Geoffrey G. Parker, Marshall W. Van Alstyne and Sangeet Paul Choudary, *Platform Revolution: How Networked Markets Are Transforming The Economy - And How To Make Them Work For You* (see note 19) (emphasis in original).

⁵³ Michael G. Jacobides and Ioannis Lianos, "Regulating Platforms And Ecosystems: An Introduction" (see note 40).

⁵⁴ David P. McIntyre and Arati Srinivasan, "Networks, Platforms, And Strategy: Emerging Views And Next Steps" (see note 23).

⁵⁵ *Ibid.*

⁵⁶ Geoffrey G. Parker, Marshall W. Van Alstyne and Sangeet Paul Choudary, *Platform Revolution: How Networked Markets Are Transforming The Economy - And How To Make Them Work For You* (see note 19).

⁵⁷ Amrit Tiwana, *Platform Ecosystems: Aligning Architecture, Governance, And Strategy* (see note 25), p. 244.

one side is sufficient as well⁵⁸) and switching costs,⁵⁹ and low niche specialisation⁶⁰ due to low demand for differentiated features.^{61,62,63} Another factor that has been mentioned in the literature are economies of scale,^{64,65} which can be boosted by economies of scope and economies of learning.⁶⁶ At the same time, different subsets of researchers hold contrasting opinions on whether having a “superior” product or service is still determinant to achieve dominance, or if platforms displaying network effects as described above can still tip the market in their own favour despite their inferior offering.⁶⁷

The importance of network effects in order to achieve dominance for a platform has led to many studies on what strategies platform owners can implement to bring about the emergence of positive network effects (and, similarly, to avoid the emergence of negative ones). Some scholars have explored how firms can try to signal their future growth potential to influence user expectations and consequently their present adoption choices, while “strategists have focused on how platform providers can grow their installed base of users through strategies such as pricing, quality, and entry timing, [and] technology management scholars have largely focused their attention on issues of platform design and its subsequent impact on generating network effects”.⁶⁸ Such an attention given to the strategies and design choices of platform owners is based on the recognition that platforms are not mere conduits for interaction between participants, but rather platform owners are able to (and do so constantly) shape and influence which interactions happen on a given platform and how. Before turning our attention to platform governance, however, we need to introduce another concept – namely, the one of ecosystems.

⁵⁸ Thomas R. Eisenmann, Geoffrey Parker and Marshall W. Van Alstyne, "Strategies For Two Sided Markets", *Harvard Business Review* 84, no. 10 (2006): 92-101+149.

⁵⁹ Geoffrey G. Parker, Marshall W. Van Alstyne and Sangeet Paul Choudary, *Platform Revolution: How Networked Markets Are Transforming The Economy - And How To Make Them Work For You* (see note 19).

⁶⁰ *Ibid.*

⁶¹ David P. McIntyre and Arati Srinivasan, "Networks, Platforms, And Strategy: Emerging Views And Next Steps" (see note 23).

⁶² Amrit Tiwana, *Platform Ecosystems: Aligning Architecture, Governance, And Strategy* (see note 25), p. 244.

⁶³ Thomas R. Eisenmann, Geoffrey Parker and Marshall W. Van Alstyne, "Strategies For Two Sided Markets", *Harvard Business Review* 84, no. 10 (2006): 92-101+149.

⁶⁴ Geoffrey G. Parker, Marshall W. Van Alstyne and Sangeet Paul Choudary, *Platform Revolution: How Networked Markets Are Transforming The Economy - And How To Make Them Work For You* (see note 19).

⁶⁵ Michael G. Jacobides and Ioannis Lianos, "Regulating Platforms And Ecosystems: An Introduction" (see note 40).

⁶⁶ *Ibid.*

⁶⁷ David P. McIntyre and Arati Srinivasan, "Networks, Platforms, And Strategy: Emerging Views And Next Steps" (see note 23).

⁶⁸ *Ibid.*

While the exact meaning of the term “ecosystem” remains disputed in the literature,⁶⁹ Jacobides, Cennamo and Gawer identified three broad streams of research: a “business ecosystem” stream, an “innovation ecosystem” one and – the one relevant for this dissertation – a “platform ecosystem” one, in which

“the ecosystem comprises the platform’s sponsor plus all providers of complements that make the platform more valuable to consumers, [...] [taking] a “hub and spoke” form, with an array of peripheral firms connected to the central platform via shared or open-source technologies and/or technical standards.”⁷⁰

In such a conception, platform ecosystems are posited to emerge as a way to address the coordination questions that arise when dealing with certain kinds of complementarities⁷¹ which happen *at the level of roles* between different complements (“goods and services built on a platform that enhance the value of a core good to a network”)⁷² and the platform itself, without the need to resort to explicit inter-firm coordination due to the facilitating role played by technological modularity.⁷³ Modularity “allows interdependent components of a system to be produced by different producers, with limited coordination required”⁷⁴ and thus allows to maintain a significant degree of independence when addressing interdependencies that are not dealt with properly by markets. These characteristics are captured by Jacobides, Cennamo and Gawer’s second, more formalised definition:

“ecosystems are groups of firms that must deal with either unique or supermodular complementarities that are nongeneric, requiring the creation of a specific structure of relationships and alignment to create value.”⁷⁵

The result of these dynamics is an ecosystem where “final customers can choose among the components [...] [which] are bound together through some interdependencies”,⁷⁶ with

⁶⁹ Michael G. Jacobides and Ioannis Lianos, "Ecosystems And Competition Law In Theory And Practice", *Industrial And Corporate Change* 30, no. 5 (2021): 1199-1229, doi:10.1093/icc/dtab061.

⁷⁰ Michael G. Jacobides, Carmelo Cennamo and Annabelle Gawer, "Towards A Theory Of Ecosystems", *Strategic Management Journal* 39, no. 8 (2018): 2255-2276, doi:10.1002/smj.2904.

⁷¹ The complementarities in question are *unique complementarities* (summarised as “A doesn’t ‘function’ without B”) and *supermodular complementarities* (summarised as “more of A makes B more valuable”) which are also *nongeneric*, in the sense that that the complementary good or service is not standardised enough to make issues of economic organization irrelevant.

⁷² David P. McIntyre and Arati Srinivasan, "Networks, Platforms, And Strategy: Emerging Views And Next Steps" (see note 23).

⁷³ Michael G. Jacobides, Carmelo Cennamo and Annabelle Gawer, "Towards A Theory Of Ecosystems" (see note 70).

⁷⁴ *Ibid.*

⁷⁵ *Ibid.*

⁷⁶ *Ibid.*

platforms providing a common architecture⁷⁷ which underpins the interactions that define the ecosystem⁷⁸ by allowing for the modularity mentioned above through the technical specification of standards,⁷⁹ and with complementors generating complementary innovation and gaining access to the platform's customers.⁸⁰ When a platform manages to attract enough complementors (and the complements they provide) to lead to the emergence of an ecosystem, the platform will have the opportunity to benefit from *indirect network effects* as well – a second kind of network effects that arises “when the demand for one platform complement with strong network effects increases the demand for the platform itself”.⁸¹

In the mutually beneficial relationship that emerges between the actors forming the ecosystem, in fact, complementors increase the platform's value by committing their resources to the provision of complementary products which make the platform more attractive to end users;⁸² at the same time, however, some complementors can also compete with the services offered by the platform and still choose to participate in the ecosystem, as long as “their service is more valuable to consumers when it is offered as part of a set of complementary services than if they offered it separately on their own”.⁸³ The role of the platform, on the other end, is that of providing a “core product or service”⁸⁴ around which an offer of complements can develop, designing and adapting the platform's own architecture in order to grow an attractive and differentiated offer of complements,⁸⁵ as well as establishing a system of ecosystem governance and of conflict resolution among ecosystem participants.⁸⁶

⁷⁷ David P. McIntyre and Arati Srinivasan, "Networks, Platforms, And Strategy: Emerging Views And Next Steps" (see note 23).

⁷⁸ Michael G. Jacobides and Ioannis Lianos, "Ecosystems And Competition Law In Theory And Practice" (see note 69).

⁷⁹ David P. McIntyre and Arati Srinivasan, "Networks, Platforms, And Strategy: Emerging Views And Next Steps" (see note 23).

⁸⁰ Michael G. Jacobides, Carmelo Cennamo and Annabelle Gawer, "Towards A Theory Of Ecosystems" (see note 70).

⁸¹ Amrit Tiwana, *Platform Ecosystems: Aligning Architecture, Governance, And Strategy* (see note 25), p. 35. Indirect network effects have also been described by McIntyre and Srinivasan (see note 23) as network effects “such that the value of the core good to adopters is greater in tandem with the complement than without it”; this dissertation adopts Tiwana's stricter definition to avoid potential overlaps with the conceptually different notion of (positive) cross-side network effects.

⁸² David P. McIntyre and Arati Srinivasan, "Networks, Platforms, And Strategy: Emerging Views And Next Steps" (see note 23).

⁸³ Frederic Jenny, "Competition Law And Digital Ecosystems: Learning To Walk Before We Run", *Industrial And Corporate Change* 30, no. 5 (2021): 1143-1167, doi:10.1093/icc/dtab047.

⁸⁴ *Ibid.*

⁸⁵ David P. McIntyre and Arati Srinivasan, "Networks, Platforms, And Strategy: Emerging Views And Next Steps" (see note 23).

⁸⁶ Frederic Jenny, "Competition Law And Digital Ecosystems: Learning To Walk Before We Run" (see note 83).

Such a notion – the one that ecosystem governance matters, and that it is intertwined with platform governance, is relevant as “behavior in an ecosystem, and ultimately, its success, is affected by the rules of engagement and the nature of standards and interfaces”.⁸⁷

At the platform level, governance refers to the ways platforms “significantly affect and mediate individual behaviour” through “content policies, terms of service, algorithms, interfaces, and other socio-technical regimes”;⁸⁸ at the ecosystem level, it encompasses more broadly “the set of rules concerning who gets to participate in an ecosystem, how to divide the value, and how to resolve conflicts”.⁸⁹ While this distinction maintains the conceptual one between platforms and ecosystems (“if platforms are about technologies, ecosystems are about interorganizational relations”⁹⁰), *in practice* there are significant overlaps between the two, especially as the role of ecosystem orchestrator is generally performed by the platform owner while complementors usually represent (at least) one side of the platform. As formulated by Tiwana, “governance therefore flows from the platform owner who governs to app developers⁹¹ who are governed by the platform owner”.⁹²

The application of the concept of governance to platforms and ecosystems is in line with the move from earlier state-centric conceptions of governance towards broader “global governance” approaches which attempted to “better understand the power relationships and conflicts that emergent twentieth century (often corporate, private, or non-state) governance structures could create or enforce”.⁹³ And just as political science and international relations scholars defined their conceptions of “good governance”, similarly the “goal of good governance by a platform owner” has been defined as “to *shape and influence* its ecosystem, not to direct it”.⁹⁴ The orchestrating role of the platform owner is important as different groups of actors on multisided platforms can have diverging interests which can give birth to conflicts. Resolving these conflicts, together with making sure that participants create value for one

⁸⁷ Michael G. Jacobides, Carmelo Cennamo and Annabelle Gawer, "Towards A Theory Of Ecosystems" (see note 70).

⁸⁸ Robert Gorwa, "What Is Platform Governance?" (see note 18).

⁸⁹ Geoffrey G. Parker, Marshall W. Van Alstyne and Sangeet Paul Choudary, *Platform Revolution: How Networked Markets Are Transforming The Economy - And How To Make Them Work For You* (see note 19).

⁹⁰ Michael G. Jacobides and Ioannis Lianos, "Ecosystems And Competition Law In Theory And Practice" (see note 69).

⁹¹ In our case, to platform participants more in general.

⁹² Amrit Tiwana, *Platform Ecosystems: Aligning Architecture, Governance, And Strategy* (see note 25), p. 118.

⁹³ Robert Gorwa, "What Is Platform Governance?" (see note 18).

⁹⁴ Amrit Tiwana, *Platform Ecosystems: Aligning Architecture, Governance, And Strategy* (see note 25), p. 117 (emphasis in original).

another, are two major goals of governance rules.⁹⁵ In many cases, this means attempting to prevent or to deal with *market failures* – loosely described by Parker, Van Alstyne and Choudary as “situation[s] in which “good” interactions (fair and mutually satisfactory) fail to occur, or “bad” interactions do”.⁹⁶ Proper management of network effects, as to incentivise the emergence of positive ones and to minimise the impact of negative ones, also passes through governance mechanisms that try to affect which interactions occur and which ones do not.

An attempt to conceptualise such mechanisms has been made by Tiwana, who identified three different dimensions of platform governance - decision rights partitioning, the control portfolio and pricing policies⁹⁷ – which, with the necessary adjustments, can be generalised from their original focus on software platforms to be applied to platform ecosystems more in general.

Decision rights partitioning refers to how the “primary authority” for different kinds of decisions is allocated between the platform owner and app developers (in our case, this will also involve other complementors, business users and so on). Different categories of decisions include strategic and implementation decisions which can regard either the platform or the apps (complements/third party offerings/etc.).⁹⁸

The *control portfolio* refers to the set of control mechanisms available to the platform owner to “reward desirable behavior, punish bad behavior, and promulgate standards of behavior”⁹⁹ on the platform. One example of such mechanisms is *gatekeeping* – the usage of “predefined objective acceptance criteria for judging [...] not just for *what* is allowed in but also *who* is allowed in”.¹⁰⁰ While in Tiwana’s conception this refers strictly to platform owners’ *ex ante* screening of apps submitted for approval, an application of the concept to platform ecosystems more in general will also capture many curation strategies and openness decisions relative to user participation¹⁰¹ (think, for instance, of age requirements to sign up to a certain

⁹⁵ Geoffrey G. Parker, Marshall W. Van Alstyne and Sangeet Paul Choudary, *Platform Revolution: How Networked Markets Are Transforming The Economy - And How To Make Them Work For You* (see note 19).

⁹⁶ *Ibid.* While traditional economic definitions of market failures are based on the stricter concept of Pareto efficiency, such a looser conceptualisation based on interactions is probably more fitting for digital platforms where many of the interactions that are relevant to users do not have a clearly quantifiable, monetary value attached to them.

⁹⁷ Amrit Tiwana, *Platform Ecosystems: Aligning Architecture, Governance, And Strategy* (see note 25), pp. 118-119.

⁹⁸ *Ibid.*, p. 119-122.

⁹⁹ *Ibid.*, p. 122.

¹⁰⁰ *Ibid.*, p. 123 (emphasis in original).

¹⁰¹ Geoffrey G. Parker, Marshall W. Van Alstyne and Sangeet Paul Choudary, *Platform Revolution: How Networked Markets Are Transforming The Economy - And How To Make Them Work For You* (see note 19).

platform, or content moderation policies which regulate what kind of content is admissible on a certain platform). A major difference of this broader application of the term is that, for the sake of scalability, such kind of controls will often be applied *ex post* (and often they will be at least partially implemented algorithmically) rather than through *ex ante* submissions as in the case of apps. Another mechanism – *process control* – refers to “the degree to which a platform owner rewards or penalizes app developers based on the degree to which they follow prescribed development methods, rules, and procedures”,¹⁰² often for the sake of effective interoperability with the platform’s ecosystem. This can happen, for instance, through “platform development and testing tools, simulation environments, and developer toolkits provided by the platform owner”.¹⁰³ While such definition seems to be exclusively applicable to software complements, there can be examples of cases where forms of process control have been applied to other categories – an example is Etsy’s Handmade Policy, which requires items listed on the platform to be either physically made or designed by the seller¹⁰⁴ and, in the latter case, specifies that simple forms of customization are not considered as design (and are thus banned), imposes extra transparency requirements for designers relying on production partners and prohibits to use “a contractor or agent who outsources production”¹⁰⁵ as a production partner. The use of performance *metrics* to reward or penalise complementors for their achievement has been described by Tiwana as having been substituted by market competition in app stores, with “performance and survival of an app in the brutal marketplace serv[ing] as a powerful metric that eliminates the need for much metrics-based control”.¹⁰⁶ While this can be true for explicit rewards and penalties, it is also true that search result rankings in app stores, e-commerce platforms, aggregators, review platforms and so on often *do* rely on what Tiwana himself defined as *market-oriented metrics*, “such as unit sales, downloads, and end-user ratings”,¹⁰⁷ especially if users can rely on filters such as “best rated” or “most downloaded”. If we hold that prominent placement in rankings is able to influence end users’ propensity to click on a given search result,¹⁰⁸ we can see that this can constitute a subtler, less direct way for platform owners to reward the kind of complements or content which perform best in terms of the metrics taken into account by the platform’s algorithms. Lastly, *relational control* refers to

¹⁰² Amrit Tiwana, *Platform Ecosystems: Aligning Architecture, Governance, And Strategy* (see note 25), p. 124.

¹⁰³ *Ibid.*

¹⁰⁴ The only two exceptions to this rule are vintage items and craft supplies.

¹⁰⁵ "Handmade Policy - Our House Rules", Etsy, 2022, last accessed 8 August 2022, <https://www.etsy.com/uk/legal/handmade>.

¹⁰⁶ Amrit Tiwana, *Platform Ecosystems: Aligning Architecture, Governance, And Strategy* (see note 25), p. 124.

¹⁰⁷ *Ibid.*, p. 125.

¹⁰⁸ Frederic Jenny, "Competition Law And Digital Ecosystems: Learning To Walk Before We Run" (see note 83).

the platform owner's reliance on norms and values to influence developers' behaviour to achieve "an overarching collective goal for the platform ecosystem".¹⁰⁹ While Tiwana specifies how "relational control is widely used in open-source platforms"¹¹⁰ for what regard developers' behaviour, it is easy to see how social norms and shared identities can be similarly relevant for other categories of platform users as well (think especially of platforms targeting particular niches, such as Etsy or Society6's cater to artists and other creatives as sellers).

The third and last dimension identified by Tiwana refers to *pricing policies*. In his conception, they are meant to provide incentives for app developers through decision on whether to subsidise one of the platform sides and for how long, whether to price for access or for usage, revenue-splitting decisions and decisions on the price of individual apps.¹¹¹ The fact that most platforms – not only software platforms – face the choice of whether to subsidise one (or more)¹¹² side has been presented above in the discussion regarding network effects and the consequent prioritisation of growth over short-term profits. Subsidisation can take many forms – from zero pricing, to pricing at a loss¹¹³ or even to the provision of developer tools for free and so on. Similarly, decisions on how to split revenues between the platform owner and sellers (or other categories of value creators) will need to be taken for every kind of platform, and not only for software ones. More broadly, decisions about *monetisation strategies* – whether, for instance, to charge a transaction fee rather than to charge for access to a community of users, or again for enhanced access or enhanced curation¹¹⁴ – can be a powerful governance instrument which allows the platform owner to capture part of the value generated on the platform and to compete with other platforms. Recent work by Boudreau, Jeppesen and Miric, for example, has evidenced how "freemium" strategies (offering a free product or service alongside a paid, enhanced version) are a determinant in the way network effects can be used to amplify the advantage of market leaders.¹¹⁵

¹⁰⁹ Amrit Tiwana, *Platform Ecosystems: Aligning Architecture, Governance, And Strategy* (see note 25), p. 125.

¹¹⁰ *Ibid.*

¹¹¹ *Ibid.*, p. 126.

¹¹² Think, for example, of free mobile apps: end users are subsidised through zero pricing, app developers are subsidised because they do not have purchase or subscription revenues to share with the platform, but the platform's value still grows due to the larger choice of apps it can allow.

¹¹³ An iconic example is Amazon selling its Kindle reader with below-cost pricing in order to grow a sufficient user base to become the dominant platform for eBooks.

¹¹⁴ Geoffrey G. Parker, Marshall W. Van Alstyne and Sangeet Paul Choudary, *Platform Revolution: How Networked Markets Are Transforming The Economy - And How To Make Them Work For You* (see note 19).

¹¹⁵ Kevin J. Boudreau, Lars Bo Jeppesen and Milan Miric, "Competing On Freemium: Digital Competition With Network Effects", *Strategic Management Journal* 43, no. 7 (2021): 1374-1401, doi:10.1002/smj.3366.

Another important takeaway from the literature is that, in digital platforms, much of this governance happens through algorithms and automated decision making, through the deployment of “what are likely the largest, most global, and most widely used algorithmic systems in existence”.¹¹⁶ This leads our discussion to another important point, namely the fact that, besides the more or less explicit governance mechanisms discussed above, online behaviour is also constrained – and enabled – by the very structure and algorithms of the platform it takes place on.¹¹⁷ Tiwana takes a relatively neutral take on the issue, conceiving platform architecture as the instrument to manage and reduce a platform’s structural complexity, by enabling partitioning and systems integration through the right level of modularity.¹¹⁸ A completely different stance has been adopted by Lawrence Lessig, who summarised it in his iconic claim that “code is law”.¹¹⁹ Lessig’s conception of “regulation” is what results of the sum of four constraints – the law, social norms, the market, and architecture. In cyberspace (in our case, more specifically, in digital platforms), the function of architecture is performed by “code” – the “instructions embedded in the software or hardware”¹²⁰ which constrain and enable behaviour by determining which behaviour is possible or impossible not through explicit rule, but in the same way “a locked door is a physical constraint on the liberty of someone to enter some space.”¹²¹ Quoting Lessig, Kenney and Zysman raised the example of the controversy between Apple and the US Department of Justice as the latter obtained a warrant requiring Apple to unlock an encrypted a phone in a criminal case – a warrant that, to be implemented, would have required Apple to write new code to make decryption possible.¹²² Far from being a mere instrument to simplify the complexity of a platform as in Tiwana’s conceptualisation, such a view of “code” recognises the non-neutral role of platform architecture, as the way code is deployed for the purposes of platform governance is as much the result of deliberate (often self-interested) choice by platform owners¹²³ as it is the result of technical necessity. Quoting Lessig

“Architecture or protocols set these features, which are selected by code writers. They constrain some behavior by making other behavior possible or impossible. The code

¹¹⁶ Robert Gorwa, "What Is Platform Governance?" (see note 18).

¹¹⁷ Martin Kenney and John Zysman, "The Rise Of The Platform Economy" (see note 20).

¹¹⁸ Amrit Tiwana, *Platform Ecosystems: Aligning Architecture, Governance, And Strategy* (see note 25), pp. 73-116.

¹¹⁹ Lawrence Lessig, *Code: Version 2.0* (New York: Basic Books, 2006), p. 5.

¹²⁰ *Ibid.* p. 121.

¹²¹ *Ibid.*, p. 82.

¹²² Martin Kenney and John Zysman, "The Rise Of The Platform Economy" (see note 20).

¹²³ Lawrence Lessig, *Code: Version 2.0* (see note 119), p. 99.

embeds certain values or makes certain values impossible. In this sense, it too is regulation, just as the architectures of real-space codes are regulations.”¹²⁴

Architecture is also important because it enables the “backstage datawork”¹²⁵ which not only allows platforms to collect data, but also to standardise them enough to make the subsequent algorithmic computations which are crucial for platforms’ value propositions possible.¹²⁶ Alaimo and Kallinikos noted how this is not limited to the recording and collection of transaction data, data about “simple online behavior” or “prior facts”, but it also involves what they define as “encoding” - the creation of “actions which users are invited to perform and records the performance of such actions into distinct data fields”¹²⁷ by “carefully organizing user platform participation along specific activity corridors”.¹²⁸ The collected data then become “strategic assets”¹²⁹ on which the platform’s algorithms operate¹³⁰ in order to enable a series of data-driven advantages, which can range from improvements to the quality of the services thanks to the increased availability of data for the algorithms to the identification of potential complements to be offered, either directly or through third-party complementors, and even to the identification of other markets to be entered.¹³¹

Kenney and Zysman have commented that platform entrepreneurs have already started to recognise how architecture and “code” (but the same considerations can be broadened to platform governance in general) can be used to “remake existing law by creating new practices on their platforms that essentially establish new norms of behavior”.¹³² While this need not *necessarily* raise concerns, it can turn into an issue when platform owners manage to build “powerful positions as orchestrators”¹³³ which open the possibility of exploitative behaviour against their locked-in partners. Jacobides and Lianos, for instance, raised particular concerns towards those situations in which the platform exploits its central role in the ecosystem to compete directly with its complementors or business users on unfair terms, such as by refusing them access to the platform, discriminating in its own favour or using the information they

¹²⁴ *Ibid.*, p. 125.

¹²⁵ Cristina Alaimo and Jannis Kallinikos, "Computing The Everyday: Social Media As Data Platforms", *The Information Society* 33, no. 4 (2017): 175-191, doi:10.1080/01972243.2017.1318327.

¹²⁶ *Ibid.*

¹²⁷ *Ibid.*

¹²⁸ *Ibid.*

¹²⁹ Frederic Jenny, "Competition Law And Digital Ecosystems: Learning To Walk Before We Run" (see note 83).

¹³⁰ Martin Kenney and John Zysman, "The Rise Of The Platform Economy" (see note 20).

¹³¹ Frederic Jenny, "Competition Law And Digital Ecosystems: Learning To Walk Before We Run" (see note 83).

¹³² Martin Kenney and John Zysman, "The Rise Of The Platform Economy" (see note 20).

¹³³ Michael G. Jacobides and Ioannis Lianos, "Regulating Platforms And Ecosystems: An Introduction" (see note 40).

generate to “piggyback” on their success.¹³⁴ This kind of developments leads us directly to the next step of this review – namely, an overview of some regulatory questions of this kind that arise when dealing with digital platforms and platform ecosystems.

2.3. Platforms and regulatory issues

Much of the discussion around the regulation of platforms and ecosystems revolves around the argument that, so far, platform companies have been “profoundly underregulated”.¹³⁵ Coupled with the widely shared – albeit contested¹³⁶ – notion that digital market and ecosystems are “prone to tipping and lock-in for customers and complementors”¹³⁷ due to orchestrators’ nodality and capacity to exploit bottlenecks, this has resulted in a political consensus that their power should be curtailed and subject to scrutiny.¹³⁸ This has happened despite observations that regulatory authorities are not well equipped to tackle the challenges posed by a digital economy that has dissolved the boundaries which defined the concepts of “an industry” and “a market”,¹³⁹ leading to the mixed results of early reform attempts.¹⁴⁰ Gorwa has described this trend as a series of calls for a shift from the current dominant model of “self-governance” towards more “external governance” through the policy levers of “comprehensive privacy and data protection regulation, the repudiation of intermediary liability protections, and the use of competition and monopoly law.”¹⁴¹ These calls for governance have been justified by reference to a “heightened risk of a set of negative social costs being presented by platforms.”¹⁴² Owen has listed concerns regarding information reliability in the face of micro-targeted content aimed at engagement rather than quality information, the emergence of new social harms and divisions, including an increasingly polarized public sphere, and resulting concerns regarding the integrity of the democratic electoral process.¹⁴³ He has also noted the importance for citizens of content-related problems, including questions related to the

¹³⁴ *Ibid.*

¹³⁵ Robert Gorwa, "What Is Platform Governance?" (see note 18).

¹³⁶ Giuseppe Colangelo, "Evaluating The Case For Regulation Of Digital Platforms", *The Global Antitrust Institute Report On The Digital Economy* 26 (2020), doi:10.2139/ssrn.3733741. The author has both emphasised the difficulty of identifying potential market tipping situations in advance and the little empirical support for the proposition that digital platforms *in general* display winner-take-all dynamics.

¹³⁷ Michael G. Jacobides and Ioannis Lianos, "Ecosystems And Competition Law In Theory And Practice" (see note 69).

¹³⁸ Frederic Jenny, "Competition Law And Digital Ecosystems: Learning To Walk Before We Run" (see note 83).

¹³⁹ Michael G. Jacobides and Ioannis Lianos, "Regulating Platforms And Ecosystems: An Introduction" (see note 40).

¹⁴⁰ Robert Gorwa, "What Is Platform Governance?" (see note 18).

¹⁴¹ *Ibid.* Jacobides and Lianos (see note 69) have argued for self-regulation to be seen as a “valuable complement” to regulatory action, rather than as an alternative.

¹⁴² Taylor Owen, "The Case For Platform Governance", *CIGI Papers No. 231 — November 2019*, 2019.

¹⁴³ *Ibid.*

proliferation of illegal content, the protection of minors online, political interferences and the issue of automated “bot” accounts.¹⁴⁴ More interestingly for our discussion related to the DMA, Gorwa also raised the issue of the “exploitation of concentrated market power” by platforms enjoying “near-unassailable competitive advantages” inviting abuses of power, and consequently called for efforts to promote competition in the digital platform sector.¹⁴⁵ It is exactly to these competition questions raised by digital platforms and ecosystems that the rest of this section will be dedicated.

2.3.1. Competition law and digital platforms

Much of the criticism of current competition rules related to digital platforms revolves around the alleged lack of efficiency of antitrust investigations, which appear to be too long to properly address fast-paced digital markets through *ex post* enforcement.¹⁴⁶ The dominance of a few platforms, coupled with the “special vulnerabilities” created by their ubiquity,¹⁴⁷ is generally regarded as a problem,¹⁴⁸ but on both sides of the Atlantic US antitrust authorities and EU competition cases have failed to affect GAFAM’s mergers and behaviour respectively.¹⁴⁹ Critics of antitrust efficacy see this, together with a “brand-new type of market power”¹⁵⁰ stemming from the combination of a bottleneck position with rule-setting power in the ecosystem, as a reason to push for a regulatory approach towards digital platforms in the place of competition law enforcement.¹⁵¹ Beyond the allegations of enforcements failures or market failures, however, the deeper issue, is that – in the absence of an “ecosystem failure” equivalent of market failure theories¹⁵² – digital platforms and ecosystems call into questions the efficacy of some of the basic concepts and assumptions of competition law.

The fact that competition does not happen in a single product market anymore, but rather in – or between – ecosystems of complementary products, for instance, means that a key step of competition law proceedings – *market definition* – becomes more problematic as the current framework struggles to fully appreciate “the actual or likely effects of an undertaking’s

¹⁴⁴ *Ibid.*

¹⁴⁵ *Ibid.*

¹⁴⁶ Giuseppe Colangelo, "Evaluating The Case For Regulation Of Digital Platforms" (see note 137).

¹⁴⁷ Robert Gorwa, "What Is Platform Governance?" (see note 18).

¹⁴⁸ Michael G. Jacobides and Ioannis Lianos, "Regulating Platforms And Ecosystems: An Introduction" (see note 40).

¹⁴⁹ Frederic Jenny, "Competition Law And Digital Ecosystems: Learning To Walk Before We Run" (see note 83).

¹⁵⁰ Giuseppe Colangelo, "Evaluating The Case For Regulation Of Digital Platforms" (see note 137).

¹⁵¹ *Ibid.*

¹⁵² Michael G. Jacobides and Ioannis Lianos, "Ecosystems And Competition Law In Theory And Practice" (see note 69).

leveraging its dominance in one relevant market to related markets in the same ecosystem”¹⁵³ as it forces competition authorities to identify two separate relevant markets, assess a firm’s dominance in one of the two and then establish a causal connection with the second one where dominance is being leveraged.¹⁵⁴ Platforms’ multi-sidedness only complicate the issue further, as the platform’s individual sides may not represent “relevant markets” on their own as platform strategies take into account the interaction between users on different sides (e.g. network effects) rather than maximising profits on each side independently,¹⁵⁵ despite offering different services to different sides. These dynamics, together make the assessment of market power and, relatedly, findings of dominance equally challenging to be performed through the use of traditional competition law instruments,¹⁵⁶ as different products and services are offered to different sides where different dynamics take place.¹⁵⁷ Jacobides and Lianos, for instance, make the example of how an assessment based on market shares would fail to assess Apple as dominant in the smartphone sector; however, as customers tend to single-home by only owning a single smartphone, other players who want to access iPhone users will need to participate in Apple’s ecosystem – at Apple’s conditions.¹⁵⁸

Similar complexities arise when it comes to the identification of specific practices as abusive or anti-competitive. Standards based on consumer welfare face the issue of either failing to recognise exploitation of other sides of the platform (e.g., complementors)¹⁵⁹ or remaining caught up in difficult comparisons and trade-off decisions between the welfare of different groups when a practice has different effects on different sides.¹⁶⁰ Jacobides and Lianos note that this is particularly the case when “the end user in one market becomes the productive input in the other”.¹⁶¹ *Pricing*, which is of particular relevance as consumer welfare reductions are often measured in terms of increased prices, becomes more difficult to use both as an indicator of dominance and of anti-competitive behaviour, because prices are not established

¹⁵³ *Ibid.*

¹⁵⁴ *Ibid.*

¹⁵⁵ Frederic Jenny, "Competition Law And Digital Ecosystems: Learning To Walk Before We Run" (see note 83).

¹⁵⁶ Jenny makes the example of market shares and concentration.

¹⁵⁷ Frederic Jenny, "Competition Law And Digital Ecosystems: Learning To Walk Before We Run" (see note 83).

¹⁵⁸ Michael G. Jacobides and Ioannis Lianos, "Ecosystems And Competition Law In Theory And Practice" (see note 69). The authors note that a workaround to find dominance in a “traditional” assessment would require the (somewhat creative) definition of some “bottleneck aspect” of Apple’s ecosystem as a market of its own, separate from the rest of the ecosystem’s functionalities.

¹⁵⁹ Michael G. Jacobides and Ioannis Lianos, "Regulating Platforms And Ecosystems: An Introduction" (see note 40).

¹⁶⁰ Michael G. Jacobides and Ioannis Lianos, "Ecosystems And Competition Law In Theory And Practice" (see note 69).

¹⁶¹ *Ibid.*

independently for each side and because of the dynamics of cross-side subsidisation discussed above. Jenny makes the example of pricing below cost: while usually regarded as predatory pricing and thus as anti-competitive (as a firm slashes its profits to drive competitors out of the market, in order to later raise them again and enjoy monopoly rents), for platforms it can represent a rational profit-maximising strategy in order to attract paying customers on the other side through network effects.¹⁶² Zero pricing, in particular, has the added consequence of shifting competition away from price completely and towards quality and innovation – two dimensions that are harder to observe and quantify for competition law proceedings than increased prices,¹⁶³ despite anti-competitive behaviour may still cause harm to users despite them receiving free services.¹⁶⁴

Jacobides and Lianos¹⁶⁵ have claimed that many of these shortcomings are due to the fact that, as argued by Petit and Teece, much of the focus on platform competition has been placed on *static* competition for existing rents through (almost) perfect substitutability rather than *dynamic* competition for future rents through innovation.¹⁶⁶ This has led them to conclude that strong inter-ecosystem dynamic competition causes many of the rents enjoyed by Big Techs to be either Ricardian or Schumpeterian (and thus, in their view, compatible with long-term consumer welfare) rather than undesirable monopoly rents.¹⁶⁷ Jacobides and Lianos, instead, have questioned the extent to which different Big Tech firms with different business models actually compete directly rather than accommodating each other, making the example of Google paying Apple more than \$10 billion per year in exchange for Google being the default search engine for Apple software.¹⁶⁸ Assessing the extent of actual inter-ecosystem competition is important for Jacobides and Lianos because, in their conception, lack of inter-ecosystem competition allows orchestrators to entrench their dominance and distort intra-platform competition.¹⁶⁹

¹⁶² Frederic Jenny, "Competition Law And Digital Ecosystems: Learning To Walk Before We Run" (see note 83).

¹⁶³ *Ibid.*

¹⁶⁴ Robert Gorwa, "What Is Platform Governance?" (see note 18).

¹⁶⁵ Michael G. Jacobides and Ioannis Lianos, "Regulating Platforms And Ecosystems: An Introduction" (see note 40).

¹⁶⁶ Nicolas Petit and David J. Teece, "Innovating Big Tech Firms And Competition Policy: Favoring Dynamic Over Static Competition", *Industrial And Corporate Change* 30, no. 5 (2021): 1168-1198, doi:10.1093/icc/dtab049.

¹⁶⁷ *Ibid.*

¹⁶⁸ Michael G. Jacobides and Ioannis Lianos, "Ecosystems And Competition Law In Theory And Practice" (see note 69).

¹⁶⁹ *Ibid.*

This is particularly problematic for vertical intra-ecosystem competition,¹⁷⁰ which “falls in a blind spot of existing competition law yet is at the core of contemporary concerns with platform orchestrators”.¹⁷¹ Many of the concerns commonly raised towards orchestrators’ anti-competitive conduct, in fact, tend to be tied to unfair surplus sharing terms as policies that once supported complementors are changed to become more exploitative once the ecosystem has grown and gathered pace.¹⁷² A key point of contention, in this regard, is represented by those cases in which platforms play a “dual role”, by both acting as marketplace operators through their regulatory and gatekeeping position and competing with their own business users or complementors.¹⁷³ The concern, here, is that orchestrators may exploit their position to either deny access to competitors or to discriminate in favour of their own products and services, or again exploit non-public information about independent business users’ successful products and services to develop their own competing offerings.¹⁷⁴ While these practices have sparked a series of antitrust investigations, in particular by the European Commission, “premised on either the assumption that Big Techs must ensure rivals a level playing field or a sort of platform neutrality regime which represents a version of the essential facility doctrine”,¹⁷⁵ Colangelo has questioned the possibility to sanction this kind of conduct under existing competition law “because dominant players are not subject to a duty to keep their rivals in the market”.¹⁷⁶ The fact that many of the self-preferencing practices which are object of concern rely on end users’ behavioural biases (in particular, status quo biases)¹⁷⁷ complicates the matter further, as this introduces trade-offs between end user convenience and potentially “better” offerings into the considerations for any “consumer welfare” test.^{178,179}

Another issue that is often raised regards the alleged competitive advantage that incumbents enjoy due to the large amount of data that they manage to accumulate “as a by-

¹⁷⁰ Defined as competition that “refers to value captured through joint collaboration (between ecosystem participants, including the orchestrator)”.

¹⁷¹ Michael G. Jacobides and Ioannis Lianos, "Ecosystems And Competition Law In Theory And Practice" (see note 69).

¹⁷² *Ibid.*

¹⁷³ Giuseppe Colangelo, "Evaluating The Case For Regulation Of Digital Platforms" (see note 137).

¹⁷⁴ Frederic Jenny, "Competition Law And Digital Ecosystems: Learning To Walk Before We Run" (see note 83). For a list of examples of such practices, also see Giuseppe Colangelo, "Evaluating The Case For Regulation Of Digital Platforms" (see note 137).

¹⁷⁵ Giuseppe Colangelo, "Evaluating The Case For Regulation Of Digital Platforms" (see note 137).

¹⁷⁶ *Ibid.* Colangelo was taking issue in particular with the Commission’s findings in *Google Shopping*, in which Google’s prominent placement of its own comparison shopping service in search result was regarded as an abuse of dominance as Google leveraged its dominance in the search engines market.

¹⁷⁷ Frederic Jenny, "Competition Law And Digital Ecosystems: Learning To Walk Before We Run" (see note 83).

¹⁷⁸ *Ibid.*

¹⁷⁹ Michael G. Jacobides and Ioannis Lianos, "Regulating Platforms And Ecosystems: An Introduction" (see note 40).

product of the normal functioning of a platform”¹⁸⁰ and which they can leverage to provide better targeting and customization and to deploy AI and A/B testing to further improve the quality of their services.¹⁸¹ The twofold concern, here is, on one hand, with the “sizeable power asymmetry” that, in the absence of a “proper regime of property rights on personal data”, has characterized the contractual relations between platforms and users;¹⁸² and, on the other hand, with the competition dynamics that emerge as incumbents try to entrench their data advantages by both denying access to data to (potential) competitors¹⁸³ and engaging in strategic mergers and acquisitions in order to gain access to the target firm’s data “giving the merged firms an advantage which could not be duplicated by competitors”.¹⁸⁴ While existing competition law has attempted to deal with the issue of data access through the essential facilities doctrine, the emergence of calls for regulatory intervention through data portability and data sharing rules reflects the idea that this is too limited of an option to ensure the degree of access to data necessary to encourage competition.¹⁸⁵ Regarding mergers, Jenny has noted how competition authorities may be worried both about the creation of un-replicable advantages and the degradation of the privacy protection by the merged firms.¹⁸⁶ The potential competitive pressure, both in terms of customers and of data acquisition, posed by the acquired firms is also at the centre of concerns regarding large platforms’ “killer acquisitions” – which Owen claims that, in some market segments, may represent “the only viable path for a new business”¹⁸⁷ – of firms with the potential to compete with either one of their offerings or with their ecosystem.¹⁸⁸ Two commonly discussed examples are Facebook’s acquisitions of Instagram, which Mark Zuckerberg acknowledged to have been driven by Instagram’s threat to “leave behind” Facebook,¹⁸⁹ and of WhatsApp, which Petit and Teece claim could have “[kept] developing

¹⁸⁰ Giuseppe Colangelo, "Evaluating The Case For Regulation Of Digital Platforms" (see note 137).

¹⁸¹ Michael G. Jacobides and Ioannis Lianos, "Ecosystems And Competition Law In Theory And Practice" (see note 69).

¹⁸² Michael G. Jacobides and Ioannis Lianos, "Regulating Platforms And Ecosystems: An Introduction" (see note 40).

¹⁸³ Jacobides and Lianos (see note 69) make the example of Apple exploiting users’ privacy concerns to reduce data access to participants in its ecosystem through the iOS 14 update.

¹⁸⁴ Frederic Jenny, "Competition Law And Digital Ecosystems: Learning To Walk Before We Run" (see note 83). Additional concerns regarding the use of data generated by independent business users to tilt the playing field of competition have also been discussed above.

¹⁸⁵ Giuseppe Colangelo, "Evaluating The Case For Regulation Of Digital Platforms" (see note 137).

¹⁸⁶ Frederic Jenny, "Competition Law And Digital Ecosystems: Learning To Walk Before We Run" (see note 83). The author makes the example of the Commission fining Facebook for its 2016 update to the WhatsApp terms of service and privacy policy, which included “the possibility of linking WhatsApp users’ phone numbers with Facebook users’ identities” despite having stated the contrary at the time of the Facebook/WhatsApp merger decisions.

¹⁸⁷ Taylor Owen, "The Case For Platform Governance" (see note 142).

¹⁸⁸ Frederic Jenny, "Competition Law And Digital Ecosystems: Learning To Walk Before We Run" (see note 83).

¹⁸⁹ *Ibid.*

itself as a strong Facebook competitor” due to Facebook’s “observable low capabilities” in messaging.¹⁹⁰ The assessment of the competitiveness of M&As by large platforms, however, is complicated by the difficulty of establishing clear counterfactuals,¹⁹¹ as well as by contrasting views on whether they effectively encourage or discourage innovation in sectors where the likelihood of being acquired by a Big Tech is high¹⁹² and trade-offs between the positive effect of an acquired innovation reaching consumers and the elimination of a potential competitor.¹⁹³

2.3.2. The DMA between competition and regulation

As a regulation on “contestable and fair markets in the digital sector”, one could expect the DMA to be a piece of legislation that addresses the gaps mentioned above, allowing competition law to properly function when applied to platform ecosystems as well. The emerging academic literature, however, is quite cautious when facing the question of whether to categorise the DMA as a regulation implementing competition law or rather as a piece of sectorial regulation. It must be noted that, in real-world practice, the two categories can and do overlap: Jacobides and Lianos have noted a recent tendency to employ new *ex ante* regulation to “bridge the gap” of competition law when it comes to ecosystem competition.¹⁹⁴ Larouche and de Streel similarly argue that, despite being sometimes conceived as alternatives by both academics and practitioners, EU law involves a well-established “complementary relationship” between sector-specific regulation and general competition law, which should be conceived “as components of a coherent whole, i.e. an EU body of economic regulation”.¹⁹⁵ In such a relationship, sectorial regulation is relied upon to deal with “structural competition problems” that general competition law is ill-equipped to deal with effectively.¹⁹⁶ Colangelo described

¹⁹⁰ Nicolas Petit and David J. Teece, "Innovating Big Tech Firms And Competition Policy: Favoring Dynamic Over Static Competition" (see note 166).

¹⁹¹ Frederic Jenny, "Competition Law And Digital Ecosystems: Learning To Walk Before We Run" (see note 83).

¹⁹² Nicolas Petit and David J. Teece, "Innovating Big Tech Firms And Competition Policy: Favoring Dynamic Over Static Competition" (see note 166).

¹⁹³ Frederic Jenny, "Competition Law And Digital Ecosystems: Learning To Walk Before We Run" (see note 83).

¹⁹⁴ Michael G. Jacobides and Ioannis Lianos, "Ecosystems And Competition Law In Theory And Practice" (see note 69).

¹⁹⁵ Alexandre de Streel and Pierre Larouche, "The European Digital Markets Act: A Revolution Grounded On Traditions", *Journal Of European Competition Law & Practice* 12, no. 7 (2021): 542–560, doi:10.1093/jeclap/lpab066. The authors suggest that “the relationship between the proposed DMA and competition law is a mirror image of the relationship between the Article 114 and Article 106(3) directives 30 years ago”, on which the CJEU confirmed the possibility of the parallel use of the two legal bases.

¹⁹⁶ *Ibid.* The authors made the examples of sector-specific regulation of the financial and telecommunications sectors.

how the EU Commission Experts' report¹⁹⁷ seems to advocate for a similar approach towards digital platforms, as on one hand it concedes the competition law approach is suitable to the current state of the emerging platform economy, and on the other hand it recognises the potential need for a regulatory regime in the longer run and in particular it calls for the introduction of "a special responsibility" for platforms to ensure "fair, unbiased, and pro-users" competition.¹⁹⁸ Jenny has echoed this view by describing the DMA as a proposed "complement to competition law enforcement",¹⁹⁹ especially in light of the fact that the scope of the Regulation does not tackle all "competition issues raised by gatekeepers in the digital sector in general", but only "the sub-set of these problems raised by a small number of very large platforms".²⁰⁰ Jacobides and Lianos similarly stated that "*ex ante* regulation [the DMA] does not obviate the need for *ex post* intervention [by antitrust enforcement]",²⁰¹ and that the two can complement each other instead – especially when it comes to preventing market tipping and user lock-in.²⁰² Again, Chirico has claimed that the DMA pursues a "different but complementary objective to competition law" rather than introducing new competition rules.²⁰³

Even the authors advancing these arguments, however, noted how it is not easy to collocate the DMA on either side of this conceptual overlap. As described below, it does not fit easily neither in the category of sector-specific regulation nor in the one of general regulatory frameworks.²⁰⁴ At the same time, however, the logic of some of the propositions behind the DMA is difficult to follow from a "pure" competition law standpoint,²⁰⁵ despite one of its goals being exactly to "to ensure sufficient intraecosystem competition".²⁰⁶

Part of the discussion relative to the DMA's closeness to competition law revolves around the regulation's dual objectives of "contestability" and "fairness". Petit, while criticising the vagueness of the meaning of the two terms, draws a similarity between the two

¹⁹⁷ European Commission, Directorate-General for Competition, Yves-Alexandre de Montjoye, Heike Schweitzer, Jacques Crémer, "Competition policy for the digital era", (Publications Office, 2019), doi:10.2763/407537.

¹⁹⁸ Giuseppe Colangelo, "Evaluating The Case For Regulation Of Digital Platforms" (see note 137).

¹⁹⁹ Frederic Jenny, "Competition Law And Digital Ecosystems: Learning To Walk Before We Run" (see note 83).

²⁰⁰ *Ibid.*

²⁰¹ Michael G. Jacobides and Ioannis Lianos, "Ecosystems And Competition Law In Theory And Practice" (see note 69).

²⁰² *Ibid.*

²⁰³ Filomena Chirico, "Digital Markets Act: A Regulatory Perspective", *Journal Of European Competition Law & Practice* 12, no. 7 (2021): 493-499, doi:10.1093/jeclap/lpab058.

²⁰⁴ Alexandre de Stree and Pierre Larouche, "The European Digital Markets Act: A Revolution Grounded On Traditions" (see note 195).

²⁰⁵ Frederic Jenny, "Competition Law And Digital Ecosystems: Learning To Walk Before We Run" (see note 83).

²⁰⁶ Michael G. Jacobides and Ioannis Lianos, "Ecosystems And Competition Law In Theory And Practice" (see note 69).

objectives and the “two theories of abusive behavior in EU competition law, one based on fairness, the other on freedom to compete”,²⁰⁷ and claims that, between the two, the DMA is primarily concerned with the latter to the point of being “essentially a sector specific competition law”.²⁰⁸ In his view, the provisions on fairness are secondary and only in line with the European tradition of tackling the manifestations of market power and not only its sources – in a sense, they revitalised Article 102 TFEU prohibitions on exploitative “misuse of powers” that authorities have allegedly been reticent to apply.²⁰⁹ Larouche and de Streel also envision a close relationship between the two objectives and Article 102 TFEU, by drawing a parallel between “contestability” and its general objective “to keep markets as competitive as possible”²¹⁰ and between “fairness” and its specific concern with the exploitation of market power.²¹¹ Colomo, instead, sees the two objectives as “independent from the protection of the competitive process as understood under Articles 101 and 102 TFEU”.²¹² He claims that the DMA is not only concerned with the exploitation of market power, but also with its strengthening and leveraging to adjacent markets irrespective of its (anti)competitive effects, following an expansive vision of fairness that goes beyond the competitive process to “neutralise the competitive advantages enjoyed by gatekeepers”²¹³ and to rebalance competition in favour of third parties so that they can compete with gatekeepers “with similar forces”.²¹⁴ The claim that the DMA’s objectives go beyond the prevention of anti-competitive behaviour is supported by the fact that the DMA’s setup forbids a series of practices without the prohibition being contingent on a finding that competition has been (or is likely to be) restricted in a relevant market,^{215,216} dispensing the Commission from having to deal with case-to-case assessments²¹⁷ and having to “overstretch” the doctrine²¹⁸ to fit the behaviour of platforms into the existing categories of competition law – with all the complications already discussed above. Under this light, the DMA tries to “[run] ahead of competition law

²⁰⁷ Nicolas Petit, "The Proposed Digital Markets Act (DMA): A Legal And Policy Review", *Journal Of European Competition Law & Practice* 12, no. 7 (2021): 529-541, doi:10.1093/jeclap/lpab062.

²⁰⁸ *Ibid.*

²⁰⁹ *Ibid.*

²¹⁰ Alexandre de Streel and Pierre Larouche, "The European Digital Markets Act: A Revolution Grounded On Traditions" (see note 195).

²¹¹ *Ibid.*

²¹² Pablo Ibáñez Colomo, "The Draft Digital Markets Act: A Legal And Institutional Analysis", *Journal Of European Competition Law & Practice* 12, no. 7 (2021): 561-575, doi:10.1093/jeclap/lpab065.

²¹³ *Ibid.*

²¹⁴ *Ibid.*

²¹⁵ Nicolas Petit, "The Proposed Digital Markets Act (DMA): A Legal And Policy Review" (see note 207).

²¹⁶ Pablo Ibáñez Colomo, "The Draft Digital Markets Act: A Legal And Institutional Analysis" (see note 212).

²¹⁷ *Ibid.*

²¹⁸ Nicolas Petit, "The Proposed Digital Markets Act (DMA): A Legal And Policy Review" (see note 207).

development [in order to] pre-emptively lay down the law”²¹⁹ instead of codifying the experience of past individual cases as done, for example, through block exemptions.²²⁰

Besides noting superficial similarities in nature with US law “common carrier” regulation,²²¹ instead, attempts to conceive the DMA as an example of sectorial regulation generally do so by comparing it to the EU telecoms regime.^{222,223} However, even here important differences remain. Instead of dispensing the Commission from engaging with competition law concepts, the telecoms regime is built around competition concepts²²⁴ such as “relevant market” definitions²²⁵ or the need to identify risks of competitive foreclosures to justify intervention, and its purpose is to bring the market to a situation where it can be subject to competition law alone.²²⁶ The DMA, on the other hand, replaces the “relevant market” approach with the designation of the status of gatekeeper as the threshold for intervention²²⁷ (but not for the assessment of individual courses of conduct), and it foresees a more permanent overlap with competition rules as it does not provide for its own rolling back.²²⁸ These arguments, together with the DMA’s lack of a sectorial focus and centralised, rather than Member State, enforcement, put into question the possibility to categorise the DMA as sectorial regulation.²²⁹ This has led some academics to consider the DMA as something coming close to a general “per se regime”²³⁰ or an “ad hoc regulatory regime”;²³¹ at the same time, however, Larouche and de Streeel have raised doubts regarding the possibility to assimilate the DMA to such general regulatory frameworks such as consumer protection legislation as these tend to impose symmetrical obligations to pursue specific policy goals different than competition law

²¹⁹ Alexandre de Streeel and Pierre Larouche, "The European Digital Markets Act: A Revolution Grounded On Traditions" (see note 195).

²²⁰ *Ibid.*

²²¹ Nicolas Petit, "The Proposed Digital Markets Act (DMA): A Legal And Policy Review" (see note 207).

²²² Michael G. Jacobides and Ioannis Lianos, "Ecosystems And Competition Law In Theory And Practice" (see note 69).

²²³ Pablo Ibáñez Colomo, "The Draft Digital Markets Act: A Legal And Institutional Analysis" (see note 212).

²²⁴ *Ibid.*

²²⁵ Michael G. Jacobides and Ioannis Lianos, "Ecosystems And Competition Law In Theory And Practice" (see note 69).

²²⁶ Pablo Ibáñez Colomo, "The Draft Digital Markets Act: A Legal And Institutional Analysis" (see note 212).

²²⁷ Michael G. Jacobides and Ioannis Lianos, "Ecosystems And Competition Law In Theory And Practice" (see note 69).

²²⁸ Pablo Ibáñez Colomo, "The Draft Digital Markets Act: A Legal And Institutional Analysis" (see note 212).

²²⁹ Alexandre de Streeel and Pierre Larouche, "The European Digital Markets Act: A Revolution Grounded On Traditions" (see note 195). Regarding the lack of a sectorial focus, the authors are sceptical of the possibility to consider “core platform services” as a sector of their own.

²³⁰ Nicolas Petit, "The Proposed Digital Markets Act (DMA): A Legal And Policy Review" (see note 207).

²³¹ Pablo Ibáñez Colomo, "The Draft Digital Markets Act: A Legal And Institutional Analysis" (see note 212).

while the DMA imposes asymmetric obligations to pursue policy goals which remain close to the ones of competition law.²³²

This mix of the purposes and features of regulation (both sectorial and general) and competition law “blur[s] the line between regulation and antitrust”,²³³ and because of this it has been used by Colangelo to ascribe the DMA to the category of the “more regulatory” approach to competition law, which aims at “integrating the antitrust toolkit with *ex ante* prohibitions to prevent anti-competitive practices by dominant platforms”.²³⁴ Despite this overlapping relationship, however, Larouche and de Streel describe that the Commission has been “at pains to put distance between its proposal and EU competition law”²³⁵ through its choice to base the proposal on Article 114 TFEU²³⁶ rather than as an implementation of competition rules, to the point of defining the regulation as a “lost child of competition law”.²³⁷ They find the justification put forward in the Impact Assessment that competition law is ill-equipped to deal with two market failures that characterise “gatekeeper markets” (entry barriers and economic dependency of business users) in the absence of dominance or anti-competitive agreements to be unconvincing, as they argue that the Commission has not had particular issues in finding dominance in the gatekeepers’ core market and to link it to leveraging and abusive practices through competition law proceedings.²³⁸ On the contrary, they find that the real reason that “makes it seem as if competition law is always running behind market developments”²³⁹ is the lengthy duration of competition law proceedings, which drain enforcement resources and could become unsustainable in the longer run.²⁴⁰ In this view, the DMA appears to build on the logic that traditional competition law enforcement is inefficient and “leaves too many instances of

²³² Alexandre de Streel and Pierre Larouche, "The European Digital Markets Act: A Revolution Grounded On Traditions" (see note 195).

²³³ Giuseppe Colangelo, "Evaluating The Case For Regulation Of Digital Platforms" (see note 137).

²³⁴ *Ibid.*

²³⁵ Alexandre de Streel and Pierre Larouche, "The European Digital Markets Act: A Revolution Grounded On Traditions" (see note 195).

²³⁶ Art. 144 TFEU provides the legal competence to harmonise national legislation to remove barriers to the internal market. This choice of legal base has been criticized in Alfonso Lamadrid de Pablo and Nieves Bayón Fernández, "Why The Proposed DMA Might Be Illegal Under Article 114 TFEU, And How To Fix It", *Journal Of European Competition Law & Practice* 12, no. 7 (2021): 576-589, doi:10.1093/jeclap/lpab059.

²³⁷ Alexandre de Streel and Pierre Larouche, "The European Digital Markets Act: A Revolution Grounded On Traditions" (see note 195).

²³⁸ *Ibid.* At the same time, though, it must be noted that such an approach of defining different elements of a platform ecosystem as separate markets has been criticised in the literature, for instance by Jacobides and Lianos (see note 69). Criticisms based on the lack of legal certainty have also been raised against some of the reasonings provided to back findings of abuse of dominance; see, for instance, Elias Deutscher, "Google Shopping And The Quest For A Legal Test For Self-Preferencing Under Article 102 TFEU", *European Papers* 6, no. 3 (2021): 1345-1361, doi:10.15166/2499-8249/528.

²³⁹ *Ibid.*

²⁴⁰ *Ibid.* Colomo (see note 212) makes the example of the seven-year *Google Shopping* investigation as an example of the burden posed by competition law assessments when it comes to vertically integrated platforms.

bad behavior under-deterred”²⁴¹ in the digital sector, and so it aims at “curing an enforcement failure rather than a market failure.”²⁴² It does so by moving away from an economics-based approach to antitrust enforcement by integrating the Commission’s existing powers, which are considered insufficient, with a set of prohibitions on a list of practices that either it has examined in the past or that have been discussed in antitrust circles “without having to define relevant markets, to assess market dominance or to bear the burden of establishing that these practices are capable of restricting competition.”²⁴³

²⁴¹ Nicolas Petit, "The Proposed Digital Markets Act (DMA): A Legal And Policy Review" (see note 207).

²⁴² Giuseppe Colangelo, "Evaluating The Case For Regulation Of Digital Platforms" (see note 137).

²⁴³ Frederic Jenny, "Competition Law And Digital Ecosystems: Learning To Walk Before We Run" (see note 83).

3. Research design

This dissertation will focus on assessing to what extent the obligations on gatekeepers introduced by the DMA bridge the gap between competition law and platform ecosystems evidenced in the literature review, by focusing in particular on intra-platform competition instances where the platform owner competes with its own business users. This particular focus has been selected in the light of the competition concerns raised in the literature review, which placed competition for the value produced by an ecosystem in a “blind spot” of competition law,²⁴⁴ as well as because several of the examples of competition cases, complaints and unfair practices reported by the Commission in the Impact Assessment Report²⁴⁵ which accompanied the DMA proposal, as well as in its Support Study,²⁴⁶ are concerned with this specific kind of competition.

The research design for this dissertation involves the individual analysis of 11 obligations introduced by the DMA, which have been singled out for their more direct connection with gatekeepers’ practices distorting competition with their own complementors and business users. For each of these obligations, the analysis will aim at (a) describing the content of the obligation at hand, (b) identifying the purpose behind the introduction of that specific obligation (i.e., the kind of practice, gatekeeper behaviour, market failure *et similia* that the Commission was concerned with when introducing it), (c) tracing the origin of changes to the Commission proposal, in those cases where the final text of the obligation differs markedly from the original one, and (d) identifying key stakeholders’ support for and/or concerns with the obligation under examination.

The description of the content of each obligation will rely mostly on the text of the obligation itself as reported in the DMA, and it will be integrated with the relevant DMA recitals when necessary to clarify some aspect of the obligation (e.g., the scope of application). The identification of the purpose pursued by the Commission will be closely related to the description of the content, and it will mostly make use of the supporting documents that accompanied the DMA proposal (in particular, the IAR and the IAR Support Study Annexes), as well as past and ongoing competition cases mentioned by the Commission in its analysis

²⁴⁴ Michael G. Jacobides and Ioannis Lianos, "Ecosystems And Competition Law In Theory And Practice" (see note 69).

²⁴⁵ See note 30.

²⁴⁶ European Commission, Directorate-General for Communications Networks, Content and Technology, Joe Sunderland et al., "Digital Markets Act : Impact Assessment Support Study : Annexes" (Publications Office, 2020), doi:10.2759/230813 (hereafter: IAR Support Study Annexes).

which may have constituted an informal “precedent” codified by the DMA. Changes to the Commission’s proposal will be traced through the consultation of archival documents relative to the legislative process which are available through the websites of the Commission, of the European Parliament and of the Council (see Table 1 below); the 4 column-tables reporting the Commission’s text, the EP mandate, the Council mandate and the compromise text for each part of the DMA in preparation for the trilogues will be particularly precious resources to this end. For reasons of brevity, only substantive changes will be traced (i.e., no changes in wording which maintain the same meaning as the original text).

Document date	Document	Document type	Available on
17/12/2020	Commission DMA proposal	Commission proposal	Consilium.europa.eu; Europarl.europa.eu
17/12/2020	Impact Assessment Report	Commission IAR	Consilium.europa.eu; Europarl.europa.eu
17/12/2020	Impact Assessment Report Annexes	Commission IAR	Consilium.europa.eu; Europarl.europa.eu
17/05/2021	Progress Report	Report	Consilium.europa.eu
31/08/2021	EESC opinion	Opinion	Consilium.europa.eu
23/11/2021	Statement by LUX / Statement by GER	National position	Consilium.europa.eu
24/11/2021	Statement by AUS	National position	Consilium.europa.eu
06/01/2022	4-column table for 1 st trilogue (11/01/2022)	4-column table	Consilium.europa.eu
25/02/2022	4-column table for 3 rd trilogue (01/03/2022)	4-column table	Europarl.europa.eu
18/03/2022	4-column table for 4 th trilogue (24/03/2022)	4-column table	Consilium.europa.eu
18/03/2022	Presidency proposal for renewed trilogue mandate	Presidency proposal	Consilium.europa.eu
03/05/2022	Analysis of final compromise text	Final text	Consilium.europa.eu
11/07/2022	Final DMA text (not signed)	Final text	Consilium.europa.eu
14/09/2022	Final DMA text (signed)	Final text	Consilium.europa.eu

Table 1. Archival documents consulted to trace the evolution of the obligations (not including documents quoted elsewhere in footnotes in this dissertation). A full table of all the documents available can be found in Appendix I.

Lastly, the source material for the identification of stakeholders' support and concerns will consist in the stakeholders' submissions to the Open Public Consultation that preceded the DMA proposal and of their feedbacks that followed the publication of the DMA proposal, both of which are available on dedicated pages through the Commission's websites. Given the large amount of data available, relevant submissions from the OPC will be identified by searching for specific keywords relevant for the obligation(s) at hand in the full Excel dataset,²⁴⁷ and then integrating these results with the positions papers attached to the submission by the respondents identified when relevant. As "Big Techs" are almost certain to be designated as gatekeepers with the entry into force of the DMA, attachments by GAFAM will always be searched for the relevant keywords for the sake of completeness.

The archival work described above has also been complemented by first-hand observations gathered during a three-months work-from-home internship at the Italian Permanent Representation to the EU,²⁴⁸ which made it possible to follow part of the developments which led to the adoption of the DMA before the relative documents were made available to the public and to have access to the concerns and observations raised confidentially by some stakeholders, including two prospective gatekeepers.

The results of the analysis performed on obligations will then be the object of a critical analysis in Chapter 5, where common themes in the purposes of the obligations and in the concerns that they raised will be identified and where those specific concerns which will emerge as particularly relevant will be discussed individually. The discussion in Chapter 6 will then attempt to bring the findings of the previous chapters in touch with the competition concerns which have been individuated in the literature review, in order to draw some conclusions on the extent to which the DMA has bridged the aforementioned gap between competition law and digital platforms and ecosystems.

Regarding the choice of the obligations to analyse, out of the 22 obligations introduced by the DMA listed in Table 2 on the next page, 11 of them have been identified as more closely related to intra-platform competition and they have been grouped along the following lines:

²⁴⁷ The full dataset is available at "Digital Services Act – Deepening The Internal Market And Clarifying Responsibilities For Digital Services", Better Regulation Portal, last accessed 23 September 2022, https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12417-Digital-Services-Act-deepening-the-Internal-Market-and-clarifying-responsibilities-for-digital-services/public-consultation_en. A list of the keywords used can be found in Appendix II. An acknowledged limitation of this approach consists in the limited ability to find matches from submissions in languages other than English.

²⁴⁸ Dating from 10/01/2022 to 08/04/2022.

- Article 5(3), 5(4) and 5(5) DMA target parity clauses and similar practices which shield the gatekeeper from competitive pressures from their business users through the use of other sales channels than the gatekeepers' services;
- Article 6(3), 6(4), 6(5), 6(6) and 6(7) DMA target self-preferencing practices that could allow gatekeepers to exploit their position to favour their own products and services;
- Article 6(2) and 6(10) DMA address gatekeepers' use of allegedly unfair practices involving business users' data;
- Article 6(12) DMA targets the imposition of unfair or discriminatory access conditions.

After a brief premise on how the obligations are organised in the broader structure of the DMA, we will now turn our attention to the analysis of these four groups of provisions.

Article no.	Obligation
5(2)	Ban on processing end user data from third party services and on cross-using and combining end user data from different services
5(3)	Ban on MFN clauses (prevent offering at different conditions off-platform)
5(4)	Ban on prohibiting business users from communicating off-platform offers to end users
5(5)	Duty to allow end users to access to app content, subscriptions and features acquired off-platform
5(6)	Ban on preventing users from raising non-compliance issues with authorities
5(7)	Ban on requirement to use, offer or interoperate with certain gatekeeper services
5(8)	Ban on requirement to register with other core platform services
5(9)	Duty to provide advertisers with access to information on ad prices, remuneration and fees (including remuneration for publishers)
5(10)	Duty to provide publishers with access to information on ad prices, remuneration and fees (including prices for advertisers)
6(2)	Ban on using non-public business user data to compete with them
6(3)	Duty to allow un-installation of any app and to allow to change defaults on a gatekeeper's OS
6(4)	Duty to allow and enable installation of third-party apps and app stores
6(5)	Ban on self-preferencing in ranking, indexing and crawling
6(6)	Ban on restrictions on switching between apps and services
6(7)	Duty to provide interoperability with the same hardware and software features available to gatekeeper hardware and services
6(8)	Duty to provide access to ad performance data and measuring tools to advertisers and publishers
6(9)	Duty to provide end users with effective data portability and with the necessary tools to this end
6(10)	Duty to provide business users with real-time access to data generated by their activity (including by their end users)
6(11)	Duty to provide third party search engines with FRAND access to ranking, click, query and view data
6(12)	Duty to apply FRAND access conditions to gatekeepers' app stores, search engines and social networking services
6(13)	Ban on making termination conditions of a core platform service disproportionate
7	Duty to provide interoperability of number-independent interpersonal communications services

Table 2. List of DMA obligations.

4. Obligations

4.1. How the obligations work: specification, suspension and exemption

A first premise that needs to be made before discussing individual obligations regards the difference between Articles 5, 6 and 7 DMA, which contain the bulk of the obligations imposed by the DMA on gatekeepers.²⁴⁹ The reason behind the separation of the various obligations between different articles stands in the distinction between “self-executing” obligations (Art. 5) and obligations which can be subject to further specification (Art. 6 and 7) under Article 8 DMA, despite such difference has been blurred during the legislative process.²⁵⁰ Article 8 DMA, in fact, allows the Commission – under an advisory “comitology” procedure²⁵¹ – to “adopt an implementing act, specifying the measures that the gatekeeper concerned is to implement in order to effectively comply with the obligations laid down in Articles 6 and 7”²⁵² within three months since the opening of proceedings,²⁵³ either on its own initiative upon request of the gatekeeper in order to determine if the measures it has implemented (or is about to implement) are effective to achieve compliance with the obligation at hand.²⁵⁴ Specification is available for all three articles (and thus for the totality of the obligations) when the proceedings are opened for circumvention pursuant to Article 13.²⁵⁵ Further options for “regulatory dialogue” also allow the Commission to temporarily suspend specific obligations on individual gatekeepers if they manage to demonstrate that “compliance with a specific obligation [...] would endanger, due to exceptional circumstances beyond the gatekeeper’s control, the economic viability of its operation in the Union [...] limited to the

²⁴⁹ These articles are complemented by two transparency obligations, namely (i) to notify the Commission of any intended concentration involving entities providing CPS or other digital services, or which enable the collection of data (Art. 14 DMA) and (ii) to submit to the Commission “an independently audited description” of any consumer profiling techniques applied by the gatekeeper to or across its CPS (Art. 15 DMA).

²⁵⁰ In the original Commission proposal, the distinction was only between two articles (5 and 6) rather than three, and Art. 8 DMA (which used to be Art. 7) did not foresee *any* possibility of further specification for Article 5 obligations. As described hereafter, this possibility has been amended in during the legislative process, albeit only under limited circumstances, making the difference between the three articles less clear-cut than before.

²⁵¹ Art. 8(2) and Art. 50(2) DMA, read in conjunction. For reference regarding such kind of procedures, see Regulation (EU) No 182/2011, especially Art. 4.

²⁵² Art. 8(2) DMA.

²⁵³ *Ibid.*, Art. 8(5).

²⁵⁴ *Ibid.*, Art. 8(3).

²⁵⁵ *Ibid.*, Art. 8(2). Art. 13 DMA treats as “circumvention” both the subdivision of core platform services through any means in order to escape the quantitative thresholds for designation as a gatekeeper and (more relevant for Art. 8 proceedings) any behaviour of the gatekeeper “that undermines effective compliance with the obligations of Articles 5, 6 and 7”, including through the use of “behavioural techniques or interface design”. It also includes actions that hinder the capability of business users to obtain consent to treat personal data and that degrade the quality of the service offered to users who avail themselves of the rights granted to them by the DMA.

extent and the duration necessary to address such threat to its viability”²⁵⁶ or to exempt a gatekeeper from a specific obligation on either public health or public security grounds.²⁵⁷

4.2. How the obligations were identified

The Impact Assessment Report that accompanied the Commission proposal sheds some light on how the (original)²⁵⁸ list of obligations was identified. The obligations are associated to “key unfair practices” which are applicable to the core platform services listed in Article 2(2),²⁵⁹ and were identified following four principles: (a) there is “sufficient experience with [their] harmful effects”²⁶⁰ which (b) points to the “egregious nature” of such practices; (c) the obligations stemming from such practices are directly applicable “to the extent possible”²⁶¹ and the unfair practices can be “identified in a clear and unambiguous manner”²⁶² for the sake of legal certainty. These criteria were used to identify a set of practices which are, according to the IAR, “well-documented and can be relatively easily circumscribed in ex ante regulation”,²⁶³ while other practices were examined but rejected due to concerns with proportionality “at this point in time”.²⁶⁴ The IAR also includes a list of evidence for each of the practices included in the original DMA proposal. Such evidence is not only based on past antitrust decisions, both by the Commission and by other competition authorities, but it also includes evidence from complaints, investigations, studies and reports on the digital sector, as well as other IAs and regulations.²⁶⁵ This additional layer of evidence is important to legitimize the inclusion of some practices in the list, as the IAR explicitly admits that

“For some of the practices listed below there is no decision or judgment confirming its effects on the market.”²⁶⁶

The IAR also provides three categories in which the practices in question can be grouped – namely, “(i) unfair data driven practices, (ii) unfair self-preferencing, and (iii) unfair access

²⁵⁶ *Ibid.*, Art. 9(1).

²⁵⁷ *Ibid.*, Art. 10.

²⁵⁸ Some obligations were added or expanded by the co-legislators during the legislative process.

²⁵⁹ The IAR admits explicitly that “in some cases, the practices at stake target specific core platform services”.

²⁶⁰ IAR, p. 50.

²⁶¹ Thus leaving open the possibility for further specification mentioned above.

²⁶² IAR, p. 51.

²⁶³ *Ibid.*

²⁶⁴ Art. 19 DMA, in fact, provides for the possibility for the Commission to launch a market investigation to either examine whether the list of CPS should be expanded, or to detect unfair practices which are not covered by the obligations in the DMA. In the latter case, the Commission will either be able to expand the existing obligations pursuant to Art. 12 DMA or to propose an amendment to the Regulation (see Recitals 69 and 77 DMA).

²⁶⁵ IAR, p. 51.

²⁶⁶ *Ibid.*

conditions”.²⁶⁷ Unfortunately, however, the IAR does not specify which practices (and their corresponding obligations) belong to which category explicitly (and, while for several of the practices such correspondence is quite straightforward, there remain some other ones for which categorization is more ambiguous), so that the use of similar names as these categories in the following pages should not be taken as following an “official” categorization of the obligations by the Commission.

4.3. Parity clauses

Article 5(3) DMA prohibits the practice commonly called “Most-Favoured Nation (MFN) clauses”, consisting in the use of (often contractual) obligations to prevent business users from offering their products and services through other sales channels at different prices and conditions than the ones offered through the gatekeeper’s intermediation services.²⁶⁸ The Commission is concerned with this kind of clauses as, when examining them in *E-book MFNs and related matters (Amazon)*,²⁶⁹ it has held that they could hinder competition against the dominant platform by reducing incentives for the development of innovative offerings, the differentiation of offerings and business models and the expansion in the relevant market.²⁷⁰ Besides their impact on inter-ecosystem competition, this kind of clauses enables further distortion of intra-ecosystem competition by foreclosing business users’ ability to work around unfair terms and conditions imposed by a gatekeeper through alternative distribution channels.

A position similar to the one of the Commission has also been taken by some European NCAs, which have also tried to challenge other MFN clauses under Article 101 TFEU.²⁷¹ Interestingly, Article 5(3) prohibits not only wide MFN clauses (applying to prices and conditions on any other sales channel), but also narrow ones (applying only to the seller’s own website). This represents a break with the legal tradition of certain Member States, as while several of them had already outlawed wide parity clauses, only a few - France, Austria, Italy and Belgium – foresaw a general ban on all kinds of MFN clauses in their legal systems, including narrow ones,²⁷² but can be interpreted as an effort to avoid regulatory fragmentation by ensuring that all situations involving MFN clauses fall under the DMA’s scope of

²⁶⁷ *Ibid.*, p. 50.

²⁶⁸ Art. 5(3) DMA.

²⁶⁹ *E-book MFNs and related matters (Amazon)*, Case AT.40153.

²⁷⁰ Summary of Commission Decision of 4 May 2017 relating to a proceeding under Article 102 of the Treaty on the Functioning of the European Union and Article 54 of the EEA Agreement (Case AT.40153 — E-Book MFNS and related matters) (notified under document C(2017) 2876), *OJ C 264/7*, 2017.

²⁷¹ IAR Support Study, p. 43.

²⁷² IAR, p. 25 and 53.

application. This was not the Commission’s original position, as the original DMA proposal only covered wide MFN clauses and it was expanded to cover narrow ones as well on the EP’s proposal – also reconciling different national priorities between being able to apply stricter national regulations, on one hand,²⁷³ and ensuring “maximum harmonisation” by preventing the introduction of new flexibility for national legislators on the other one.²⁷⁴ Several stakeholders and sectoral business associations, in particular in the hotel, book and audiovisual sectors, also expressed their concerns with gatekeepers’ use of MFN clauses in their OPC submissions and supported the introduction of restrictions on their use, with one stakeholder in particular comparing MFN clauses to price setting practices which are usually banned under competition law. At the same time, the EESC has noted that this provision might have needed some further specification regarding the “conditions” other than price encompassed by it.²⁷⁵

Article 5(4) and 5(5) DMA are better read together, as they target similar practices and used to constitute a single paragraph in the original Commission proposal before being separated under both co-legislators’ proposal. Article 5(4) prohibits the use by gatekeepers of “anti-steering” provisions which prevent business users from communicating and promoting to end users the possibility to access offers outside of the gatekeeper’s CPS, and/or from effectively concluding contracts with those end users outside the platform,²⁷⁶ while Article 5(5) ensures that the rights granted to users by Article 5(4) are not nullified by gatekeepers by preventing access and use “content, subscriptions, features or other items”²⁷⁷ acquired through other channels by end users, by mandating that such access and use be made possible through business users’ software applications regardless of whether the content has been acquired through the gatekeeper’s distribution channel or not. While the text of these two obligations refers to all gatekeepers and CPS in general, much of the evidence of this practice mentioned in the IAR and in its Support Study regards app stores in particular, making it reasonable to consider them (and Article 5(4) DMA in particular) as a generalisation of an obligation originating from experience in that specific sector. The key example of this practice (and, likely, the one behind this obligation) is Apple prohibiting iOS app developers from informing end users of the possibility to purchase digital content and subscriptions through other (often cheaper) sources than the App Store, e.g. from the developer’s own website.²⁷⁸ This makes it

²⁷³ Statement by the Austrian delegation (see Table 1).

²⁷⁴ Statement by the Luxembourg delegation (see Table 1).

²⁷⁵ Opinion of the European Economic and Social Committee (EESC) (see Table 1).

²⁷⁶ Art. 5(4) DMA.

²⁷⁷ Art. 5(5) DMA.

²⁷⁸ IAR Support Study Annexes, p. 272.

more difficult for third-party developers to avoid the 30% commission fee mandated by the use of Apple's proprietary In-App Purchase (IAP) system – a fee that has been accused of being significantly higher than it would be under competition from other app stores in the US pending lawsuit *Epic Games v Apple*.²⁷⁹ This practice has led several app providers to opt out entirely from IAP on iOS in order to avoid Apple's commission fee,²⁸⁰ but this option is likely to be realistic only for large apps with an already-established user base that knows about the possibility to purchase subscriptions externally. It is thus not surprising to find that Spotify's OPC submission expresses support for the limitation of such practice, as Spotify's complaints were the ones behind the Commission's preliminary investigation that led to the opening of the ongoing *Apple App Store Practices (music streaming)* case,²⁸¹ in which the Commission took the preliminary view that

“Apple's rules distort competition in the market for music streaming services by raising the costs of competing music streaming app developers.²⁸² This in turn leads to higher prices for consumers for their in-app music subscriptions on iOS devices. In addition, Apple becomes the intermediary for all IAP transactions and takes over the billing relationship, as well as related communications for competitors.”²⁸³

At the same time, the generalisation of this obligation outside of app stores has been more controversial in terms of stakeholder responses, especially (but not exclusively) in the hospitality sector. While business users subject to this practice have raised similar complaints to the ones raised towards MFN clauses, especially when done by OTAs, platforms which could be designated as gatekeepers and be subject to the obligation were less convinced of the possibility to adapt the obligation to other business models smoothly. Booking.com, for instance, expressed its concern that Article 5(4) will allow hotels to use the platform to acquire customers, but then bypass it to offer them lower rates if they cancel the (refundable) booking

²⁷⁹ Complaint for Injunctive Relief of 13 August 2020, *Epic Games, Inc. vs. Apple Inc.*, para. 4, 97 and 102, <https://cdn2.unrealengine.com/apple-complaint-734589783.pdf>.

²⁸⁰ The IAR Support Study Annexes, p. 267 make the example of Netflix, Spotify and Amazon's Kindle.

²⁸¹ European Commission, "Antitrust: Commission Opens Investigations Into Apple's App Store Rules", 2020, https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1073. Besides *Apple App Store Practices (music streaming)*, Case AT.40437, the investigation also led to the parallel opening of *Apple App Store Practices (e-books/audiobooks)*, Case AT.40652 and *Apple App Store Practices*, Case AT.40716.

²⁸² As presented in the IAR Support Study Annexes, the price increase for Spotify subscriptions resulting from Apple's practices was particularly relevant as it enabled the Apple Music streaming service to compete on price against it without having to pay the IAP commission fee, and thus offering to end users the same (cheaper) price that Spotify used to be able to offer before being forced to raise prices. For the DMA's take on gatekeepers' use of pricing conditions to favour their own products and services, also see the discussion on Art. 6(12) DMA below.

²⁸³ European Commission, "Antitrust: Commission Sends Statement Of Objections To Apple On App Store Rules For Music Streaming Providers", 2021, https://ec.europa.eu/commission/presscorner/detail/en/ip_21_2061.

on the platform and conclude a separate transaction directly with the hotel.²⁸⁴ This would deprive the platform of its remuneration for the customer acquisition services provided, they argue, if “end users acquired” is not interpreted as only applying after such remuneration has happened.

4.4. Self-preferencing

Article 6(5) DMA contains a prohibition on self-preferencing in “ranking and related indexing and crawling”,²⁸⁵ activities which will now need to be performed under “transparent, fair and non-discriminatory conditions”.²⁸⁶ While the landmark case here is *Google Shopping*,²⁸⁷ which has already been described in the previous chapter, the DMA recitals specify that this obligation covers not only search engines, but also rankings provided by other CPS such as software application stores, video sharing platforms, social networks, online marketplaces or virtual assistants.²⁸⁸ The inclusion of “and related indexing and crawling” is a more narrow compromise compared to the EP’s original request to include “and other settings” more broadly. Both the Parliament and the Council managed to achieve their objectives, instead, regarding the inclusion of a transparency condition and the exclusion of offerings by third parties owned by the same undertaking as the platform respectively.

Regarding the practice being targeted, the IAR Support Study reports in particular a detailed case study on Amazon’s use of self-preferencing to steer consumers either towards its own products through prominent positions in listings and through the use of Amazon Vine²⁸⁹ and Alexa,²⁹⁰ or towards sellers that make use of Amazon’s logistics and delivery services by artificially inflating their performance metrics so that they are favoured both in rankings and in their chances to win the assignation of the Buy Box.^{291,292} The importance of self-preferencing in rankings for gatekeepers to leverage their dominant position to favour their own products and services is considered to stem from end users’ tendency to direct most of

²⁸⁴ Booking.com’s feedback to the DMA proposal.

²⁸⁵ Art. 6(5) DMA.

²⁸⁶ *Ibid.*

²⁸⁷ *Google Search (Shopping)*, Case AT.39740.

²⁸⁸ Recital 51 DMA.

²⁸⁹ Amazon Vine is an in-house program which invites “trusted reviewers” to leave reviews on Amazon in exchange for free products. For more information, see “Amazon Vine”, Amazon.Com, last accessed 27 August 2022, <https://www.amazon.com/vine/about>.

²⁹⁰ According to the IAR Support Study (p. 312), Amazon’s virtual assistant Alexa only offers the possibility to buy Amazon Basics products when asked products offered by Amazon’s in-house brand. Recital 52 DMA explicitly includes instances where only one offer is communicated to the user into the scope of Art. 6(5) DMA.

²⁹¹ The latter example in particular is currently being investigated by the Commission in *Amazon Buy Box*, Case AT.40703.

²⁹² IAR Support Study, pp. 288-314.

their traffic towards the first page of results more in general, and towards the top results of such first page more in particular.²⁹³ Gatekeepers' self-preferencing in rankings was a common concern in the OPC, with business users complaining both about prominent placing of a platform's own offerings and of de-ranking (or de-listing altogether) of competing offerings by third parties. One submission by HOTREC even mentioned allegations about retaliatory de-listings and de-rankings of hospitality establishments for refusing to follow certain practices (e.g., offering lower prices on their websites after the ban of narrow MFN clauses in France) or in order to force establishments to drop ongoing legal actions, while the review platform Yelp claimed that its exit from the European market was "forced" by Google's demotion of the links to its websites in search result. The prospective GAFAM gatekeepers, despite not to engage in self-preferencing, questioned the need for further regulatory intervention beyond the ranking transparency requirements provided for in the P2B Regulation²⁹⁴ and objected that self-preferencing stemming from vertical integration can have pro-competitive effects in terms of consumer welfare as well, so as to require a deeper analysis of the circumstances rather than a blanket prohibition.²⁹⁵ In particular, Apple also raised some concerns related to broad non-discrimination obligations, claiming that it would be prevented from promoting business model diversity, improving discoverability on the App Store and protecting end users from harmful content and practices, while Google underlined both the need for case-by-case analysis to assess the harmful nature of self-preferencing (coupled with updated guidance to this end) and how excessively broad interpretations of "transparency" requiring the disclosure of the technical details behind search results ranking would enable manipulation of the results by ill-intentioned third parties²⁹⁶ and free-riding on investments in proprietary technologies.

The obligations contained in Article 6(3), 6(4), 6(6) and 6(7) DMA cover a set of interrelated self-preferencing practices which regard software applications. Article 6(3) DMA mandates gatekeepers to "allow and technically enable" the un-installation of software applications from its OS (initially pre-installed applications only, but then extended to "any" application on the Council's request), with the only exception being for applications "essential for the functioning of the operating system or of the device and which cannot technically be

²⁹³ *Ibid.*, p. 308-309. The IAR Support Study's figures for search engines report that 95% of traffic goes to websites in the first page of search results, with 67% of clicks going to the top five listings.

²⁹⁴ See in particular the attachments to Google's, Apple's and Amazon's OPC submissions.

²⁹⁵ See attachments to Google's and Apple's OPC submissions.

²⁹⁶ Google made the example of "spammers [trying] to game Google by paying each other for links" after its 1999 disclosure of how PageRank uses links received by a website from other websites as a proxy for page relevance.

offered on a standalone basis by third-parties”.²⁹⁷ This was integrated during the legislative process by a complementary obligation to allow end users to change default settings on the OS, virtual assistant or web browser when these steer end users towards gatekeepers’ products and services.²⁹⁸ In the specific case of search engines, virtual assistants or web browsers the EP obtained that this includes prompting end users to explicitly set the default upon first use “from a list of the main available service providers”,²⁹⁹ albeit the original intention was to obtain this extension for all CPS in general. What the EP did not obtain, instead, was to move this (dual) obligation to Article 5 DMA. Article 6(3) DMA targets the use of pre-installation and default settings in order to establish and maintain dominance thanks to the “sticky” consumer biases in favour of pre-installed software and default services, but without going all the way to prohibiting these practices altogether. With the exception of search engines, virtual assistants and web browsers, for which default-setting was *de facto* banned by requiring end users to make an explicit choice of defaults through a generalisation of Microsoft’s commitments in *Microsoft (Tying)*³⁰⁰ and of Google’s compliance measures with the *Google Android* antitrust decision³⁰¹, the DMA took a more light-touch approach aimed at unlocking at least some degree of customer choice by preventing gatekeepers from making their own software impossible to un-install and their steering default settings impossible to change. Stakeholders’ submissions mentioned default browsers and search engines particularly often and seemed to be supportive of such an approach, with even Google recognising how platform users may “have an interest in being presented with a choice of frequently used services”³⁰² in line with its competitors Microsoft’s and Mozilla’s support for rules that allow users to try competing search services and respect consumer selections.

Article 6(4) DMA is complementary to the previous one as it introduces an obligation for gatekeepers to allow third party software applications and software application stores to be installed and effectively on the gatekeeper’s OS, to be accessed through other means than the gatekeeper’s CPS and to prompt end users to set these applications and stores as their default. Exceptions to the obligation allow gatekeepers, subject to a justification duty, to adopt “strictly necessary and proportionate” measures to protect the OS and hardware integrity, as well as to

²⁹⁷ Art. 6(3) DMA.

²⁹⁸ *Ibid.*

²⁹⁹ *Ibid.*

³⁰⁰ *Microsoft (Tying)*, Case AT.39530.

³⁰¹ *Google Android*, Case AT.40099. The IAR Support Study Annexes, p. 232, make explicit reference to the un-installable nature of Google’s pre-installed apps in the acquisition of a competitive advantage over competitors.

³⁰² Google’s OPC submission.

enable end users to “effectively protect security”.³⁰³ The latter case represents an expansion of the exceptions by both co-legislators (even though the EP originally wanted to cover the purpose of end user data protection as well), and differs from the integrity exception as, under the security one, gatekeepers are “prevented from implementing such measures as a default setting or as pre-installation”.³⁰⁴ Another extension during the legislative process is the possibility for third party software and app stores to prompt users to set them as defaults, which was obtained by the EP as a compromise from its original position (which would have required the gatekeeper to directly ask for such change in defaults rather than just enabling it).

Based on the examples mentioned in the IAR and in the case studies for its Support Study, this obligation was probably inspired by how Apple is able to leverage the bottleneck in the iOS ecosystem which is represented by the App Store, by excluding the possibility to install third-party applications through methods other than the App Store (so-called side-loading),³⁰⁵ as the other mobile (Android) and computer (Windows, Linux and MacOS) operating systems likely to be covered by the DMA all allow side-loading already. This allegedly enables the App Store to escape competition both on price³⁰⁶ and on quality³⁰⁷ by other application stores, which in turns enables a host of potentially unfair and/or exclusionary practices towards business users – in particular when these are also Apple’s competitors in downstream markets. Two examples of such practices can be the exclusion of Microsoft’s game subscription service xCloud mentioned below³⁰⁸ (xCloud competes with Apple Arcade) and the allegedly retaliatory delays lamented by Spotify for the approval of new versions of its app as a reaction to Spotify’s attempts to direct users towards its website to offer them cheaper subscriptions (Spotify competes, including on price, with Apple Music).³⁰⁹ Both these practices would be made pointless if Microsoft and Spotify were able to bypass the App Store and seek access to iOS devices either through direct installation or through other app stores.

Looking at stakeholders’ submissions to the OPC, several of them voiced concerns related to gatekeepers excluding certain categories of third-party apps and technologies from

³⁰³ Art. 6(4) DMA.

³⁰⁴ *Ibid.*, Recital 50.

³⁰⁵ IAR Support Study Annexes, pp. 285-286.

³⁰⁶ See Epic’s complaints about how the App Store commission fees would be lower under normal competitive conditions mentioned above.

³⁰⁷ As mentioned in the IAR Support Study Annexes, p. 268, the App Store guidelines also specify which types of applications and technologies are allowed in the App Store. Competing stores might try to differentiate themselves by deploying different content curation strategies and thus offering a different selection of third-party apps.

³⁰⁸ See note 371.

³⁰⁹ See note 282.

their OSs which compete with their first-party services, often by raising barriers to interoperability and by denying access to OS and hardware functions necessary for their functioning.³¹⁰ Some of them specifically made the examples of Apple banning certain categories of apps³¹¹ and of Google making it difficult (but not outright impossible) to install stores other than the Play Store on Android, including by prohibiting pre-installation of competing stores and apps through contractual tying practices. Among prospective gatekeepers, instead, it is not surprising that Apple has been particularly vocal about its concerns with the prospect of being forced to allow side-loaded apps and third-party stores into the iOS ecosystem, both in its OPC submission and in its submission to a call for views by the Irish Department of Enterprise, Trade and Employment in response to the DMA and DSA proposals.³¹² On one hand, it has (questionably) rebutted arguments regarding the App Store's bottleneck position, citing competition in the smartphone market, competition to attract developers with other platforms and developers' possibility to reach customers directly through the open Internet and through web-apps. On the other one, it has argued that the end user security, safety and privacy achieved through product integration constitute critical competitive differentiators of the user experience offered by the App Store's curated environment. Apple's argument is that undermining its ability to review and approve apps by mandating side-loading "would simple (*sic*) reduce consumer choice, privacy and security"³¹³ by taking away consumers' ability to choose between curated and non-curated app distribution platforms.³¹⁴

Article 6(6) DMA prohibits gatekeepers from restricting "technically or otherwise" end users' ability to

"switch between, and subscribe to, different software applications and services that are accessed using the core platform services of the gatekeeper, including as regards the choice of Internet access services for end users."³¹⁵

³¹⁰ On this issue, see the discussion on Art. 6(7) DMA below.

³¹¹ One example made was web browsers not based on Apple's browser engine WebKit.

³¹² "Call For Views In Response To The European Commission's Digital Services Act And Digital Markets Act Proposals", Enterprise.Gov.Ie, last accessed 8 September 2022, <https://enterprise.gov.ie/en/consultations/call-for-views-digital-services-act-digital-markets-act-proposals.html>.

³¹³ Apple, "Apple Initial Comments On The Proposed Digital Markets Acts", 2020, <https://enterprise.gov.ie/en/consultations/consultations-files/apple-dsa-submission.pdf>.

³¹⁴ This argument is questionable as well – end users who value the closed nature of the iOS ecosystem because of safety and privacy concerns could simply choose not to install side-loaded apps or third-party stores and continue relying on the App Store only, as Art. 6(4) DMA does not also mandate gatekeepers to allow all third-party apps on their stores.

³¹⁵ Art. 6(6) DMA.

This obligation was not significantly altered during the legislative process, with only the words “or otherwise” being added on both co-legislators’ proposal. The general purpose of Article 6(6) DMA seems to be the protection of end users’ ability to freely choose between applications and services from artificial barriers raised by gatekeepers,³¹⁶ thus allowing users to effectively benefit from the increased range of possible choices granted to them under Article 6(3) and 6(4) as discussed above. The reference in the IAR to the Furman Report, which is equally concerned with the ability to switch and to multi-home,³¹⁷ seems to indicate that this obligation aims at promoting both opportunities – rather than just switching – for end users.

The explicit reference to “the choice of Internet access services for end users”, on the other hand, is more ambiguous because of the lack of a definition of what is meant exactly by “Internet access services”. A narrower interpretation would equate this term with “Internet access providers”, as originally provided for in the text of the Commission proposal, and it would be supported both by the wording of Recital 54 DMA (in particular, by its emphasis on “undertakings providing internet access service”)³¹⁸ and by the example mentioned in the IAR, namely

“an app store reserving for some providers with whom it has partnership agreements certain functionalities, thus preventing consumer switching to a different internet access provider.”³¹⁹

Under such an interpretation, this reference would be limited in scope to restrictive practices such as the ones brought up by the sectoral organisation MVNO Europe in its OPC submission. MVNO Europe mentioned how “some major handset manufacturers [...] deliberately limit the openness and interoperability of their operating system with certain mobile operators”, including by complicating – and sometimes outright precluding – the setup of certain functionalities offered by mobile virtual network operators (MVNOs) in order to bring them to sign carrier partner agreements, placing new entrants in the telecommunications and digital services markets at a competitive disadvantage. A broader interpretation of this portion of Article 6(6) DMA, on the other hand, could categorise all services employed by an end user to gain access to the Internet – most notably, web browsers and search engines – as “Internet

³¹⁶ *Ibid.*, Recital 53.

³¹⁷ “Unlocking Digital Competition. Report of the Digital Competition Expert Panel”, HM Treasury, 2019, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/785547/unlocking_digital_competition_furman_review_web.pdf, pp. 35-37. The ability to switch to alternative providers is presented in particular as a necessary condition to guarantee effective competition when consumers single-home (e.g., because services by different providers are not differentiated enough).

³¹⁸ Recital 54 DMA.

³¹⁹ IAR, p. 58

access services”. Such an interpretation would be less adherent to the IAR, but more in line with some of the concerns raised in the case studies relative to “device neutrality” in the IAR Support Study.³²⁰ In this case, this second part of the obligation would also amount to a specification that practices such as preventing end users from switching a browser’s default search engine, or from switching to a different browser altogether, are explicitly prohibited under the scope of Article 6(6) DMA.³²¹ In such a case, the Council’s amendment from “Internet access providers” to “Internet access services” would amount to an effective extension of the scope of this specification, even if it may be argued that services such as browsers and search engines are already covered by the general part of the provision.

In terms of stakeholders’ opinions, many OPC submissions, including by some prospective gatekeepers, expressed support towards the removal (in general) of barriers to switching and multi-homing to increase user choice and competition. Among Big Techs, Facebook has underlined how switching and multi-homing is already easy, but might present higher costs (often entailing the purchase of a new device) for services which are “part of, or bundled with, embedded operating systems” than for device-independent online services; Microsoft has recognized how gatekeepers may put into place practices which discourage or limit the possibilities for switching and multi-homing, especially by making content only accessible inside a “walled garden” or in cases where one side of the platforms already single-homes; and Google – similarly to several other submissions – has identified data portability and interoperability as possible avenues to facilitate switching and multi-homing.³²² It must be underlined, however, how many of the concerns raised with practices limiting switching and multi-homing relate to the ability of *business* users to switch or multi-home, especially with regard to the choice of cloud service providers and of trading partners;³²³ as Article 6(6) DMA explicitly relates to *end* users’ freedom of choice, these concerns were not addressed by this

³²⁰ IAR Support Study, pp. 314-327. Proponents of “device neutrality” argue for the extension of neutrality and non-discrimination provisions comparable to the network neutrality ones imposed on ISPs to device manufacturers/OS providers.

³²¹ While one could argue that such practices would be covered anyway under Art. 6(3) and 6(4) DMA, there could be some borderline cases which would fall outside of the scope of these two obligations – for instance, if a gatekeeper were to restrict switching through practices different than default settings or limits to installation.

³²² Data portability *for end users* is the object of a separate provision, Art. 6(9) DMA, which expands the more limited data portability right which already existed under Art.20 GDPR and which is not discussed more in detail in this dissertation since its implications are more relevant for inter-platform competition. Data portability for *business* users, on the other hand, was amended out of the Commission’s original text on both co-legislators’ proposal during the legislative process.

³²³ According to the IAR Annexes, p. 31, the latter concern was particularly prominent for the book publishing sector.

specific obligation and business users will need to invoke different provisions to argue for easier switching and multi-homing conditions under the DMA.³²⁴

The wording of Article 6(7) DMA is not straightforward, but in general it mandates gatekeepers to allow third-party providers “effective interoperability with, and access for the purposes of interoperability to”³²⁵ the hardware and software features which are available to the gatekeeper’s own offerings. In particular,

- (a) the first part of the obligation regards “hardware and software features accessed or controlled via the operating system or virtual assistant”³²⁶ of the gatekeeper, and grants to service and hardware providers a right to interoperability with these features “as are available to services or hardware provided by the gatekeeper”;
- (b) the second part of the obligation regards “services provided together with, or in support of, core platform services” (initially introduced as “ancillary services” by the co-legislators), and grants to business users and third-party providers of such services a right to interoperability with the OS, software and hardware features available to gatekeepers when providing such services “regardless of whether those features are part of the operating system”.³²⁷

Despite the significant overlap between the two parts of the obligation, some differences remain. The first part targets features which are accessed through the OS or through a virtual assistant, rather than being offered as stand-alone “ancillary services”, while the second part targets features underlying the functionality of these “ancillary services” regardless of whether they are part the OS or not, and thus could also capture (a) attempts to exclude specific features from the scope of this obligation through technical workarounds, by splitting them up from the OS and offering them as a pre-installed application instead, and (b) services which are “ancillary” to CPSs other than operating systems and virtual assistants, such as browser extensions or apps developed for a social network. In both cases, Article 6(7) DMA provides for an exception allowing gatekeepers to take “strictly necessary and proportionate measures”,

³²⁴ For instance, they may invoke a breach of gatekeepers’ duty to apply FRAND access conditions under Art. 6(12) DMA discussed below, or they might make use of the bans on parity clauses discussed above to multi-home more effectively on different distribution channels.

³²⁵ Art. 6(7) DMA.

³²⁶ *Ibid.*

³²⁷ *Ibid.*

subject to a duty of justification, “to ensure that interoperability does not compromise the integrity of the operating system, virtual assistant, hardware or software features provided by the gatekeeper”.³²⁸

The complex wording of Article 6(7) DMA is likely the result of the heavy changes it underwent during the legislative process, especially on the EP’s proposal. The Commission’s original text, in fact, only included what now is the second part of the obligation (interoperability with the features available in the provision of ancillary services), while the EP obtained the addition of the now-first part (interoperability with the same features available to the gatekeeper through the OS/VA), the extension to hardware features and the fact that interoperability should be provided “free of charge” rather than under FRAND conditions as proposed by the Council. Both co-legislators supported the addition of an integrity exception, while the EP was not able to secure the inclusion of a second exception on the grounds of protecting end user data protection or cyber security. The EP also advanced proposals regarding the interconnectivity (then changed to interoperability) of number-independent interpersonal communications services, which was integrated in a separate article under the newly-introduced Article 7 DMA,³²⁹ and regarding the interconnectivity of social network services, which did not make its way into the final text of the DMA.

This obligation targets situations where a gatekeeper reserves for itself a functionality of its CPS that is necessary to provide a certain service or hardware product,³³⁰ while denying or degrading interoperability with such functionality to business users and alternative providers in order to preclude prospective competitors from entering downstream markets or from competing in such markets on a level playing field. The IAR Support Study provides some examples of this practice: for instance, Apple reserving the use of the iPhone’s NFC chip for its own mobile payment solution Apple Pay, while preventing competitors from accessing this chip and thus from developing mobile payment solutions with comparable functionalities – a practice that is being investigated by the Commission in *Apple Mobile payments*³³¹ and which was the object of a specific German law mandating access to technical infrastructure for mobile

³²⁸ *Ibid.*

³²⁹ Art. 7 DMA provides a schedule for gatekeepers to make the “basic functionalities” of their number-independent interpersonal communications services interoperable with other services of this kind through “technical interfaces or similar solutions”. As this obligation mostly concerns inter-platform competition by enabling new communications services to enter the market despite the incumbents’ network effects, it will not be examined in detail in this dissertation.

³³⁰ In the case of hardware, Recital 55 DMA makes the example of wearable devices which offer their functionalities by accessing features controlled via a device’s OS/VA.

³³¹ *Apple Mobile payments*, Case AT.40452.

payments;³³² or Microsoft refusing to provide Slack with interoperability information necessary to connect to MS calls or documents³³³ and Sun Microsystems with information for its work group OS to interoperate with computers running Windows.³³⁴ Targeting these practices, in the intentions behind the DMA, is meant to protect alternative providers' capacity to innovate and, consequently, choices offered to end users.³³⁵

Looking at OPC submissions related to interoperability, several responses lamented the lack of meaningful interoperability and supported the introduction of measures or standards to address the situation, with a specific reference in the IAR Annex 2 to financial service providers' concerns for the provision of "technical infrastructure and related functionalities that are increasingly relevant for the provision of digital financial services".³³⁶ In some cases, these responses tied the questions of effective interoperability and access to data/data portability together (especially by digital rights' associations),³³⁷ interpreting interoperability as interoperability of data (e.g. through common standards and APIs) and of the systems employed for data transfers. Among prospective gatekeepers, Facebook replied that it considered the level of interoperability between existing services of different platform companies as already sufficient, while Microsoft noted how past competition cases have already made Windows an "open platform" whose interfaces used to interoperate with Microsoft's products are "open, documented, and available to others", and Apple voiced concerns related to non-interoperability being one of its competitive differentiators similar to those raised against side-loading as discussed above, as well as related to the negative consequences on the possibility of free-riding over proprietary innovations. Google and Apple both advocated for a case-by-case analysis of interventions related to interoperability as opposed to attempts to exhaustively catalogue these areas of intervention in advance, similarly to how Microsoft underlined the necessity for "careful considerations of platform safety, data security, consumer privacy rights, and potential unintended consequences on platform investment and innovation". These latter concerns are similar, albeit less specific, to those raised confidentially by one stakeholder with regard to the legislative expansions of the scope of the obligation beyond its original scope. A broad interpretation of Article 6(7) DMA, it has

³³² IAR Support Study Annexes, pp. 328-329.

³³³ *Ibid.*, p. 356.

³³⁴ *Ibid.*, pp. 357-359. The latter instance was found to amount to abusive refusal to supply in *Microsoft*, Case AT.37792, as the Commission found interoperability with Windows to be an indispensable input to compete viably in the market at hand.

³³⁵ Recital 57 DMA,

³³⁶ IAR Annexes, p. 32.

³³⁷ *Ibid.*

been argued, could lead any third party to be able to demand OS-level access to sensitive features such as biometric recognition technologies (e.g., fingerprint scanners), health data, background processing or the functionalities underlying accessibility features (e.g., text-to-speech),³³⁸ resulting in cyber-security and data protection threats that gatekeepers would be prevented from acting against in the absence of an attack on OS/software/hardware integrity due to the rejection of the EP’s proposed exception to this end.³³⁹

4.5. Data-related practices

Article 6(2) DMA prohibits gatekeepers from using data generated or provided by business users’ activity (including by their respective end users) in order to compete against those same business users when the data in question are not publicly available.³⁴⁰ Compared to the original Commission proposal, the obligation has been extended to cover data gathered through “services provided together with, or in support of, the relevant core platform services”³⁴¹ (again, replacing the less precise wording “ancillary services” initially proposed by the two co-legislators), while the EP’s proposal to move the provision to Article 5 (which had raised objections due to the need, expressed confidentially by a stakeholder, for further specification by the Commission for proper implementation) did not become part of the final agreement. Article 6(2) DMA is meant to target, in particular, those cases in which data on competing third-party companies is made “available to the group's own subsidiary or corporate department which competes with other companies on the platform [...] to gain an advantage in competition on the platform and to develop targeted displacement strategies”³⁴² through the development of competing offerings. This practice blurs the line between data-driven practices and self-preferencing (it is telling that the IAR Support Study considers it together with other self-preferencing practices operated by Amazon),³⁴³ and finds its inspiration at the EU level in the pending *Amazon Marketplace* antitrust proceedings,³⁴⁴ which are concerned exactly with Amazon’s use of “very large quantities of non-public seller data” to “calibrate Amazon's retail

³³⁸ Accessibility features would be particularly risky, for instance, in their ability to read personal data (e.g., emails) as plain text and to initiate actions on behalf of the end user.

³³⁹ An even broader interpretation, it has been argued, could lead to demands for access to features which are not part of the CPS at hand but which are available to a gatekeeper’s services (e.g., server-side software processing). Such an interpretation is less likely in the light of Art. 1(2) DMA, under which “this Regulation shall apply to core platform services provided or offered by gatekeepers” (emphasis added).

³⁴⁰ Art. 6(2) DMA.

³⁴¹ *Ibid.*

³⁴² IAR Support Study Annexes, p. 288.

³⁴³ *Ibid.*, pp. 288-314.

³⁴⁴ *Amazon Marketplace*, Case AT.40462.

offers and strategic business decisions to the detriment of the other marketplace sellers”.³⁴⁵ In this way, Amazon would be able to decide which products to launch, at which price and through which suppliers³⁴⁶ without having to face “the normal risks of retail competition”,³⁴⁷ in a way that would comprise an abuse of dominant position under Article 102 TFEU.³⁴⁸ The IAR Support Study echoes this view when it notes that this behaviour distorts competition “in the various online retail markets”³⁴⁹ and is likely to harm consumers in the long term by reducing incentives to innovate (as third-party sellers may be deterred from entering the market due to Amazon’s tactics) by reducing consumer choice and by, potentially, allowing Amazon to “demand monopoly prices in certain product categories” in the future after having driven third-party competitors out of the market.³⁵⁰ While the case is still pending, it is interesting to note how the commitments offered by Amazon in order to address the Commission’s concerns and obtain a closure of the cases³⁵¹ consist exactly in refraining to use “any non-public Seller Data (*sic*)” when conducting retail operation in competition with sellers.³⁵² Concerns about gatekeepers misusing non-public business user data to identify new market niches to develop their own offerings for also surfaced among the stakeholders’ submissions to the OPC, with one entry explicitly quoting a Wall Street Journal report about the use of such practice by Amazon,³⁵³ while this specific practice was not the object of specific remarks by the prospective GAFAM gatekeepers.

Article 6(10) DMA provides business users with the right to obtain “effective, high-quality, continuous and real-time access to, and use of”³⁵⁴ the data generated or provided by their activities on the platform. This includes access to both aggregated and non-aggregated data, also encompassing data provided or generated by end users engaging with the business user’s offerings, including – provided an end user consents to such sharing – personal data

³⁴⁵ European Commission, "Antitrust: Commission Sends Statement Of Objections To Amazon For The Use Of Non-Public Independent Seller Data And Opens Second Investigation Into Its E-Commerce Business Practices", 2020, https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2077.

³⁴⁶ IAR Support Study Annexes, p. 296.

³⁴⁷ European Commission, "Antitrust: Commission Sends Statement Of Objections To Amazon For The Use Of Non-Public Independent Seller Data And Opens Second Investigation Into Its E-Commerce Business Practices" (see note 345).

³⁴⁸ *Ibid.*

³⁴⁹ *Ibid.*

³⁵⁰ IAR Support Study Annexes, p. 313.

³⁵¹ Amazon was responding in parallel also to *Amazon Buy Box*, Case AT.40703.

³⁵² Amazon, "Case COMP/AT.40462 And Case COMP/AT.40703 – Commitment Proposal", 2022, https://ec.europa.eu/competition/antitrust/cases1/202229/AT_40462_8414012_7971_3.pdf.

³⁵³ Dana Mattioli, "Amazon Scooped Up Data From Its Own Sellers To Launch Competing Products", *The Wall Street Journal*, 2020, https://www.wsj.com/articles/amazon-scooped-up-data-from-its-own-sellers-to-launch-competing-products-11587650015?mod=hp_lead_pos2.

³⁵⁴ Art. 6(10) DMA.

“directly connected” to the end user’s interaction with the business user’s offerings.³⁵⁵ Compared to the Commission proposal, this obligation too was expanded to cover data from formerly-called “ancillary services” above on both co-legislators’ proposal, while the EP’s request to grant business users *in situ* access³⁵⁶ as well did not make its way into the final deal.

As explained in the IAR, this obligation is particularly concerned with the practice called “disintermediation”, where the gatekeeper removes the direct link between business users and their respective end users by withholding or controlling access to customer data,³⁵⁷ for instance on privacy grounds despite not having asked the customer for their consent to data sharing at all.³⁵⁸ In one of the IAR Support Study case studies, the possibility for a gatekeeper to reserve the right to collect and use information about individual users which is not made available to business users was also mentioned,³⁵⁹ establishing a potential link between the practices targeted by Article 6(10) and 6(2) DMA. Stakeholders seeking access to data do so both to establish more direct business-client relationships and to innovate and stay competitive in the market.³⁶⁰ The intention to provide users with personalised content was also mentioned in the OPC. The media and publishing sector were particularly concerned with the loss of direct contact with their readers and the subsequent loss of audience data,³⁶¹ while the IAR reported many complaints by app developers as well.³⁶² Platforms, on the other hand, were more sceptical, raising privacy objections both on user expectation and on regulatory grounds (especially in terms of GDPR obligations)³⁶³ as well as concerns about the viability of their business model if business users could bypass them altogether for future transactions,³⁶⁴ raising objections comparable to the ones mentioned with regard to Article 5(4) DMA and the OTA sector above. Apple and Microsoft stressed particularly user privacy concerns and the risk of creating an “end-run around” the GDPR, while Facebook and Google underlined more how they already provide business users access to data, be it through APIs (for Facebook) or through public datasets and data mobility tools (for Google). Google also included remedies concerning

³⁵⁵ *Ibid.*

³⁵⁶ For an explanation of the concept and proposed benefits of *in situ* data access, see Marshall W. Van Alstyne et al., "Economic And Business Dimensions: ‘In Situ’ Data Rights", *Communications Of The ACM* 64, no. 12 (2021): 34-35, doi:10.1145/3491270.

³⁵⁷ IAR, pp. 19-20.

³⁵⁸ *Ibid.*, p. 59.

³⁵⁹ IAR Support Study Annexes, pp. 331-332.

³⁶⁰ IAR Annexes, p. 80.

³⁶¹ *Ibid.*, p. 33.

³⁶² IAR, p. 59.

³⁶³ Regulation (EU) 2016/679.

³⁶⁴ IAR Annexes, p. 80.

data access among the examples of measures that it fears could reduce the incentives to promote innovation and generate efficiencies.

4.6. Access conditions

Article 6(12) DMA requires gatekeepers to apply FRAND conditions of access “to its software application stores, online search engines and online social networking services”³⁶⁵ through the publication of general conditions of access to be assessed by the Commission, which “include[e] an alternative dispute settlement mechanism.”³⁶⁶ Recital 62 DMA specifies that access conditions include pricing conditions, and clarifies that the test of unfairness for this article consists in the following:

“Pricing or other general access conditions should be considered unfair if they lead to an imbalance of rights and obligations imposed on business users or confer an advantage on the gatekeeper which is disproportionate to the service provided by the gatekeeper to business users or lead to a disadvantage for business users in providing the same or similar services as the gatekeeper.”³⁶⁷

It must be noted that the Commission proposal for this obligation only covered app stores, and that the addition of search engines and social networking services only came late during the legislative process. Since, until the last trilogue on 24 March 2022, the EP was still asking for the extension of this provision to all CPS, while the Council kept rejecting such a position, it is likely that the final subset of CPS included represents a compromise extending the obligation only to those additional services that were more crucial for the EP. In any case, the discussion applies, *mutatis mutandis*, to search engines and social network services as well. The fact that Article 6(12) DMA originally only applied to app stores explains why, looking at the IAR Support Study, this obligation seems to originate from the experience gathered on two sets of issues related to app stores conditions which are being examined by the Dutch ACM and which led it to open an investigation against Apple in the Netherlands.³⁶⁸ The first one is the alleged lack of transparency of app stores terms and conditions for access, especially for what regards their interpretation³⁶⁹ and the ability of app providers (especially small ones) to

³⁶⁵ Art. 6(12) DMA.

³⁶⁶ *Ibid.*

³⁶⁷ *Ibid.*, Recital 62.

³⁶⁸ IAR Support Study, p. 273.

³⁶⁹ The Netherlands Authority for Consumers & Markets, "Market Study Into Mobile App Stores", Case No.: ACM/18/032693, 2019, <https://www.acm.nl/sites/default/files/documents/2019-04/marktstudies-appstores.pdf>, pp. 97-98. According to the study, “[s]ome providers argue that [...] the terms & conditions are so all-encompassing that it is hard to find out what is actually wrong with the app.”

contact gatekeepers to receive an explanation for a refusal.³⁷⁰ The second one is gatekeepers' alleged discrimination in treatment between comparable apps. This includes not only differential treatment of third-party providers (the IAR Support Study makes the example of Apple's special treatment of Amazon Prime Video to attract the popular service on its Apple TV),³⁷¹ but also of the gatekeeper's own products and services (the IAR Support Study mention third party complaints that "Apple is creating restrictive rules for its marketplace, but does not play by the rules itself",³⁷² especially by not charging them the same fees charged to similar third-party offerings).³⁷³ The fact that the latter case is covered by Article 6(12) as well, and not only by the unfair self-preferencing obligations described above, is confirmed by Recital 62 DMA's inclusion of "prices charged or conditions imposed [...] for the same service the gatekeeper provides to itself"³⁷⁴ among the fairness benchmarks for general access conditions.

In terms of stakeholders' submissions, business users' concerns echoed the ones mentioned in the IAR in terms of perceived arbitrary enforcement of unclear terms and conditions, use of pricing conditions to limit the possibilities to compete on price, and preferential treatment of certain Big Tech companies; several of them also mentioned the use of access conditions as a means to establish control over the access to data and how these contractual terms are made possible by business users' lack of bargaining power towards gatekeepers. Prospective gatekeepers were divided: while, on one hand, some underlined how terms and conditions are already covered by the P2B Regulation³⁷⁵ and potentially by Article 102 TFEU,³⁷⁶ others reported instances where they experienced themselves the use of access conditions by other gatekeepers to hinder competition against a platform's own services.³⁷⁷ Facebook in particular stressed more than once the importance of transparency in terms and conditions.

³⁷⁰ *Ibid.*, pp. 96-97.

³⁷¹ According to IAR Support Study, p. 174, the special treatment consisted in a reduction of Apple's high commission fee and in a permission to violate app developer guidelines by porting a browser-based application to lower development efforts.

³⁷² IAR Support Study, p. 268.

³⁷³ *Ibid.*, p. 286.

³⁷⁴ Recital 62 DMA.

³⁷⁵ Mentioned in Amazon's, Apple's and Google's submissions.

³⁷⁶ Google's submission underlined how Art. 102(a) TFEU identified "directly or indirectly imposing [...] unfair trading conditions" as abuse of dominant position.

³⁷⁷ Facebook was concerned with OS and app store conditions restricting access to data, while Microsoft was concerned with Apple's exclusion of its competing game subscription service xCloud from the App Store and, consequently, from iOS devices.

5. Critical analysis

The work done in the previous chapter has brought to the surface two different types of information related to each one of the obligations selected for discussion, namely the objective pursued by the introduction of each specific provision with and the concerns and problems which emerged from the submissions and positions of different stakeholders. These have been collected and summarised for the purposes of this analysis in Table 3 in the next page. On one hand, this has allowed to identify some themes that recurred across different obligations, in particular for what regards the concerns that have emerged; on the other one, this has enabled to compare them with the competition issues and platform specificities that emerged during the literature review, in particular for what regards the purposes and practices addressed by the various obligations. This has also made it possible to identify which obligations would already benefit from specification and clarification and thus will be likely to require the adoption of implementing acts by the Commission under Article 8 DMA; moreover, two obligations have emerged as potentially problematic due to the nature of the concerns raised against them (Article 6(7) and 6(10) DMA) and will thus be object of a specific focus besides the one that will be made on business model concerns.

Art.	Purpose	Concerns emerged
5(3)		<ul style="list-style-type: none"> • No problems
5(4)	<ul style="list-style-type: none"> • Enable more effective competition through alternative sales channels • Less effective to disadvantage competitors by artificially raising their prices 	<ul style="list-style-type: none"> • Problematic for certain business models (see Booking.com)
5(5)		<ul style="list-style-type: none"> • No problems
6(5)	<ul style="list-style-type: none"> • (Almost) impossible to self-preference through prominent placement • Impossible to de-rank competitors and business users as a retaliation 	<ul style="list-style-type: none"> • No problems, but objections related to pro-competitive vertical integration
6(3)	<ul style="list-style-type: none"> • Slightly more difficult to self-preference through default/availability bias (impossible for browsers/SE/VA) 	<ul style="list-style-type: none"> • No problems, but it may be difficult to implement³⁷⁸
6(4)	<ul style="list-style-type: none"> • More difficult to deny access to competitors • Remove structural power by reducing the bottleneck position of app stores 	<ul style="list-style-type: none"> • (Questionable) objections related to "curated environment" business models
6(6)	<ul style="list-style-type: none"> • Prevent circumvention of 6(3) and 6(4) • Prevent discrimination between providers of Internet access services 	<ul style="list-style-type: none"> • No problems, but ambiguous wording
6(7)	<ul style="list-style-type: none"> • More difficult to deny access to competitors • More difficult to prevent the development of competing offerings 	<ul style="list-style-type: none"> • Problematic for "curated environment" business models • Cybersecurity concerns
6(2)	<ul style="list-style-type: none"> • More difficult to compete by using competitors' proprietary information 	<ul style="list-style-type: none"> • No problems, but could be circumvented³⁷⁹
6(10)	<ul style="list-style-type: none"> • Impossible to prevent competitors from innovating through data from their activities • Remove structural power by removing "unavoidable trading partner" status (by preventing disintermediation) 	<ul style="list-style-type: none"> • Problematic for certain business models (see Booking.com) • Spam and content moderation concerns
6(12)	<ul style="list-style-type: none"> • More difficult to self-preference by not applying rules to the gatekeeper's offerings • More difficult to discriminate between comparable offerings through "special treatment" • Remove structural power due to entry barriers stemming from unfair access conditions 	<ul style="list-style-type: none"> • No problems, but will need specification

Table 3. Summary of purposes and concerns for each obligation.

³⁷⁸ See Ecosia's concerns with Google's auction-based default search engine choice screen in IAR Support Study Annexes, pp. 315-316.

³⁷⁹ See the examples of how Amazon employees found ways around Amazon's internal policies prohibiting access to data on specific sellers described in "Amazon Scooped Up Data From Its Own Sellers To Launch Competing Products" (see note 353).

As mentioned above, a first point that has emerged is the fact that several of the obligations will need the Commission to make use of its further specification powers in order to be properly and effectively implemented by gatekeepers. Besides the cases in which this guidance will be of a purely technical nature, to assess whether a gatekeeper's implementation measures are sufficient or not,³⁸⁰ two obligations stand out in particular. As argued above, the use of the vague term "Internet access services" in Article 6(6) DMA – without providing a definition of the term in Article 2 DMA – might raise questions related to its scope of application for what regards borderline cases not falling clearly under the general part of the obligation. While it is unlikely that cases related to services such as web browsers or search engines will not fall either under the obligation's general part nor under any other provision of the DMA, so that the concrete difference in terms of legal results would be negligible, it is arguably more desirable for this to be clarified *ex ante* by the Commission rather than *ex post* through legal litigation. Similarly, Article 6(12) DMA would likely benefit from more detailed guidance on how the "fairness" of general access conditions will be assessed, beyond the (still welcome) benchmarks provided for in Recital 62. In particular, it is not stated whether Recital 62 DMA provides an exhaustive list of benchmarks or just a list of examples, and thus the amount of discretion and flexibility that will go into the enforcement of Article 6(12) DMA.

In terms of the concerns that have emerged, an observation that emerges from Table 3 above is that the most relevant ones can be grouped in two groups: business model concerns and concerns related to the (underestimated) governance role of the platform.

Looking at the first category, both the obligations in Article 5(4) and 6(10) DMA, for instance, allow business users to establish a direct relationship with their own customers bypassing the intermediary role played by the platform. While this is fine for situations where the platform is immediately remunerated for the initial customer acquisition service provided (think of e-commerce platforms, where the transaction fee paid when a purchase is made immediately compensates the platform for the successful seller-customer match provided), as well as for complex multi-product ecosystems in which fees from matching the two sides are only one of the several revenue streams of the platform owner, the objection raised by Booking.com mentioned above shows how this becomes problematic when applied to OTAs as the prevalent business model in the OTA sector consists in the provision of *refundable* bookings. The fact that, under this different business model, the platform is not able to secure

³⁸⁰ See the examples made in notes 378 and 379 above of how implementation measures can still be circumvented or fail to solve the problem they were meant to address.

its compensation for the service provided until several days *after* the match has happened (and, under Article 6(10) DMA, the hotel has potentially received the now-acquired guest's contact) opens up the possibility for hotels to exploit this time window to contact guests privately and get them to cancel the booking made on the platform in order to conclude a different contract (at a lower price) directly with the hotel. While it can be argued that customers receiving offers for lower prices would be a pro-competitive effect in the short run, if this were to become a widespread behaviour it could compromise the economic viability of the OTA business model in the longer run by making it significantly harder to monetise successful matches – something that, strikingly, has also been recognised in one of the analytical papers commissioned by the European Commission itself during the stages that preceded the publication of the DMA proposal,³⁸¹ but without resulting in an exception or specification of these two obligations that accounts for business model diversity. While a threat to the economic viability of OTAs could be used to invoke the (at least partial) suspension of Article 5(4) and 6(10) DMA under Article 9 DMA, two issues would remain: (a) OTAs would still face the burden of the proof to demonstrate such a threat to their economic viability; and (b) the temporary nature of an Article 9 suspension, which is limited to “the duration necessary to address such threat to the gatekeeper’s viability”³⁸² would probably require gatekeeper OTAs to adapt their business model to become fully compliant with the obligations in question. This would open the door to potential unintended consequences on end users’ welfare as well, for instance if OTAs designated as gatekeepers decided to protect themselves by phasing out fully refundable bookings in the EU. Another set of business model-related concerns regards the already-mentioned objections raised by Apple according to which “general and unconditional interoperability obligations” (comparable to the ones imposed under Article 6(7) DMA) with a gatekeeper’ OS would pose problems to Apple’s “curated environment” business model centred around end users’ trust in the security, privacy and performance levels granted by the mandatory App Store review process. While, as argued in the previous chapter, these concerns do not appear to raise significant problems with the installability requirement imposed under Article 6(4) DMA,³⁸³ an extensive interpretation of Article 6(7) DMA, especially if read together with Article 6(12), could – as discussed more in detail below – effectively pose some

³⁸¹ Vaida Gineikytė, Egidijus Barcevičius and Guoda Cibaitė, "Analytical Paper 5: Business User And Third-Party Access To Online Platform Data" (Observatory on the Online Platform Economy, 2020), https://platformobservatory.eu/app/uploads/2020/09/Analytical-Paper-5-Business-user-and-third-party-access-to-data_final.pdf.

³⁸² Art. 9(1) DMA.

³⁸³ See note 314.

limits to gatekeepers' ability to offer "curated environment" user experiences even to those users that value them.³⁸⁴

These concerns, in particular those related to the continued viability of certain business models under Article 5(4) and 6(10) DMA, are the result of a business model agnostic approach which is also reflected in a series of assumptions made in the IAR.³⁸⁵ As noted by Teece and Kahwaty, the IAR assumes that business will continue "as usual" due to the need to continue to depend on a large user base, which will prevent the "costs arising from the need to use an alternative business model or to position their products or services differently in the marketplace"³⁸⁶ from having repercussions on other parts of platform firms' business models.³⁸⁷ Such a reasoning seems to rest on the assumption that, since none of the obligations in the DMA ban specific monetisation models,³⁸⁸ gatekeepers will choose to take a hit to their "supra-normal profits" rather than lose their competitive edge in the competition for users by passing on lost revenues to consumers in the form of higher prices. Such assumption misses out on two main points. First of all, while no specific monetisation model is banned under the DMA, the example of OTAs mentioned above shows how the implementation of certain obligations (Article 5(4) and 6(10) DMA) by certain business models (fully-refundable transactions) under certain circumstances (business users exploiting the refund time window to avoid paying transaction fees after having availed themselves of the intermediation service) may make perfectly legitimate monetisation avenues simply *not* profitable, rather than *less* profitable, anymore. Secondly, it does not distinguish between multi-product and multi-service *platform ecosystems*, where it may make economic sense to run an unprofitable intermediation service at a loss in order to attract users into the ecosystem and thus increase the profitability of the ecosystem as a whole, and single-purpose *platforms* which might as well have a single monetisation avenue which, if made unprofitable, would need to be replaced with other sources

³⁸⁴ While Recital 62 DMA clarifies that Art. 6(12) DMA "should not establish an access right" to app stores in order to safeguard providers' role in the fight against illicit content, allowing to develop applications interoperable with the gatekeeper's hardware or OS but then rejecting an application from an app store on the grounds that it interoperates with a critical system feature could be construed as discriminatory (and thus prohibited) if that same feature is also available to the gatekeeper's own services.

³⁸⁵ The need to take into account platforms' business models has been reiterated in the literature, see for instance Jacobides and Lianos (see note 69), Colangelo (see note 137), Teece and Kahwaty (see note 386 below) and Cennamo et al. (see note 34). Colomo (see note 212) also noted how the implementation of certain DMA obligations may require gatekeepers to change their business model.

³⁸⁶ David J. Teece and Henry J. Kahwaty, "Is The Proposed Digital Markets Act The Cure For Europe's Platform Ills? Evidence From The European Commission's Impact Assessment", *BRG Institute*, 2021, https://media.thinkbrg.com/wp-content/uploads/2021/04/11215103/Is-the-DMA-the-Cure_Teece_Kahwaty.pdf.

³⁸⁷ *Ibid.*

³⁸⁸ IAR Annexes, p. 49.

of revenue for the platform to stay in the market.³⁸⁹ In the latter case, it is not a given that the change in monetisation models would imply a net zero or positive change in welfare for end users.³⁹⁰

For what regards the second category of concerns that have emerged, the first obligation to be discussed is Article 6(7) DMA, due to the concerns raised in terms of end user security and data protection by such a broad interoperability requirement coupled with the very limited scope for preventive measures afforded to gatekeepers. As discussed in the previous chapter, the broad scope of Article 6(7) DMA has the potential to cover critical functionalities which could be employed in a malicious way, such as the background listening function used by voice assistants to respond to vocal commands such as “OK Google” or “Hey Siri” or the abilities to read on-screen text and to initiate actions on the user’s behalf which are behind accessibility functions. The fact that the EP amendment introducing a cybersecurity justification for the adoption of preventive measures by gatekeepers did not make its way into the compromise text means that gatekeepers will not have the grounds to act when a software application of this kind compromises user security or privacy without also compromising the integrity of the functionalities provided by the gatekeeper (for instance, if it collects sensitive data unbeknown to the end user but without interfering with other processes and functionalities) under Article 6(7) DMA,³⁹¹ and, while gatekeepers will maintain the possibility to reject upon review such applications from their app stores,³⁹² the security justification related to sideloaded apps under Article 6(4) DMA allows gatekeepers to *enable end users* to protect security rather than *enabling gatekeepers* to protect end user security. This, coupled with the exclusion of default settings from the range of measures available to gatekeepers, seems to shift the burden for cybersecurity and data protection relative to side-loaded apps and app stores on the end user, with all the potential risk this implies for less tech-savvy users. Comparable concerns have emerged relative to Article 6(10) DMA and the potential for unintended consequences (beyond the incompatibility with certain business models mentioned above) which derives from allowing business users to reach out directly to individual end users, both in terms of the

³⁸⁹ Hypothetically, such a scenario could even have the unintended effect of putting services offered by already-dominant platform ecosystems in an even *better* competitive position compared to single-purpose platforms designated as gatekeepers under the Art. 3 DMA quantitative thresholds.

³⁹⁰ For instance, OTAs struggling to monetise successful transactions may start charging hotels or users (or both) for *access* to the platform (resulting in an increase in consumer prices), or may start showing advertisements to end users (degrading consumer experience).

³⁹¹ A possible – albeit partial – way out, here, would be a very extensive interpretation by the Commission of the concept of “integrity”, so as to cover at least the most egregious cases of security breaches.

³⁹² Recital 62 DMA.

potential for waves of spam offers and for the possibility to offer illicit or counterfeit goods outside of the reach of the platform’s content moderation activities. While business users’ access to personal data – and thus to their contact information – is subject to the requirement to obtain end users’ consent, much will depend on how meaningfully such consent choice is presented to end users to begin with.

In both of these cases, the obligations at hand seem to fail to appreciate the platform’s role beyond the provision of matches between users on different sides, in particular for what regards the fact that the same governance mechanisms which enable the unfair practices being targeted are also key instruments to perform the curation activities necessary to weed out undesirable offerings from the platform ecosystem in question.³⁹³ While limitations to the use of such mechanisms are welcome when they prevent gatekeepers from engaging in anti-competitive or abusive behaviour, a balance needs to be stricken between these desirable, pro-competitive effects and the need for safeguards³⁹⁴ that allow platform and ecosystem orchestrators to continue managing negative network effects³⁹⁵ and to effectively play a role “in the fight against illegal and unwanted content”³⁹⁶ as foreseen under other pieces of legislation being discussed in the same period as the DMA.³⁹⁷

For what regards the objectives pursued by the single obligations, most of the provisions analysed target the manifestation of gatekeepers’ market power, which generally happens either when such market power is leveraged to obtain conditions “that would not be possible under normal market circumstances”³⁹⁸ (Article 5(3), 5(4), 5(5) and 6(12) DMA) or when a gatekeeper’s dual role as both the platform’s orchestrator and as a provider of offering competing with those of business users is leveraged to put the gatekeeper’s own offerings in a better position compared to competitors in downstream markets (Article 6(3), 6(4), 6(5), 6(6), 6(7), 6(2) and 6(10) DMA). Many of these practices targeted by the obligations analysed have

³⁹³ On the importance of curation strategies to minimise negative network effects, see Geoffrey G. Parker, Marshall W. Van Alstyne and Sangeet Paul Choudary, *Platform Revolution: How Networked Markets Are Transforming The Economy - And How To Make Them Work For You* (see note 19).

³⁹⁴ Hopefully, the safeguards in question will be the object of much-needed Commission specifications under Art. 8 DMA rather than the result of legal proceedings.

³⁹⁵ For instance, due to by end users being subject to spam waves as mentioned in the concerns above.

³⁹⁶ Recital 62 DMA.

³⁹⁷ Recital 62 DMA refers in particular to the DSA’s concerns with illicit and unwanted content; recently, the Commission has also tabled a proposal for a Cyber Resilience Act with the purpose of strengthening cybersecurity in hardware and software products (see European Commission, “State Of The Union: New EU Cybersecurity Rules Ensure More Secure Hardware And Software Products”, 2022, https://ec.europa.eu/commission/presscorner/detail/en/IP_22_5374). In the light of the concerns discussed above, a careful implementation of Art. 6(7) and 6(10) DMA will be necessary to avoid conflicts between these obligations and the other new rules for the digital sector that have been mentioned.

³⁹⁸ IAR, p. 88.

emerged in the sources mentioned in the literature review above, such as self-preferencing in intra-ecosystem competition in general³⁹⁹ and in ranking in particular, be it in favour of the gatekeeper's own offerings or of third-party offerings making use of certain services of the gatekeeper;⁴⁰⁰ denial of access to third-party competitors⁴⁰¹ or the imposition of access conditions that the gatekeeper's offerings do not need to respect;⁴⁰² the imposition of abusive terms of trade (cf. "unfair access conditions") to complementors, made possible by the control over a bottleneck of the ecosystem;⁴⁰³ or the use of business users' data to develop competing offerings⁴⁰⁴ and the restriction of the access to data to business users and competitors.⁴⁰⁵

In most cases, these practices are targeted directly by the corresponding obligations, which prohibit or make more difficult specific practices. In some occasions, however, the obligations end up also taking away some of the structural power that gatekeepers leverage to enable such practices to begin with, such as by removing or reducing barriers to entry for competing business users or by loosening gatekeepers' control over specific bottlenecks of the ecosystem (e.g., app stores). This is expected in the IAR and its Annexes to result in more intra-ecosystem competitive pressure and, eventually, welfare gains for consumers in the form of lower prices and more innovation; as seen above, however, it also comes at the price of risking to take legitimate – and sometimes needed – governance mechanisms away from the end of gatekeepers.

³⁹⁹ Frederic Jenny, "Competition Law And Digital Ecosystems: Learning To Walk Before We Run" (see note 83).

⁴⁰⁰ Giuseppe Colangelo, "Evaluating The Case For Regulation Of Digital Platforms" (see note 137).

⁴⁰¹ Frederic Jenny, "Competition Law And Digital Ecosystems: Learning To Walk Before We Run" (see note 83).

⁴⁰² Giuseppe Colangelo, "Evaluating The Case For Regulation Of Digital Platforms" (see note 137).

⁴⁰³ Michael G. Jacobides and Ioannis Lianos, "Ecosystems And Competition Law In Theory And Practice" (see note 69).

⁴⁰⁴ Giuseppe Colangelo, "Evaluating The Case For Regulation Of Digital Platforms" (see note 137).

⁴⁰⁵ Michael G. Jacobides and Ioannis Lianos, "Ecosystems And Competition Law In Theory And Practice" (see note 69).

6. Discussion

The observations made in the previous chapter have implications for our discussion about the DMA's success in "patching" the shortcomings of competition law for what regards online platforms and ecosystems. On one side, the choice of addressing "unfair" practices directly by prohibiting them through a closed list of obligations has the merit of providing a relatively simple remedy to a majority of the symptoms diagnosed by the literature and by stakeholders' complaints, so that – if properly implemented – the most egregious anti-competitive or abusive practices performed by the largest digital platforms should cease or at least become easier to be sanctioned with certainty. On the other side, the problem identified in the literature review was deeper than the simple presence of instances of abusive conduct which were going undetected, as it lay in the fact that traditional competition law is arguably ill-equipped to fully capture these practices without relying on conceptual shortcuts. As discussed in Section 2.3.1. above, platforms and platform ecosystems have a set of distinctive features that are difficult to account for using classic competition law concepts and instruments without having to "overstretch doctrine",⁴⁰⁶ and several of these characteristics are also behind the competitive problems raised by platforms and ecosystems.

Let us make an example based on the analysis performed in the previous chapters. The fact that Apple is able to engage in the kind of unfair practices targeted by the obligations discussed above, excluding competitors from the iOS ecosystem or forcing them to compete with its own first-party offerings under uneven conditions, is not a question of "dominance" in the traditional sense⁴⁰⁷ but rather of the very *architecture* of the iPhone-iOS ecosystem, which integrates device, OS and app store in a single "walled garden" offering and couples it with users' tendency to single-home when it comes to smartphones to unilaterally set the rules for its own ecosystem. As Article 101 TFEU covers anticompetitive *agreements* and Article 102 TFEU requires a finding of dominance to judge a practice as abusive, this cannot be properly captured by competition law unless we take the conceptual shortcut of defining a single bottleneck aspect of the ecosystem as a separate market from the rest of the Apple ecosystem,⁴⁰⁸

⁴⁰⁶ Nicolas Petit and David J. Teece, "Innovating Big Tech Firms And Competition Policy: Favoring Dynamic Over Static Competition" (see note 166).

⁴⁰⁷ According to Jacobides and Lianos (see note 69), Apple's 17% market share would prevent it from being found as dominant in the smartphones market.

⁴⁰⁸ As the Commission has done, for instance, when it preliminarily found in *Apple - App Store Practices (music streaming)* that "Apple has a dominant position in the market for the distribution of music streaming apps through its App Store" (see European Commission, "Antitrust: Commission sends Statement of Objections to Apple on

find dominance there and then establish that such dominance has been leveraged to engage in abusive conduct.⁴⁰⁹ But even if we do so, such an approach fails to appreciate (a) “the anticompetitive effects *at the level of the Apple ecosystem*”⁴¹⁰ and (b) the fact that Apple is not merely “dominant” in its own ecosystem – it is the *owner* of the platform on which the ecosystem relies, and as such has a direct control over its governance mechanisms when competing downstream against its own business users: which conditions an app must satisfy and a developer must agree to in order to access the App Store, which apps, product, services and web pages do iOS and Siri steer users towards, up until which hardware features are available to complementors to rely on when developing complementary apps and services.

By tackling individual practices directly, the DMA does not address *this* issue – nowhere in the DMA a new standard of proof is introduced to determine whether a certain course of conduct is anti-competitive or abusive or not which relies on the specific features of the role of orchestrators rather than on the finding of dominance in a relevant market. Under the DMA, a practice is “unfair” if it enacted by a gatekeeper and it is forbidden under the *exhaustive* list of 22 obligations contained in Articles 5, 6 and 7 DMA, and, once an undertaking has been designated as a gatekeeper, no further analysis is required to determine whether the practices it engages in are the result of its gatekeeping position or the normal way of conducting business in its sector – it is simply assumed that the former option will be the case.⁴¹¹ This means that anti-competitive, abusive or unfair practices that will emerge or become prevalent after the adoption of the DMA, or even current ones that did not make their way into the compromise text during the legislative process,⁴¹² will need to be assessed in the same way they have been assessed pre-DMA so far – namely, through traditional competition law enforcement and other sectoral rules such as the P2B Regulation. The same will be true for practices which do involve services not included among “core platform services” or which are enacted by platform firms

App Store rules for music streaming providers”, 2021, https://ec.europa.eu/commission/presscorner/detail/en/ip_21_2061).

⁴⁰⁹ Michael G. Jacobides and Ioannis Lianos, "Ecosystems And Competition Law In Theory And Practice" (see note 69).

⁴¹⁰ *Ibid.* (emphasis added).

⁴¹¹ Take as an example Booking.com’s concerns with the disintermediation provisions discussed above – if Booking.com were to be designated as a gatekeeper upon the entry into force of the DMA, preventing business users (hotels) from accessing end users’ contact information would be categorised as an unfair practice (*for Booking.com only*) stemming from its position as a gatekeeper, despite it simply being an element of the prevalent business model in the OTA sector.

⁴¹² See the example of the lock-in of business users for what regards cloud services mentioned in the discussion of Art. 6(6) DMA above.

that, by virtue of their limited size or user base, will not be designated as gatekeepers⁴¹³ and thus will fall outside of the scope of application of the DMA. To make another example from the obligations analysed above, setting up barriers to *end* users' ability to switch between services and subscriptions is now forbidden under the DMA, while doing the same for *business* users is not despite the many complaints of business user lock-in due to the lack of data portability and interoperability between cloud service providers emerged during the OPC. This difference is not due to the fact that the former case fits some form of new "abuse of ecosystem orchestrator position" or "ecosystem failure" test, or whatever other new theory of harm introduced by the DMA, while the latter does not – simply, it is due to the fact that the first practice appears in the DMA's list of obligations,⁴¹⁴ while the second one does not. This represents an inherent limitation of the DMA since, if new technologies and new platform business models were to lead to the emergence of new practices by gatekeepers, the DMA will need periodic legislative updates in order not to lag behind new developments in the digital sector.

This finding is not only true for the kind of intra-ecosystem competition that is the focus of this dissertation, but it can reasonably be generalised to the competition issues raised by platforms and ecosystems in general. The obligations that were not included in the analysis as they were not primarily concerned with intra-ecosystem competition issues share the same characteristic of prohibiting and mandating specific courses of behaviour, and while a satisfying degree of inter-ecosystem competition has been argued in the literature to be a potential remedy to insufficient intra-ecosystem competition,⁴¹⁵ the same limitation described above applies – the use of a closed list of practices precludes the use of the DMA to scrutinise and eventually sanction other types of conduct that have not been explicitly included.

Another, parallel consequence of such a closed-list approach is that, exactly how practices excluded from the list will not be covered by the DMA regardless of their competitive nature, once a practice is included among the DMA obligations all undertakings designated as gatekeepers will be prohibited from engaging in such practice regardless of whether it would amount to an anticompetitive conduct or an abuse of dominant position or not when applied to

⁴¹³ While it may be counterintuitive that undertakings not meeting the Art. 3 DMA criteria for designation as gatekeepers may enjoy the kind of market power behind the unfair practices targeted by the DMA, this may be (or become) the case for platforms that differentiate themselves by catering to specific niches of users or types of interactions.

⁴¹⁴ Art. 6(6) DMA.

⁴¹⁵ Michael G. Jacobides and Ioannis Lianos, "Ecosystems And Competition Law In Theory And Practice" (see note 69).

a gatekeeper's specific business model. As shown in the previous chapter with the OTA sector concerns, a practice that is problematic when performed by certain actors (e.g., depriving business users from audience data required to run analytics, improve their offerings and personalise them) can be essential for a subset of them to continue operating a customer-friendly business model (limiting hotels' possibility to reach to guests allows it to offer refundable bookings while reducing the risk its fees will be bypassed after a successful match). As the practices targeted by Articles 5, 6 and 7 DMA are considered to be unfair *a priori*, the DMA allows undertakings to rebut their designation as gatekeepers as a whole but not the unfairness of the banned practices once designation has happened. This means that gatekeepers whose business model sits uneasily with the new obligations, or who have even more serious concerns tied to their ability to effectively govern their ecosystem as seen above with cybersecurity, spam and illicit offerings, will not be able to justify their conduct on these grounds in the way they would be able to invoke efficiency claims and positive consumer welfare effects during a competition law proceeding.

While the risk of capturing practices that would raise concerns if covered can be partially addressed by the Commission (albeit within the limits of what the current text makes possible) through the adoption of delegated acts under Article 9 or 12(2)(c) DMA, in order to specify avenues to ensure "effective compliance" while taking into account the concerns emerged for specific obligations and business models,⁴¹⁶ this is not the case for the former issue of not capturing practices not explicitly included in the DMA's final text. Both extending the scope of application of existing obligations to cover practices, services or users currently not covered and adding new obligations and new "core platform services" to the DMA to keep up with market and technological developments will require a market investigation under Article 19 DMA, and while in the former case an implementing act by the Commission will be sufficient to update the current list of obligations,⁴¹⁷ in the latter one a new legislative proposal amending the DMA will need to be tabled and to undergo the ordinary legislative procedure.⁴¹⁸ In both cases, in the meantime the practices concerned will remain in the field of traditional competition law, where all the conceptual and enforcement limitations emerged in the literature review will continue to apply as before.

⁴¹⁶ For instance, the concerns of OTAs about being bypassed by hotels could be addressed if the Commission specified that it would consider providing business users access to end users' contact data only after the platform has been compensated for its customer acquisition efforts as sufficient to ensure compliance with Art. 6(10) DMA.

⁴¹⁷ Art. 12 DMA.

⁴¹⁸ *Ibid.*, Art. 19(3).

7. Concluding remarks

This dissertation began with a literature review that showed how digital platforms and ecosystems have a set of specific features (e.g., strong network effects, barriers to entry due to strong economies of scale and data advantages, nongeneric complementarities) which tend to push markets where platforms operate towards concentration⁴¹⁹ and which, together with the governance functions exercised by platform owners, traditional competition law concepts can struggle to properly account for.

Through an analysis of the new obligations introduced by the DMA, with a specific focus on those concerned with intra-ecosystem competition in particular, this dissertation has attempted to assess to what extent such gap in EU antitrust legislation has been bridged by the introduction of new special responsibilities for so-called “gatekeepers” under the DMA. At the same time, we must remember that, while its two objectives of “contestability” and “fairness” come very close to the competition law purposes of preventing foreclosure of effective competition and abuse of dominance – to the point that the DMA has been described as a “lost child of competition law”⁴²⁰ – the DMA is *not* exactly a piece of antitrust legislation. It has been adopted under the EU’s general Single Market legal base, Article 114 TFEU, it presents some significant procedural and institutional differences compared to competition law, and the documentation supporting its proposal relied not only on past competition cases to be codified and generalised, but also on cases which are still open and pending a final decision by the Commission,⁴²¹ expert reports, academic contributions, as well as observations and complaints raised by stakeholders in the OPC and other participatory activities which were not only focused on competition issues but on the fairness of digital markets more in general. As an example of the “more regulatory” approach to antitrust enforcement,⁴²² the DMA integrates the already-existing competition law toolkit by directly prohibiting a list of “unfair” practices encompassing a large share of the kinds of conduct which have emerged as problematic for competition law in the academic literature and in antitrust circles. It does not, however, attempt

⁴¹⁹ Michael G. Jacobides and Ioannis Lianos, "Regulating Platforms And Ecosystems: An Introduction" (see note 40).

⁴²⁰ Alexandre de Streel and Pierre Larouche, "The European Digital Markets Act: A Revolution Grounded On Traditions" (see note 195).

⁴²¹ For instance, *Amazon Buy Box*, for which the commitments offered by Amazon are yet to be made binding by the Commission after the recent expiration of the time frame for interested third parties to offer comments, or the various *Apple App Store practices* cases, of which only *Apple App Store Practices (music streaming)* resulted so far in preliminary findings warranting a Statement of Objections being sent to Apple, while *Apple App Store Practices (e-books/audiobooks)* and *Apple App Store Practices* are still in the investigation stage.

⁴²² Giuseppe Colangelo, "Evaluating The Case For Regulation Of Digital Platforms" (see note 137).

to bridge the conceptual gap between platforms and competition law by providing the latter with the instruments to engage *directly* with questions of ecosystem structure, with the central, orchestrating role played by platform owners and with the dual role the latter can play as both an orchestrator and a competitor in the same (multiproduct/multiservice) ecosystem it governs.

This is not a general critique of the approach of the DMA as a whole, but rather an acknowledgement of its limitations. On one hand, in fact, it must be conceded that the most egregious “unfair” practices put in place by large platforms will now be caught and sanctioned more promptly (which is important, as it has been noted that the length of antitrust proceedings was particularly relevant in motivating the Commission to propose the DMA)⁴²³ and, as there will be no longer need to stretch antitrust doctrine to cover these practices, with more legal certainty.⁴²⁴ On the other hand, however, a consequence of the closed-list approach chosen by the Commission is that the DMA achieves this objective by trading off both the capacity to capture other forms of anti-competitive or abusive conduct which have not made their way into the compromise text, and (at least partially) the flexibility needed to avoid capturing welfare-enhancing (or, in a few critical cases, even needed) gatekeeper practices. As discussed above, this latter shortcoming can be partially addressed by the Commission through careful specification of the avenues to comply with problematic obligations. What limits the DMA’s capacity to fully bridge the gap between platform and ecosystems and competition law, instead, is the choice to address the symptoms (an alleged *enforcement gap*)⁴²⁵ while refusing to engage with their root cause (a *conceptual gap*).

It is true that most of the anti-competitive or abusive practices identified in the literature will either cease or be sanctionable, so that it is reasonable to expect the EU competitive landscape to become less distorted, at least for what regards intra-ecosystem competition, and there is a merit to that. At the same time, however, antitrust enforcement outside of the scope of application of the DMA will continue business-as-usual with all the added difficulties in dealing with the characteristic features of digital platforms and ecosystems evidenced in this dissertation, or require periodic (and time-consuming) updates to the DMA. This represents, possibly, the biggest limitation to the DMA’s ability to bring antitrust enforcement on step with the developments introduced by platforms and ecosystems.

⁴²³ Alexandre de Streel and Pierre Larouche, "The European Digital Markets Act: A Revolution Grounded On Traditions" (see note 195).

⁴²⁴ Nicolas Petit, "The Proposed Digital Markets Act (DMA): A Legal And Policy Review" (see note 207).

⁴²⁵ Alexandre de Streel and Pierre Larouche, "The European Digital Markets Act: A Revolution Grounded On Traditions" (see note 195).

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⁴²⁶ The *OJ* numerical references of the DMA will only become available with the publication of the DMA on the *OJ*, which has yet to happen as of 23 September 2022.

Appendix I. Complete table of available legislative documents

Date	Document	Document type	Available on
15/12/2020	OJ(2020) 2361	Agenda of Commission meetings	Ec.europa.eu.eu
15/12/2020	PV(2020) 2361	Minutes of Commission meetings	Ec.europa.eu
17/12/2020	Commission DMA proposal	Commission proposal	Consilium.europa.eu; Europarl.europa.eu
17/12/2020	Impact Assessment Report	Commission IAR	Consilium.europa.eu; Europarl.europa.eu
17/12/2020	Impact Assessment Report Executive Summary	Commission IAR	Consilium.europa.eu; Europarl.europa.eu
17/12/2020	Impact Assessment Report Annexes	Commission IAR	Consilium.europa.eu; Europarl.europa.eu
17/12/2020	Regulatory Scrutiny Board opinion	Opinion	Consilium.europa.eu; Europarl.europa.eu
20/01/2021	Regulatory Scrutiny Board opinion (Reviewed)	Opinion	Consilium.europa.eu; Europarl.europa.eu
05/03/2021	Opinion of Czech Parliament	National position	Consilium.europa.eu
22/03/2021	Contribution of Czech Senate	National position	Europarl.europa.eu
22/03/2021	Opinion of Czech Republic senate	National position	Consilium.europa.eu
06/04/2021	Contribution of German Bundesrat	National position	Europarl.europa.eu
04/05/2021	Committee on Transport and Tourism (TRAN) Draft Opinion	Draft opinion	Europarl.europa.eu
06/05/2021	Draft Progress Report	Report	Consilium.europa.eu

17/05/2021	Progress Report		Report	Consilium.europa.eu
31/05/2021	Committee on Culture and Education (CULT) Draft Opinion		Draft opinion	Europarl.europa.eu
01/06/2021	TRAN amendments		Amendments to draft opinions - Committee documents	Europarl.europa.eu
01/06/2021	Committee on the Internal Market and Consumer Protection (IMCO) draft report (amendments)		Draft report	Europarl.europa.eu
03/06/2021	Committee on Legal Affairs (JURI) draft opinion		Draft opinion	Europarl.europa.eu
16/06/2021	Opinion of the Senate of the States General (NL)		National position	Consilium.europa.eu;
22/06/2021	Committee on Civil Liberties, Justice and Home Affairs (LIBE) draft opinion		Draft opinion	Europarl.europa.eu
29/06/2021	CULT amendments		Amendments to draft opinions - Committee documents	Europarl.europa.eu
30/06/2021	JURI amendments		Amendments to draft opinions - Committee documents	Europarl.europa.eu
30/06/2021	JURI draft opinion proposal		Amendments to draft opinions - Committee documents	Europarl.europa.eu
07/07/2021	Committee on Industry, Research and Energy (ITRE) draft opinion		Draft opinion	Europarl.europa.eu
07/07/2021	Committee on Economic and Monetary Affairs (ECON) draft opinion		Draft opinion	Europarl.europa.eu
07/07/2021	IMCO amendments		Amendments to draft opinions - Committee documents	Europarl.europa.eu

07/07/2021	IMCO amendments	Amendments to draft opinions - Committee documents	Europarl.europa.eu
07/07/2021	IMCO amendments	Amendments to draft opinions - Committee documents	Europarl.europa.eu
07/07/2021	IMCO amendments	Amendments to draft opinions - Committee documents	Europarl.europa.eu
07/07/2021	IMCO amendments	Amendments to draft opinions - Committee documents	Europarl.europa.eu
27/07/2021	LIBE amendments	Amendments to draft opinions - Committee documents	Europarl.europa.eu
31/08/2021	EESC opinion	Opinion	Consilium.europa.eu
09/09/2021	ECON amendments	Amendments to draft opinions - Committee documents	Europarl.europa.eu
09/09/2021	ECON amendments	Amendments to draft opinions - Committee documents	Europarl.europa.eu
09/09/2021	ECON amendments	Amendments to draft opinions - Committee documents	Europarl.europa.eu
10/09/2021	ITRE amendments	Amendments to draft opinions - Committee documents	Europarl.europa.eu
10/09/2021	ITRE amendments	Amendments to draft opinions - Committee documents	Europarl.europa.eu
10/09/2021	ITRE amendments	Amendments to draft opinions - Committee documents	Europarl.europa.eu
29/09/2021	TRAN opinion	Opinion	Europarl.europa.eu

04/10/2021	CULT opinion		Opinion	Europarl.europa.eu
12/10/2021	Presidency 3rd compromise text for working party on 18/10/2021		Presidency proposal	Consilium.europa.eu
12/10/2021	Presidency proposal for the Annex (methodology)		Presidency proposal	Consilium.europa.eu
18/10/2021	LIBE opinion		Opinion	Europarl.europa.eu
28/10/2021	ECON opinion		Opinion	Europarl.europa.eu
05/11/2021	General Approach in preparation for COMPET Council (25-26/11/2021)		General Approach	Consilium.europa.eu
05/11/2021	JURI opinion		Opinion	Europarl.europa.eu
16/11/2021	General Approach COREPER -> Council		General Approach	Consilium.europa.eu
22/11/2021	Joint Statement by DEN/ITA/SPA/POR		National position	Consilium.europa.eu
23/11/2021	Statement by LUX / Statement by GER		National position	Consilium.europa.eu
24/11/2021	Statement by AUS		National position	Consilium.europa.eu
24/11/2021	ITRE opinion		Opinion	Europarl.europa.eu
30/11/2021	Report on DMA proposal		Report	Europarl.europa.eu
08/12/2021	IMCO amendments		Amendments to A documents (Reports)	Europarl.europa.eu
08/12/2021	Amendments		Amendments to A documents (Reports)	Europarl.europa.eu
08/12/2021	Amendments		Amendments to A documents (Reports)	Europarl.europa.eu

08/12/2021	Amendments		Amendments to A documents (Reports)	Europarl.europa.eu
08/12/2021	Amendments		Amendments to A documents (Reports)	Europarl.europa.eu
08/12/2021	Amendments		Amendments to A documents (Reports)	Europarl.europa.eu
08/12/2021	Amendments		Amendments to A documents (Reports)	Europarl.europa.eu
15/12/2021	Amendments adopted at first reading		Text adopted	Europarl.europa.eu
06/01/2022	4-column table for 1st trilogue (11/01/2022)		4-column	Consilium.europa.eu
26/01/2022	PV(2021) 2402		Agenda of Commission meetings	Ec.europa.eu
09/02/2022	DMA Briefing		Briefing	Europarl.europa.eu
22/02/2022	4-columns of Annex for trilogue		4-column	Europarl.europa.eu
25/02/2022	4-column table for 3rd trilogue (01/03/2022)		4-column	Europarl.europa.eu
01/03/2022	3rd trilogue agenda		Trilogue agenda	Europarl.europa.eu
18/03/2022	4-column table for 4th trilogue (24/03/2022)		4-column	Consilium.europa.eu; Europarl.europa.eu
18/03/2022	Presidency proposal for renewed trilogue mandate		Presidency proposal	Consilium.europa.eu
21/03/2022	4-column table Annex for 4th trilogue (24/03/2022)		4-column	Consilium.europa.eu
23/03/2022	PV(2021) 2409		Minutes of Commission meetings	Ec.europa.eu
24/03/2022	4th trilogue agenda		Trilogue agenda	Europarl.europa.eu

24/03/2022	4th trilogue agenda		Trilogue agenda	Europarl.europa.eu
27/04/2022	PV(2021) 2412		Minutes of Commission meetings	Ec.europa.eu
03/05/2022	Analysis of final compromise text		Final text	Consilium.europa.eu
11/05/2022	Letter of COREPER President to IMCO-EP President		Final	Consilium.europa.eu
12/05/2022	Provisional Agreement resulting from interinstitutional negotiations		Agreed text resulting from interinstitutional negotiations	Europarl.europa.eu
05/07/2022	EP position adopted at first reading		Final text	Europarl.europa.eu
05/07/2022	Legislative resolution P9_TA(2022)0270 (adopted text)		Final text	Europarl.europa.eu
06/07/2022	Outcome of the European Parliament's first reading		Voting outcome	Consilium.europa.eu
11/07/2022	"I/A" item note		Secretariat/COREPER note	Consilium.europa.eu
11/07/2022	Final DMA text (not signed)		Final text	Consilium.europa.eu
18/07/2022	Voting outcome in the Council		Voting outcome	Consilium.europa.eu
14/09/2022	Final DMA text (signed)		Final text	Consilium.europa.eu

Appendix II. Table of OPC search keywords

Methodological note: for keywords with the same root, the shorter word has been chosen, as Excel's search function would return results for the longer one as well (e.g., searching for "sideload" would return results for both "sideload" and "sideloading", but not vice-versa).

Obligation	Keywords
5(3)	"parity", "MFN", "most favoured nation", "most favored nation"
5(4), 5(5)	"parity", "steer"
6(2)	"not available", "publicly available", "not public", "non-public", "seller data", "business user data"
6(3)	"uninstall", "un-install", "deinstall", "de-install", "default", "prompt", "setting"
6(4)	"install", "default", "prompt", "setting", "sideload", "side-load"
6(5)	"rank", "self-preferencing"
6(6)	"switch", "multi-home", "multihome", "multi-homing", "multihoming", "internet access"
6(7)	"interoperate", "interoperability"
6(10)	"disintermediation", "access to data", "business user data", "seller data"
6(12)	"access conditions", "conditions of access", "pricing", "terms and conditions"

Annex: Dissertation summary

Digital platforms are multi-sided digital frameworks that enable, shape and provide governance for interactions between different groups of participants, without considering the possibility to develop external complements as a necessary condition for such definition. Such platforms create value by mediating and facilitating interactions between different *sides*, frequently two but also three (or rarely more) in the case of more complex platforms at the heart of ecosystems. A distinctive feature of platforms is *network effects*, which can be positive or negative and same-side or cross-side and which lead the value of the platform to grow (or decline) following a *nonlinear* or *convex* growth pattern. This makes it rational for platforms to prioritise growth over short-term profits, by deploying various strategies and design choices to grow their user base, often including the subsidization of one side to attract (profitable) users on the other one. Together with other features such as high multi-homing costs switching costs, low demand for differentiation, economies of scale of scope and of learning, network effects facilitate markets where platforms compete to be horizontally concentrated and to “tip” towards winner-takes-all dynamics.

Platforms are also often (but not always) at the centre of broader *platform ecosystems*, groupings of firms comprising the platform owner and all of its complementors which Jacobides, Cennamo and Gawer describe as having an “hub and spoke” form and as enabling participating firms to deal with *nongeneric, unique or supermodular* complementarities which happen at the level of role through technological modularity. This allows the platform to become more valuable to end users thanks to the availability of complements, and complementors to access the platform’s large user base and to offer their product of service as a part of a set of complementary, value-enhancing offerings rather than as a stand-alone.

Platform owners also engage in governance, both at the platform level (to affect individual behaviour through content moderation, terms of services, algorithms and so on) and at the ecosystem level (to determine rules governing access to the ecosystem, value-sharing and conflict resolution). Orchestration by platform owners is important to mediate between the interests of different groups of users, to prevent and deal with market failures and to properly manage network effects to ensure that participants create value for one another. Governance mechanisms have been conceptualised by Tiwana, who identified three different dimensions of platform governance - *decision rights partitioning* (who has the primary authority for what kind of decisions), the *control portfolio* (control mechanisms to reward and punish behaviour,

including gatekeeping, process control, metrics and relational control) and *pricing policies*. With the necessary adjustments, Tiwana's conceptualisation can be generalised from its original focus on software platforms to be applied to platform ecosystems more in general. Behaviour in digital platforms and ecosystems is also constrained by the very structure and algorithms of the platform it takes place on, which allow not only to reduce a platform's structural complexity but also to deploy "code" for the purposes of platform governance by constraining and enabling on the very possibility to engage in a determinate kind of behaviour. Digital architectures also enable the collection and standardisation of data for subsequent use by a platform's algorithms, by channelling user activity along newly-created actions which can be easily recorded into distinct data fields (a concept named *encoding* by Alaimo and Kallinikos).

The powerful position that platform owners play as orchestrators of their own platforms and ecosystems, coupled with the tendency towards concentration mentioned above and with claims that platforms so far have been underregulated, has led towards the emergence of political calls for better scrutiny of the power of digital platforms in the light of the risks of social costs they pose which current regulatory authorities are ill-equipped to deal with. These include concerns regarding information reliability, new divisions in the public sphere, the integrity of the democratic process, illicit or harmful content, as well as the exploitation of market power through anti-competitive and abusive behaviour. Regarding the latter concern, current antitrust enforcement is often criticised as ineffective at constraining the new type of market power of Big Tech firms through *ex post* investigations. Going deeper than issues of speed of enforcement, however, the peculiar features of digital platforms and ecosystems call into questions the efficacy of some of the basic concepts and assumptions on which competition law enforcement relies.

Traditional methods to define relevant markets, find dominance within them and establish the abusive or anti-competitive nature of a certain conduct struggle to account fully for competition that happens in or between ecosystems of complementary products and which involves profit-maximisation across different sides and across different offerings. This forces competition authorities to define different parts of the same ecosystem as separate markets and then find instances of leveraging of dominance from a market to the other, stretching antitrust doctrine and failing to account for ecosystem-level anti-competitive effects, as well as to struggle to identify exploitation of other sides of a platform when this does not translate into a direct consumer harm (e.g., because of zero pricing on the end user side).

Specific competition concerns raised in the academic literature regard unfair surplus sharing terms, as well as situations in which platforms play a “dual role”, competing with their own business users or complementors in the same marketplaces they operate as orchestrators, and thus might be tempted to use their governance position to tilt the playing field in their own favour. Other concerns regard incumbents’ competitive advantages due to the large amount of data that they manage to accumulate and to leverage to further improve their own offerings, advantages which allegedly are difficult – if not impossible – to replicate as incumbents expand them through feedback loops and strategic mergers and acquisitions while also denying access to data to (potential) competitors. Mergers and acquisitions by large platforms also raise concerns with the use of “killer acquisitions” to escape the potential competitive pressure posed to either one of their offerings or with the whole ecosystem by acquired firms.

In the EU, the attempt to deal with these competition concerns took the form of the Digital Markets Act (DMA), a piece of legislation which is part of a broader round of expansion of the existing body of EU regulation on the digital sector and which focuses on ensuring “fairness” and “contestability” in digital markets by imposing a list of special obligations on large platforms designated as “gatekeepers”.

The emerging academic literature, however, noted how it is not easy to collocate the DMA on either side the (partial) conceptual overlap between regulations implementing competition law and sectorial regulation, as on one hand some of its propositions and procedural choices are difficult to follow from a “pure” competition law standpoint, while on the other hand important differences remain both from sector-specific regulation and from general regulatory frameworks. This mix of the purposes and features has led the DMA to be ascribed to the category of the “more regulatory” approach to competition law by Colangelo – an approach that Larouche and de Streel ascribe more to a desire to cure an enforcement failure due to the lengthy duration of competition law proceedings rather than to address the difficulties caused by the specificities of digital platforms and ecosystems.

This dissertation attempted to assess to what extent the obligations on gatekeepers introduced by the DMA bridge the gap between competition law and platform ecosystems evidenced in the literature review, by focusing in particular on intra-platform competition instances where the platform owner competes with its own business users.

The research design followed for this purpose involved the individual analysis of 11 obligations introduced by the DMA, which have been singled out for their more direct

connection with gatekeepers' practices distorting competition with their own complementors and business users. For each of these obligations, the analysis aimed at (a) describing the content of the obligation at hand, (b) identifying the purpose behind the introduction of that specific obligation (i.e. the kind of practice, gatekeeper behaviour, market failure *et similia* that the Commission was concerned with when introducing it), (c) tracing the origin of changes to the Commission proposal, in those cases where the final text of the obligation differs markedly from the original one, and (d) identifying key stakeholders' support for and/or concerns with the obligation under examination. This formed the basis for a critical analysis highlighting common themes in the purposes and concerns emerged and discussing individual obligations for which particularly relevant concerns emerged; this critical analysis was then followed by a discussion attempting to bring these findings in touch with the competition concerns which have been individuated in the literature review. The source material for this work consisted in the final text of the DMA, the original text of the DMA proposal and of the supporting documents that accompanied it, past and ongoing competition cases mentioned by the Commission in its analysis, archival legislative documents which are available through the websites of the Commission, of the European Parliament and of the Council and stakeholders' submissions to the Open Public Consultation that preceded the DMA proposal and their feedbacks that followed the publication of the DMA proposal. This archival work was also complemented by first-hand observations gathered during a three-months work-from-home internship at the Italian Permanent Representation to the EU.

The 11 obligations selected for analysis were grouped in four categories according to the kind of practices they target. The first group targets parity clauses and similar practices which shield the gatekeeper from competitive pressures from their business users through the use of other sales channels than the gatekeepers' services, and includes a ban on MFN clauses (Art. 5(2) DMA), a ban on prohibiting business users from communicating off-platform offers to end users (Art. 5(3) DMA) and a duty to allow end users to access to app content, subscriptions and features acquired off-platform (Art. 5(4) DMA). The second group targets self-preferencing practices that could allow gatekeepers to exploit their position to favour their own products and services, and includes a duty to allow un-installation of any app and to allow to change defaults on a gatekeeper's OS (Art. 6(3) DMA), a duty to allow and enable installation of third-party apps and app stores (Art. 6(4) DMA), a ban on restrictions on switching between apps and services (Art. 6(6) DMA) and a duty to provide third-party providers with interoperability with the same hardware and software features available to gatekeeper hardware and services (Art. 6(7) DMA). The third group address gatekeepers' use of allegedly unfair

practices involving business users' data, and includes a ban on using non-public business user data to compete with them (Art. 6(2) DMA) and a duty to provide business users with real-time access to data generated by their activity (including data provided or generated by their end users) (Art. 6(10) DMA). The fourth group coincides with a single obligation targeting the imposition of unfair or discriminatory access conditions through a duty to apply fair, reasonable and non-discriminatory access conditions to gatekeepers' app stores, search engines and social networking services (Art. 6(12) DMA).

Several findings emerged from this work. First of all, some of the obligations already emerged as potential candidates for further specification under Art. 8 DMA, as their wording leaves scope for interpretation that might otherwise need to be clarified through legal proceedings before the CJEU. Two categories of concerns have also emerged. The first one regards the questions of compatibility that have emerged between certain obligations and specific business models, of which the most notable example is represented by the concerns raised by the OTA sector against provisions allowing business users to contact and establish a direct relationship with their own customers bypassing the intermediary role played by the platform, as this would threaten their refundable bookings business model. This is the result of the business model agnostic approach reflected in the assumptions made in the DMA's supporting documentation, which misses out on how the impact on the monetisation avenues available to different business models, and thus on their profitability and – potentially – even on their economic viability, will depend on the specific business model of the firm at hand. In the second category, two specific obligations have emerged as potentially problematic as they risk to vulnerabilities in terms of end user cybersecurity (by shifting the burden on the end user) and of the proliferation of spam and illicit offerings by subjecting platform governance mechanism to broad restrictions that seem to fail to appreciate the platform's role beyond the provision of matches between users on different sides and in the management of negative network effects and in the fight against illegal and unwanted content.

The critical analysis also found that the obligations introduced by the DMA address competitive issues by directly prohibiting individual “unfair” practices. This finding constitutes the starting point of the discussion contained in the last chapter of the dissertation, which recognises how such a closed-list approach has the merit of providing a relatively simple and fast remedy to many of the competition issues identified in the literature, but also the demerit of not introducing the necessary instruments for general competition law to properly assess the conduct of platform owners outside of the scope of the list of practices banned by the DMA – for instance, a new standard of proof or theory of harm to assess platforms' practices in the

light of the specific features of the role of orchestrators rather than of the dominance findings in a relevant market. Under the DMA, a practice is “unfair” if it enacted by a gatekeeper and it is forbidden under the *exhaustive* list of 22 obligations contained in Art. 5, 6 and 7 DMA, while it is not addressed at all if it falls outside of the list. This does not address the conceptual gap due to the fact that platforms and platform ecosystems have a set of distinctive features that are difficult to account for using classic competition law concepts and instruments without having to overstretch doctrine, and has two implications. The first one is that, once a practice is included among the DMA obligations, all gatekeepers will be prohibited from engaging in it regardless of whether it would amount to an anticompetitive conduct or an abuse of dominant position or not when applied to a specific gatekeeper’s business model, leading to the business model and governance concerns described in the critical analysis. The second one is that anti-competitive, abusive or unfair practices that do not appear in the list of obligations, either because they did not make their way into the compromise text or because they will emerge or become prevalent in the future following market and technological developments, will need to be assessed in the same way they have been assessed pre-DMA so far – namely, through traditional competition law enforcement and other sectoral rules. such as the P2B Regulation. This represents an inherent limitation of the DMA’s capacity to to bring antitrust enforcement on step with the developments introduced by platforms and ecosystems, as it limits the capacity of the DMA not to lag behind the emergence of new technologies and new platform business models (and thus, of new practices) without the need for periodical legislative updates.