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Chair of IO & Competition Theory

# Examining the European Commission's antitrust investigation into Apple's App Store: an analysis of the impact on competition in digital markets

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## 1. Introduction

In today's rapidly evolving digital landscape, the dynamics of app marketplaces have become central to the functioning of our interconnected world. At the forefront of this transformative space stands Apple, a tech giant whose App Store has irrevocably shaped the way we access, distribute, and consume digital applications. This thesis navigates the intricate terrain of Apple's dominance in the digital app market, exploring the allegations brought forth by the European Commission.

Our discussion begins in the first chapter, where we delve into the Commission's claims and lay the foundation for understanding the intricate ecosystem of digital app markets, replete with key actors wielding considerable market power. Chapter two takes a deeper dive into the implications of Apple's practices, dissecting their impact on the competitive environment, delving into the legal concept of abuse of dominance, and unveiling the various strategies through which Apple leverages its market position. The chapter culminates in a discussion of the contentious App Tracking Transparency policy. Finally, in the third chapter, we grapple with the unique challenges faced by regulators in this digital realm and illuminate the crucial role of the Digital Markets Act in addressing these issues head-on.

As we walk through this multifaceted landscape, it becomes clear that the digital app market's equilibrium hangs in the balance, with gatekeepers undergoing significant pressure from authorities, Apple's practices under scrutiny and the regulatory framework poised for transformation.

## 2. Introducing the European Commission’s allegations against Apple

In 2020, Apple became the world’s most valuable publicly traded company. However, its longstanding disputes with app developers and main competitors have shed a light on how the company actually runs the app store behind closed doors, often at the expense of consumers’ welfare and to the detriment of competitive stability in the market. On March 13$^{th}$ 2019, Spotify accused Apple of stifling competition in a formal EU complaint. The company was blamed for making it difficult for rivals of Apple music to promote their subscription services without using Apple’s payment system. The European Commission launched official antitrust investigations on June 16th, 2020 to determine whether Apple's guidelines for app developers regarding the distribution of apps through the App Store are in violation of EU competition laws. The investigations are focused on two issues: restrictions on developers' ability to notify iPhone and iPad users of cheaper purchasing options outside of apps, and the requirement to use Apple's own exclusive in-app purchase system (for the distribution of paid digital content) .Moreover, other than charges by institutional bodies such as the European Commission, disputes with competitors (including Netflix, Epic Games, Tinder) have led to additional pressure on Apple to change its rules. The latter justified its commercial tactics by asserting that the

commission fees are required due to the services the store offers, such as security and user privacy protection.[1] To assess the legitimacy of Apple's practices and further understand the motives behind them, it is necessary to firstly analyze the mobile ecosystem of digital apps and the functioning of its markets.

### 2.1 The ecosystem of mobile apps

The digital apps market ecosystem refers to the interconnected network of stakeholders, technologies, and processes that support the development, distribution, and consumption of digital applications. The key players in this environment include developers, app stores, device manufacturers, operating system providers, and consumers. Developers create and publish applications, while app stores provide a platform for developers to distribute their apps to consumers. Device manufacturers and operating system providers provide the hardware and software platforms that enable consumers to run and access apps on their devices. In the Apple ecosystem, Apple has complete control over its ecosystem because it provides the hardware (iPhones), the mobile operating system (iOS), and the retail space. Every form of computing device has software programs, which are essentially what mobile apps are.They have greatly broadened the utility of today's mobile phones and thus encouraged their widespread popularity (in addition to other mobile devices), and have transformed internet retailing, electronic gaming, social networking and numerous more fields. The most dominant ones being: health and fitness (apps that help users track their physical activity, monitor their diet, or manage chronic conditions), entertainment (apps that provide a source of entertainment such as streaming services or virtual reality experiences), travel (apps that assist with travel planning, such as booking flights or hotels, or providing information on local attractions), education (apps that provide learning opportunities, such as language learning apps), news and media (apps that provide news updates, articles, or other forms of media), and utilities (apps that provide useful tools, such as weather apps or calculators).

The mobile apps industry has undergone a significant transformation in recent years. In the early days of the smartphone era, mobile apps were primarily simple games and utilities designed to showcase the capabilities of the new platform. However, as smartphones became more advanced and ubiquitous, the app market exploded, with millions of apps now available across various platforms. According to estimates, the app industry is a $1.7 trillion ecosystem worldwide. In the last ten years, the percentage of people over the age of 3 who use smartphones—the main platforms for apps—has increased dramatically, rising from 27% to 70%. One major driver of this growth has been the rapid advancements in mobile technology. Smartphones have become more powerful, with faster processors, more memory, and improved connectivity. This has enabled

[1] "Press Corner," European Commission - European Commission, June 16, 2020, https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1073.

developers to create more sophisticated and complex apps that offer users a wider range of functionality and experiences.

The industry has also seen a significant shift towards more personalized and context-driven experiences. Mobile apps are now designed to cater to individual user preferences and behaviors, leveraging data from sensors, social networks, and other sources to deliver personalized content and services. This trend is expected to continue as mobile technology evolves, with apps becoming even more personalized and context-driven in the future. Another significant change in the industry has been the integration of emerging technologies like artificial intelligence (AI), virtual and augmented reality (VR/AR), and the Internet of Things (IoT). Mobile apps now use AI and machine learning to analyze user data and provide personalized recommendations, while VR/AR technologies are being used to create immersive and engaging experiences.

The rise of the IoT has also opened up new opportunities for mobile apps to interact with a range of connected devices and sensors, allowing users to control and monitor their homes, cars, and other smart devices from their mobile devices. Overall, the mobile app ecosystem possesses certain characteristics, whether intentionally designed or naturally occurring, that set it apart from other ecosystems. One such aspect is the distinct method of app acquisition, as consumers almost exclusively obtain apps through downloads from app stores on their mobile devices. Additionally, the functionality of numerous mobile apps is influenced by the unique attributes of the devices themselves and limitations imposed by the controlling platforms within the ecosystem.

## 2.2 Actors in the market and market power

The mobile application system is intricate and involves a diverse range of stakeholders and technologies. Nonetheless, two dominant companies, Apple, Inc. and Google LLC, are responsible for the leading mobile operating systems that shape the existence and functioning of the majority of the world's applications. These firms manage vertically integrated distribution chains but differ in their approach to managing their app ecosystems. Despite their variations, both corporations act as crucial gatekeepers as they regulate and restrict the distribution of applications. Mobile devices rely on app stores, specifically The App Store by Apple and Google Play Store, as the primary means of making third-party apps accessible. The policies and technical standards enforced by these stores play a critical role in molding the mobile app ecosystem. While there have been previous attempts by entrepreneurs to introduce and sustain diverse mobile devices with distinct operating systems like Blackberry and Windows, the majority of modern "smart" mobile phones depend on the technology provided by Apple and Google.

These two distinct mobile app ecosystems are built on operating systems known as iOS and Android, which are used by most mobile devices. The default software store for all Android devices is the Google Play Store.

The only app shop accessible on iOS devices is the Apple App shop. Apps cannot be shared between different operating systems; for example, native iOS apps can only be used on iOS devices, whereas native Android apps can only be used on Android devices. Since Android users cannot access the Apple App Store and iOS users cannot access the Google Play Store, the dominance of the Play Store is not bound by the supremacy of the App Store, and vice versa. The App Store and the Play Store do not directly compete with one another. According to Statista, there were over 2.56 million apps in the Google Play Store and 1.847 million in the Apple App Store as of the first quarter of 2020.

The exclusive method for software distribution on iOS devices is through Apple's App Store. In contrast, the Google Play Store has a position of dominance as the primary app store for Android devices. Nevertheless, Google does allow users to install alternative app stores through a process known as sideloading. Certain Android device partners, like as Samsung, engage in the practice of pre-installing proprietary application stores on their devices. Prominent alternative Android application stores encompass Amazon's Appstore, Aptoide, F-Droid, and the Samsung Galaxy Store. In order to effectively target the complete pool of potential smartphone consumers in the United States, Europe, or worldwide, it is imperative for application developers to ensure that their software is available on both the software Store and the Play Store. Apple and Google are responsible for establishing the terms and conditions that app developers are required to accept in order to publish their software through the App Store and Play Store, respectively. As a result, app developers and industry observers agree that Apple and Google control the app distribution market on mobile devices, which confirms our initial assertion. Moreover, as of March 2023, Google and Apple control the smartphone operating system markets, with a 99% world share; 70.88% for Google's Android and 28.42% for Apple's iOS.[2]

Although Apple has a smaller user base, the average spending per capita by iOS users is higher. As a result, the App Store generates double the revenue compared to the Play Store. Apple and Google exert complete authority over their respective ecosystems by setting terms of use and conditions for accessing functionalities, imposing interoperability obligations, restricting or mandating data access, pre-installing or prohibiting certain applications, ranking apps in their stores, regulating payment methods, and more. Due to the vast number of applications available on the Play Store and the App Store, the ability of the two companies to control search results and discovery mechanisms can significantly impact competitive outcomes within these markets.

Reports indicate that 44% of users click on the first search result within app stores and 87% of users click on the first five results displayed. Furthermore, Apple and Google control advertisement and other functionalities, e.g. "discover" or "tip of the day." Typically, developers depend on paid advertising as a means to increase

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[2] Hausfeld. “Privacy by Default, Abuse by Design: EU Competition Concerns about Apple’s New App Tracking Policy.” *Hausfeld*, 15 Sept. 2023, www.hausfeld.com/en-us/what-we-think/competition-bulletin/privacy-by-default-abuse-by-design-eu-competition-concerns-about-apple-s-new-app-tracking-policy/. Accessed 20 Sept. 2023.

their popularity, since algorithms tend to favor the most frequently downloaded applications. This has led to a significant impact on the design, features, and access methods of millions of apps. There is no method for a third-party app store to challenge the App Store on iOS devices, as Apple has no plans to open iOS to alternative app stores. To present a legitimate competition to the Play Store, a third-party app store needs to satisfy two conditions: firstly, users should be able to easily install the app store, and secondly, the app store should offer popular apps that users are interested in. Additionally, the multi-sided structure of app stores creates robust network effects, whereby a greater number of applications stimulates more users and vice versa.

Both elements are crucial for maintaining a vibrant ecosystem. Once users have migrated to a large platform—such as an operating system and its app store, it is difficult for smaller competitors to attract users and app developers. The distribution of mobile apps through alternative methods such as third-party app stores, gaming platforms, or sideloading is typically not relevant to the mobile applications market. Additionally, these methods may not always be practical for users and have notable drawbacks when compared to pre-installed app stores, resulting in limited functionality. This results in network effects tipping the markets to concentration, so that consequently only one or a few players become dominant (i.e., Google and Apple in the context of our analysis). To entice complements, platforms are motivated to reduce barriers to entry while competition is ongoing. Once the market shifts towards a dominant player, the platforms then increase switching costs and leverage their market power to extract profits.

Lower complexity and more basic user interfaces, combined with diverse business models (in particular Android's free distribution) and less ecosystem fragmentation were key factors for the iOS and the Android to trigger the sort of bandwagon effect that allowed them to overcome Nokia's Symbian ecosystem and Microsoft's Windows Phone. Certainly, Apple and Google's dominant position is fortified by indirect network effects, which makes it extremely challenging for other platforms to penetrate the market.

By governing the ecosystem, both Apple and Google can stimulate the growth of network effects and capitalize on them to safeguard their market position. On the one hand, both Apple and Google provide a great service to consumers and app developers. App stores have significantly lowered barriers to entry and expansion and enabled new companies to access consumers. The full management in the hands of Apple and Google also enables them to regulate the ecosystem, foster innovation, limit unwarranted data collection and sharing, and safeguard consumers from fraudulent or low-quality products. By requiring that app stores only use their pre-approved methods, these companies allegedly try to increase convenience, speed up payment, and reduce developers' costs with billing.

All of the above are significant innovations that generate considerable gains in consumer welfare. On the other hand, due to their prominent standing in the market for mobile operating systems, Google and Apple hold a gatekeeper role in controlling the interaction between companies and app developers. This, among other

factors, is primarily due to their ability to manage the discovery of apps. Moreover, the adoption and utilization of alternative methods to access content on mobile devices, such as through web apps, are significantly lower than that of native apps. This is because apps offer a more immersive and sophisticated user experience and can leverage the hardware and operating system features of the mobile device, such as the camera or location services, to provide additional functionality. Furthermore, web apps and browsers depend on internet connectivity to function, which can be a limitation, whereas native apps have the ability to operate even when the device loses internet access.

As a result, many app developers do not currently consider websites and webapps as a feasible substitute or strong contenders to the major app stores in iOS and Android devices when it comes to distributing software for mobile devices. Apple's App Store operators promote the curation and centralized review of apps as an advantage. Tim Cook, the CEO of Apple, clarified that the App Store's management of software installation on iOS devices guarantees that downloaded apps satisfy Apple's strict criteria for privacy, performance, and security. This is crucial for maintaining the users' confidence in the company. The App Store Review Guidelines distinguish between apps and websites, stating that apps submitted to the App Store should have features, content, and a user interface that enhance the experience beyond that of a website that has simply been repackaged. Moreover, distributing software through app stores decreases the expenses of acquiring customers for software developers. Similarly, allowing consumers to sideload apps, which means installing apps without using an app store, does not act as a check on the control that Apple and Google have over the mobile app store market. While Google permits sideloading on Android devices, few consumers choose this option as they prefer to install apps from app stores.

On the other hand, Apple does not allow users to sideload apps on iOS devices, and those who have the technical knowledge to do so must resort to "jailbreaking" their device. Google has also made it difficult for users to sideload apps on Android devices. Consequently, sideloading apps on mobile devices does not limit the market power of dominant app stores. Following this key finding it is relevant to mention that alternative devices such as PCs, laptops, and gaming consoles have limited competitive pressure on the App Store and Play Store as well. This is because these devices are primarily utilized for different purposes and are mostly considered as supplementary to the use of native apps on mobile devices, rather than replacements. Additionally, there is limited proof that users would switch from buying content and features through native apps to purchasing them via these alternative devices or channels (such as mobile device browsers).

Apple and Google argue that many of the measures implemented in their app ecosystems, such as limitations on app functionality, are intended to ensure the security of the entire ecosystem, including the user's device, operating system, and apps. Both Apple and Google create and offer applications that compete with those made by outside developers in their respective app stores. Because the App Store and Play Store are the main channels for distributing apps, they have considerable power to control what is available on their platforms.

This situation can create imbalances in competition and make it harder for third-party developers to enter the market. Additionally, the app store operator may prioritize their own apps, resulting in unfair advantages and negative effects on competition. It follows that new app stores face high barriers to entry; the prospective of a third major mobile app ecosystem emerging in the near future is improbable. In order to create a new and attractive mobile app store for consumers, it is essential to have an established customer base that can incentivize developers to create apps for the platform. Additionally, as we briefly touched upon, popular apps are necessary to entice customers to use the new app store. Millions of apps are developed for iOS and Android, thus major device manufacturers have built their ecosystems around these platforms, making it difficult for a new mobile operating system to enter and disrupt the market. Due to the strong control that Apple and Google have over software distribution within their respective mobile ecosystems, and the unlikelihood of a new competitive mobile operating system entering the market, it is improbable that a new app store will be able to effectively compete against the existing dominant app store operators.

## 3. The impact of Apple's practices on competition

As we have introduced the main actors in the mobile application environment and observed the extent to which they hold substantial market power, it is appropriate to narrow the focus on Apple's practices and formally examine the concerns they have sparked among not only competing companies, but also European and national competition authorities. Apple's pivotal role in the digital apps market has made it an undeniably influential player in shaping the technological landscape. As the proprietor of the App Store, the company holds a significant position that can profoundly impact developers, consumers, and competition within the industry. The practices it employs, particularly in terms of gatekeeping and anti-steering measures, have raised discontent regarding fair market dynamics and consumer welfare. The control exerted by Apple over app distribution and its imposition of rules have sparked debates about the potential negative consequences these actions might have on competition, innovation, and ultimately, the well-being of consumers.[3] In this context, examining the connotation of Apple's practices becomes imperative in understanding the broader implications for the digital apps market and the balance between platform control and equitable competition. Initially, we present the charges levied by the European Commission against Apple, later we will engage in a comprehensive assessment to analyze and delve into the inherent characteristics of Apple's anticompetitive behaviors.

[3] Kotapati, Bapu, Simon Mutungi, Melissa Newham, Jeff Schroeder, Shili Shao, and Melody Wang. 2020. "The Antitrust Case against Apple." *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3606073.

### 3.1 The European Commission's charges against Apple

On the 16th of June 2020, The European Commission has initiated formal antitrust investigations to evaluate if Apple's regulations pertaining to app developers for distributing apps through the App Store are in violation of the competition laws of the European Union. The investigations are focused on two aspects - firstly, the mandatory utilization of Apple's proprietary in-app purchase system, and secondly, the limitations imposed on developers to inform iPhone and iPad users about other cheaper purchasing options that exist outside the apps. The investigations are focused on the enforcement of these regulations on all apps that compete with Apple's apps and services within the European Economic Area (EEA). The investigations are a response to grievances filed separately by Spotify and an e-book/audiobook distributor, who have raised concerns regarding the impact of the App Store rules on competition in the music streaming and e-book/audiobook sectors.

There have been previous instances of complaints, one of which was lodged by Spotify, a music streaming provider and direct competitor of Apple. On March 11, 2019, Spotify filed a complaint concerning two specific rules outlined in Apple's license agreements with developers, as well as the corresponding App Store Review Guidelines. The complaint focused on the potential effects of these rules on competition within the music streaming services industry. After conducting an initial investigation, the Commission has expressed apprehensions that Apple's restrictions could distort competition for music streaming services on its devices. Apple's competitors have taken one of two routes - either they have eliminated in-app subscription options altogether, or they have increased their subscription prices within the app and passed on Apple's fee to the customers. In either scenario, they were prohibited from informing users about alternative subscription options that exist outside of the app. Additionally, the obligation to use Apple's In-App Purchase system appears to provide Apple with complete control over the interaction with its competitors' customers who subscribe within the app. This, in turn, disengages its rivals from vital customer data, while enabling Apple to gain valuable insights into the activities and offers of its competitors. Additionally, on March 5, 2020, an e-book and audiobook distributor lodged a complaint against the Silicon Valley tech giant, which competes with the complainant via its Apple Books app. This complaint pertains to the same concerns that are being probed in the Spotify case, but in relation to the distribution of e-books and audiobooks. Simultaneously, the European Commission has initiated a formal antitrust investigation to scrutinize whether Apple's behavior concerning Apple Pay is in violation of the competition laws of the European Union.

Executive vice-president Margrethe Vestager promptly emphasized that mobile applications have fundamentally changed the way we access content[4]. Since Apple sets the rules for the distribution of apps to

[4] "Press Corner," European Commission - European Commission, June 16, 2020, https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1073.

users of iPhones and iPads, it appears that the company has obtained a "gatekeeper" role when it comes to the distribution of apps and content to users of Apple's popular devices. The vice-president stated that the commission needs to ensure that Apple's rules do not distort competition in markets where Apple is competing with other app developers, for example with its music streaming service Apple Music or with Apple Books; hence the decision to take a close look at Apple's App Store rules and their compliance with EU competition rules. The Commission at first declared intentions to investigate specifically two restrictions imposed by Apple in its agreements with companies that want to distribute apps to Apple devices' users:

i. The mandatory use of Apple's own proprietary in-app purchase systems "IAP" for the distribution of paid digital content. Apple charges a 30% commission to app developers on sales of apps, in-app purchases and subscription fees.
ii. Restrictions on the ability of developers to inform users of other purchasing possibilities outside of apps. Even though Apple permits users to access content like music, e-books, and audiobooks bought from other sources (for instance, the developer's website) within the app, their regulations prohibit developers from notifying users about these alternative purchasing options, which are frequently more convenient.

Overall, the aim of the Commission was to examine the potential consequences of Apple's App Store policies, specifically with regards to their impact on competition in the music streaming and e-books/audiobooks sectors. These policies seemed to have the potential to negatively affect consumers by depriving them of the opportunity to enjoy greater variety and more affordable prices. If confirmed, the policies being probed may have been in violation of the EU competition regulations on anticompetitive agreements between companies (Article 101 of the Treaty on the Functioning of the European Union (TFEU)) and/or on the abuse of a dominant market position (Articles 102 TFEU).[5] The prohibition of anticompetitive agreements and decisions by associations of companies that impede, limit, or distort competition within the Single Market of the European Union is outlined in Article 101 of the Treaty on the Functioning of the European Union (TFEU). In contrast, Article 102 of the legislation stipulates that the exercise of a dominating position by one or more undertakings inside the internal market, or a significant portion thereof, shall be deemed impermissible since it contravenes the principles of the internal market, particularly if it has the potential to impact trade between Member States.

Following the opening of formal proceedings into Apple's rules (i.e., the anti-steering provisions imposed on app developers for the distribution of apps via the app store) in June 2020, the Commission later sent a Statement of Objections to Apple on the 30th of April 2021. In the latter the European Commission took issue

[5] "Press Corner," European Commission - European Commission, June 16, 2020, https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1073.

with the application of the rules mentioned above to all music streaming apps which compete with Apple's music streaming app "Apple Music" in the European Economic Area (EEA). The Commission preliminary found that Apple had a dominant position in the market for the distribution of music streaming apps through its App Store, and such dominant position allowed the company to distort competition by raising the costs of competing music streaming app developers. With this statement the Commission maintained, as previously anticipated, that if confirmed this conduct would infringe article 102 TFEU. A Statement of Objections is a formal procedure undertaken by the European Commission to investigate suspected violations of EU antitrust regulations. It involves the Commission notifying the relevant parties in writing about the objections raised against them. The parties are given the opportunity to review the documents in the Commission's investigation file, respond in writing, and request an oral hearing to present their perspectives on the case to the Commission and national competition authorities. It is important to note that the issuance of a Statement of Objections and initiation of a formal antitrust investigation does not indicate any predetermined outcome of the investigation.[6] Indeed, after a time of stalemate in which the investigation didn't progress much, the Commission sent another Statement of Objections to Apple clarifying its concerns on February 28th 2023.[7] The statement elucidated that the Commission has ceased to adopt a stance on the legality of the In-App-Purchase requirement in relation to its antitrust investigation. Instead, it directs its attention towards the contractual limitations imposed by Apple on app developers, which hinder them from informing iPhone and iPad users about alternative music subscription options available at lower prices outside of the app, and from effectively selecting those options.The Commission has tentatively concluded that Apple's anti-steering obligations violate Article 102 of the Treaty on the Functioning of the European Union (TFEU) by creating unfair trading conditions. Specifically, the Commission is concerned that Apple's anti-steering obligations prohibit music streaming app developers from informing consumers about cheaper streaming services and how to subscribe to them, which may result in higher costs for users of music streaming services on Apple's mobile devices and limit consumer choice. The Commission believes that these obligations are not necessary or proportionate for the provision of the App Store on iPhones and iPads, and negatively impact the interests of music streaming app developers.

Ultimately, the Tech giant has presented its case in a closed hearing on Friday the 30th of June 2023, to counter the revised charge by the European Union. Conducted in Brussels, the session encompassed Apple articulating its points to senior representatives from the European Commission and national competition agencies. Apple has firmly contested the claims of creating unfair trading conditions by means of its "anti-steering obligations", stressing that competitor Spotify holds a dominant market share across Europe in the digital music streaming environment, while Apple music trails behind in third or fourth place in most EU countries. Apple's defense additionally underscored the company's updated regulations, which presently permit reader-oriented

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[6] European Commission, "Press Corner," European Commission - European Commission, April 30, 2021, https://ec.europa.eu/commission/presscorner/detail/en/ip_21_2061.
[7] "Press Corner," European Commission - European Commission, February 28, 2023, https://ec.europa.eu/commission/presscorner/detail/en/ip_23_1217.

applications such as Spotify and Netflix to integrate web links facilitating user registrations and payments. This modification empowers developers to circumvent Apple's debated 30% fee within the App Store. Reader applications typically deliver content such as e-books, videos, and music that necessitate payment upon initial subscription. Spotify had urged the Commission to expedite its decision-making process, arguing nothing changed at all in regards to Apple’s updated anti-steering rules, despite their statements; the European executive body has refrained from commenting on the oral hearing. [9]

### 3.2 The legal notion of Abuse of Dominance

We observe that the considerable revenue share held by the Apple ecosystem in relation to app transactions, along with the prevalence of lock-in effects and consumers' inclinations in online markets, collectively give the iPhone manufacturer with monopolistic dominance as a mobile platform. Exploiting this market power, Apple has interconnected the distribution of digital goods with its proprietary in-app purchase framework, thereby imposing a burdensome 30% fee and extracting profits that transcend competitive levels. This strategy has led to elevated app prices and diminished avenues for innovation. Furthermore, Apple's practices encompass the exclusion of competitors and the preferential treatment of its own applications through the attenuation of competitors' visibility and promotional opportunities. The company has gone as far as to hinder select rivals from the App Store entirely and cut access to vital APIs, often coinciding with the replication of their applications. Concurrently with the discriminatory application of the 30% fee, Apple's conduct toward significant multi-homing apps, e.g. Spotify, functions to reduce cross-platform competition, particularly with Android. These practices, marked by their anticompetitive nature, serve to perpetuate and expand Apple's monopoly to the detriment of a competitive landscape. While the mere possession of monopoly power is not unlawful, using such power to maintain and expand a firm’s monopoly through the exclusion of competitors is. To delve deeper into the essence of these anti-competitive practices, let us commence by evaluating and contemplating the implications stemming from the abuse of a dominant position to later focus on digital markets and more specifically on Apple’s conduct.

The legal notion of abuse is a conduct that through methods different from normal competition on the merits, prevents the maintenance or development of the degree of competition still existing in the market. It is an objective concept: the conduct may be abusive regardless of the firms’ intention. Abuse of dominance rules prohibit anticompetitive conduct by a single firm (individual dominance) or two or more firms capable of behaving on the market as a single economic entity (collective dominance). A prerequisite for a finding of infringement is a dominant position held by one or more firms, however what is forbidden is not the mere holding of a dominant position, but the abuse of such position. Article 102 TFEU provides for a non-exhaustive

[9] Foo Yun Chee and Foo Yun Chee, “Apple Seeks to Fend off EU Antitrust Charge Triggered by Spotify at Hearing,” *Reuters*, June 29, 2023, sec. Technology, https://www.reuters.com/technology/apple-seeks-fend-off-eu-antitrust-charge-triggered-by-spotify-hearing-2023-06-29/.

list of practices that may be abusive; the possibility of exemption is not explicitly provided for, but dominant firms may prove an objective justification.

There exist two types of abuse: exploitative abuse, and exclusionary abuse. Regarding exploitative abuse, under article 102 TFEU there is the prohibition of the imposition of unfair prices or other terms and conditions. Traditionally, there has been a very limited application of the prohibition of excessive prices, due to different reasons (e.g., difficulties in measuring cost levels or in determining when the margin between price and cost becomes excessive). Clearly the application of article 102, letter a) TFEU results even more difficult and controversial when dealing with information and technology-intensive products covered by IRPs (i.e., in high-tech markets). Such markets exhibit high fixed costs and negligible marginal costs; therefore firms need to charge prices significantly higher than marginal costs to recoup their fixed sunk costs. As this discussion will ultimately reflect, doubts and uncertainties remain as to the limits to the exploitation of market power in technologically advanced markets.

On the other hand, exclusionary abuse pertains to practices that use damage to consumers indirectly by altering the structure of the market to restrict competition. In principle, any pro-competitive initiative may lead to the exclusion of rivals. The main difficulty lies in discerning exclusion from competition, i.e. aggressive competition from exclusionary practices; aggressive, competitive conduct by a monopolist is highly beneficial to consumers. Courts should prize and encourage it under the antitrust laws. However aggressive, exclusionary conduct by a monopolist is deleterious to consumers and courts should condemn it under antitrust regulations. Overall, there has been a traditional lack of clear theoretical frameworks to distinguish anticompetitive practices from vigorous competition; indeed, unilateral exclusionary conduct has been the object of a wide debate. The EU commission identified 2 requirements to classify these practices[10]:

1. Foreclosure: access of actual or potential competitors to supplies

2. Consumer harm: the dominant firm is likely to be in a position to profitably increase prices or affect other parameters of competition to the detriment of consumers. Consumer harm is assessed on the basis of several factors such as the position, market conditions, extent of the conduct, and evidence of actual exclusionary strategy.

There have been initiatives in the EU to clarify the enforcement of relevant rules: the Commission's Discussion Paper of December 2005 (stemming from the need for a more economic approach), which concluded that exclusionary behavior can take three different forms; i) exclusion within one market, ii) exclusion in adjacent market, iii) exclusion in vertically related markets and essential facilities. It was followed

[10] Van, Roger, Peter D Camesasca, and Andrea Giannaccari. 2017. *Comparative Competition Law and Economics*. Cheltenham, Uk ; Northampton, Ma, Usa: Edward Elgar Publishing.

in 2009 by the adoption of the Commission's Guidance Paper, providing indications on enforcement priorities, based on a more economic approach, where the focus was on consumer harm and the possibility of justifying the firm's conduct on the basis of the efficiencies generated in the market. These were attempts to reconcile the legal notion of a dominant position with the economic concept of significant market power. The guidance identifies three main categories of relevant factors for the assessment of dominance;

1. Market position of the dominant firm and its competitors, which represent actual competitive constraints
2. The possibility of expansion and entry of other operators, which represent possible future competitive constraints
3. The bargaining power of buyers, which represents competitive constraints imposed by demand

Regarding the first relevant factor, the market position, we argue that in principle firms with "monopoly-like" positions are, by definition, dominant. The same principle holds for exceedingly high market shares, which are typically viewed as indicators of a dominant position. However, in exceptional cases, such as when market entry is particularly simple, substantial market shares (70%, 80%, etc.) might not necessarily signify a robust form of dominance. Even above 50%, there is a strong presumption of dominance. Normally the share of a dominant firm is at least equal to 40% but around that threshold, there is no presumption and an assessment must be carried out. Moreover, below 40% it is presumed unlikely to witness dominance.[11] Surely competitors' market shares must also be taken into account; if competitors have significant shares (close to the one of the dominant undertaking) we can argue there is a strong competitive constraint. Moving to the second relevant factor, when discussing expansion and possible entry of other firms we are referring to the foreseeable evolution of market structure, which encompasses the entry of new operators, and/or the growth of competitors which may reinforce the market position and prevent excessive market power. In order to exert a significant competitive constraint, the expansion or entry of other operators must be: i) probable, ii) timely (within a relatively short time period, i.e. less or equal than five years), iii) sufficient, meaning that entry of new operators must take place at a scale and pace able to prevent the exercise of market power.

A crucial economic element that must be considered is barriers to entry (i.e., costs and obstacles that a company must bear in order to enter the market, which were not sustained by the incumbents). The antitrust authorities consider a broader definition of barriers to entry: any factor that may hinder other operators to entering the market. This definition includes: control of inputs or infrastructures necessary to enter a market, well-known brands or crucial technologies owned by the incumbent (e.g., IPRs), scale or scope economies, capacity constraints, degree of vertical integration, regulatory barriers, network effects, and switching costs. Lastly,

[11] "Article 102 Investigations." n.d. Competition-Policy.ec.europa.eu. Accessed August 31, 2023. https://competition-policy.ec.europa.eu/antitrust/procedures/article-102-investigations_en#assessing-dominance.

buyers' power is a relevant factor, since the latter may limit the exercise of firms' market power and counterbalance the power of the supplier.

In the scope of this analysis, we observe that within digital sectors (which encompass high-tech industries, communication, and various other technological domains), characterized by dynamic competition, the evaluation of both the outcomes of anticompetitive actions by dominant firms and the identification of their dominant position pose challenges. These markets typically exhibit substantial concentration due to strong entry barriers, given the combined effect of scale economies and network effects which can lead to further consolidation of dominant positions. Nonetheless, simultaneous dynamic competition prevails within these environments, implying that competitive dynamics often hinge not on pricing but on innovation; indeed, these highly dynamic industries, characterized by short innovation cycles, embrace rapid changes in the market scenario due to continuous technological development. In this context, high market shares may, in some cases, turn out to be ephemeral and not adequate to reflect competitive constraints. Reasonably, the assessment of market power is more difficult when services are available for free and consumers do not have to make traditional purchasing decisions; providers are ultimately competing for users, as traffic creates monetization opportunities and consumers' currency is their time and personal data.

Undoubtedly, the essence of a dominant position revolves around its capacity to shape the conduct of diverse market participants. Economically speaking, firms that hold market dominance exhibit a form of economic authority that reduces efficiency by means of the absence of competitive pressure capable of counteracting price hikes and constraining production within dominant entities. Consequently, an enterprise attains a dominant position when it attains the ability to function autonomously in relation to competitors, collaborators, and consumers, therefore becoming disassociated from the operational dynamics of market mechanisms; considering our previous examinations, we can comment this being the position Apple finds itself in within the App distribution industry.

In high-tech markets, therefore, the assessment of dominance must capture the existence and effectiveness of competitive constraints: barriers to entry and expansion; factors that may prevent users from migrating; control of technologies or assets that enable the concerned undertaking to foreclose competition. However, in a dynamic and innovative market, it can be challenging to determine whether an enterprise has a dominant position; during the conduction of regulating evaluations traditional tools such as the ones mentioned above could lead to conflicting conclusions and often do not consider the role of innovation. Additionally, we have

anticipated how in order to prove abuse, it is essential to demonstrate harm to consumers, and this aspect is critical in the case of Apple. [12]

More specifically, in accordance with Article 102 TFEU, entities that hold a dominant position within the relevant market are prohibited from engaging in unilateral practices that undermine competition. The regulation enumerates various forms of such anticompetitive behavior, including the imposition of unjustifiably high prices and inequitable trading conditions, constraining market growth or technological advancement, favoring specific trading partners while discriminating against others, and the practice of tying or bundling. It is important to stress that the enumeration provided by Article 102 TFEU is not exhaustive. When applying competition law to digital markets, this signifies that unilateral anticompetitive conduct occurring within the digital realm may fall under pre-existing categories of abuse, or novel forms of abuse can be conceived to address the distinct context of digital markets.[13]

A notable attribute of large technology companies managing digital platforms is their extensive engagement across numerous markets. Through the establishment of comprehensive digital ecosystems, these entities can capitalize on their market influence within a given sector and extend it to interconnected or potentially remote markets. Furthermore, the user data accumulated by digital platforms in a particular pertinent market possesses a versatile character, offering utility across entirely distinct market domains. Although Article 102 of the Treaty on the Functioning of the European Union (TFEU) also pertains to instances wherein a dominant entity employs its market influence in sectors where it has not yet achieved dominance, these intricate competitive dynamics prompt an inquiry into the suitability of competition law in the context of digital ecosystems. Indeed, historically, the European Commission has predominantly leaned on pre-existing classifications of abusive practices related to dominance within the digital realm.

In the realm of competition law within digital markets, a primary concern still is the management of instances where dominant players engage in the abuse of their position. While the exploration of the European Union's encounter with dominance abuse in digital markets has highlighted the aptness of Article 102 TFEU to accommodate the digital market environment in numerous cases, the intricacies associated with platforms and their roles as gatekeepers or intermediaries have yet to be entirely captured.[14] Later on, we will delve into the implementation of the Digital Markets Act, which holds great importance in this regard.

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[12] Kostecka-Jurczyk, Daria. 2021. "Abuse of Dominant Position on Digital Market: Is the European Commission Going back to the Old Paradigm?" *EUROPEAN RESEARCH STUDIES JOURNAL* XXIV (Special Issue 1): 120–32. https://doi.org/10.35808/ersj/2033.

[13] Robertson, Viktoria H.S.E. 2020. "Antitrust Law and Digital Markets: A Guide to the European Competition Law Experience in the Digital Economy." *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3631002.

[14] Robertson, Viktoria H.S.E. 2020. "Antitrust Law and Digital Markets: A Guide to the European Competition Law Experience in the Digital Economy." *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3631002.

### 3.3 Apple's Abuse of Dominance

More specifically in the Apple case, as we earlier touched on, the exclusive avenue for legal app downloads on iPhones is Apple's App Store. For third-party app creators, submission of their developed apps to Apple is obligatory, followed by review and endorsement. Consequently, third-party apps cannot reach iPhone users unless they adhere to Apple's regulations and directives, which include guidelines concerning app monetization. Apart from the fundamental app functionalities, developers have the option of providing additional features or virtual products within the app's interface, such as subscriptions, in-game currencies, advanced game levels, access to premium content, or unlocking full versions. To enable the distribution of in-app digital goods to users making purchases, Apple mandates developers to configure their apps in a manner that directs all transactions of digital goods through Apple's in-app purchase (IAP) system. This system facilitates the processing of transactions. Subject to only a few narrow exemptions, Apple requires a 30% share of revenue from all third-party in-app purchase (IAP) transactions—a "tax" referred to as the "IAP tax". The regulations governing the App Store prohibit app developers from presenting alternate payment methods or even disseminating details about such alternatives. Applications that contravene these regulations face rejection or expulsion from the App Store. Consequently, these rules firmly integrate the IAP system with the distribution of paid digital goods, effectively safeguarding Apple's ability to levy a substantial 30% fee. This practice adversely impacts both developers and consumers, culminating in financial repercussions reaching the scale of tens of billions of dollars. [15]

Apple essentially functions as an intermediary between developers who offer in-app digital goods for sale and iPhone users. However, Apple mandates the utilization of its costly payment system for any transactions to occur. Developers aspire to cater to iPhone users who are firmly entrenched within the App Store ecosystem, yet they do not share a similar inclination towards employing Apple's payment system, which is characterized by exorbitant pricing. Nonetheless, Apple's unilateral establishment and enforcement of the App Store's regulations compel developers to route their transactions through the IAP system. Consequently, consumers aiming to acquire high-quality digital goods at reasonable rates often find themselves paying inflated prices or, as recent occurrences have demonstrated, might even be precluded from purchasing services available on alternative platforms due to the limitations imposed by the IAP system.

We anticipated how consumer harm is crucial in terms of defining an abuse of dominance within digital markets, and this applies precisely in regard to Apple's conduct. Consumers experience detriment across various aspects due to Apple's binding to the IAP system. Primarily, iPhone users are compelled to incur elevated costs for subscription apps and digital services, as the excess charges stemming from the IAP policy

[15] Kotapati, Bapu, Simon Mutungi, Melissa Newham, Jeff Schroeder, Shili Shao, and Melody Wang. 2020. "The Antitrust Case against Apple." *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3606073.

are transferred to consumers. For instance, the cost of almost every significant music streaming application on iOS is 30% higher than on Android—excluding Apple Music, since Apple exempts its proprietary apps from the 30% fee. Consumer welfare is evidently in jeopardy: subscription apps, exemplified by Spotify, constitute 94% of the leading 250 U.S. apps within iOS and constitute a pivotal element of the user interface. Furthermore, the uppermost 1% of apps account for 93% of the overall revenue and are responsible for 80% of novel installations. [16] Not to mention Apple's treatment of competitors has a detrimental impact on consumers, a reality exemplified tangibly through the instance of screen-time apps. Following the removal of competitors OurPact and Mobicip, those who resorted to Apple's in-house screen-time tool found it to be "more complex and less restrictive."

Notably, Apple's product exhibited heightened vulnerability to user circumvention and exhibited reduced agility—it lacked the functionality for parents to swiftly deactivate features on their children's phones and necessitated iPhone ownership for both parents and children. Through its denial of App Store access to rivals, Apple effectively limits consumers to fewer and inferior choices. Additionally, the exorbitant costs associated with transitioning between app ecosystems compel consumers to remain on the platform, even at the expense of compromised options and quality. In the longer term, Apple's elimination of competitors breeds apprehension regarding the company's opportunistic tendencies, which dissuades potential new developers from entering the market and discourages existing developers from innovating within their product offerings. [17]

Moreover, Apple's imposition of the 30% tax artificially stifles the competitiveness of app developers, leading to a reduction in the significance of consumer choices. The anti-competitive nature of Apple's tax has already led to a decline in direct competition among music streaming services, a trend highlighted by Spotify's recent shift away from music towards podcasts. This tax burden has, in certain instances, compelled prominent app providers to completely withdraw from the IAP system. Notable examples include Netflix, Kindle, and YouTube TV. Consequently, iPhone users, who are constrained within the iOS environment, experience frustration due to their inability to purchase or subscribe to digital content accessible on alternative platforms. Alternatively, they face inconvenience as they are required to subscribe to these services outside the boundaries of the App Store. In addition, the enforcement of the IAP fee on app developers obstructs innovation within essential downstream app markets by elevating costs for competitors. As Apple extends its influence into service sectors, the specter of its anticompetitive 30% tax becomes more pronounced for its

[16] Kotapati, Bapu, Simon Mutungi, Melissa Newham, Jeff Schroeder, Shili Shao, and Melody Wang. 2020. "The Antitrust Case against Apple." *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3606073.
[17] Kotapati, Bapu, Simon Mutungi, Melissa Newham, Jeff Schroeder, Shili Shao, and Melody Wang. 2020. "The Antitrust Case against Apple." *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3606073.

adversaries, potentially leading to adverse consequences for both consumers and the market. These repercussions encompass elevated prices, a reduction in competitive dynamics, and the stifling of innovation.

In regards to conduct leading to the removal of competitors from the app store, Apple has leveraged its authority over the App Store to effectively prohibit developers of competing apps from accessing the platform. A notable instance of this is Apple's action of either removing or imposing limitations on screen-time applications subsequent to its own introduction of a screen-time tracker. Apple informed developers that their apps were in violation of App Store regulations, despite the fact that the company "had permitted such practices over several years and had granted approval to numerous iterations of their apps."

Furthermore, when companies inquired about the steps they could take to align their app with the guidelines, Apple's response was straightforward: "Your app has an outstanding matter and has been removed from the App Store."[18] Apple has asserted that the removal of these applications was driven by apprehensions related to privacy and security. However, the timing of these actions raises suspicions. Notably, when Apple restored these rival apps, it did so on the very day that media outlets reported the Department of Justice (DOJ) in the United States taking charge of any potential antitrust investigation concerning Apple.[19]

As an effort to address its alleged privacy concerns, the remedy implemented by Apple was rather peculiar. It entailed reinstating the apps, contingent upon their agreement not to "sell, use, or disclose any data to third parties for any purpose." It is noteworthy that Apple could have easily imposed this condition when initially expressing its concerns. While these apps have been reinstated, the validity of their claims might still remain pertinent.

Moreover, the potential for additional plaintiffs exists, given Apple's history of declining apps that compete with its own offerings, such as the "Find My Friends" app and the mobile app for Steam, a video-game service. The refusal of the Steam app was attributed to a "business conflict," which raises questions given the subsequent launch of the Apple Arcade app a year later. Additionally, complaints have arisen from payment services apps that were rejected from the App Store; Samsung, for instance, reported the rejection of its Pay Mini app without any elucidation. Looking ahead, Apple's expansion into services implies increased competition with numerous apps on its App Store.

Moving forward in our discussion, another critical point is Apple's "refusal to deal" considering the company holds a platform that represents an essential facility for competitors. According to the European Union case law, an essential facility refers to an input that is deemed "indispensable" for conducting a specific activity

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[18] *The New York Times*. 2019. "Apple Cracks down on Apps That Fight IPhone Addiction," April 27, 2019. https://www.nytimes.com/2019/04/27/technology/apple-screen-time-trackers.html.
[19] *The New York Times*. 2019. "Apple Cracks down on Apps That Fight IPhone Addiction," April 27, 2019. https://www.nytimes.com/2019/04/27/technology/apple-screen-time-trackers.html.

due to the absence of available or potential alternatives. It pertains to a facility controlled or owned by a dominant firm, which constitutes a vital asset for a rival, often active in a downstream market, and where access or sharing is imperative for effective competition. A dominant entity possessing such a facility might be compelled to provide access on non-discriminatory terms. Similarly, intellectual property rights (IPRs) also act as indispensable inputs in the production processes of firms within the same market. If such dominant entity declines to provide access to such a vital input and this refusal holds the potential to eliminate all viable competition within the market reliant on said input, it can constitute an abuse of dominant position under Article 102 of the TFEU, provided there is no valid objective justification. Divergent perspectives exist regarding the significance of the role antitrust law holds in this context.

Common complaints typically revolve around instances such as the one we are hereby discussing, refusal to grant access, leading to prevention of entry. Other cases include diminished consumer choice, absence of competition in related markets, and excessively high prices. Defendants, however, argue for the necessity to protect owners' incentives for investment and innovation, safeguarding competitors' motivation to create alternative facilities, and the efficiency gained by integrating downstream and upstream operations within the same company, driven by scope economies. From a legal standpoint, the EFD introduces intricate and sensitive aspects involving both positive and negative consequences of mandating access to facilities. This presents a complex balancing act between safeguarding property rights and contractual autonomy on one side, and the imperative to uphold competitive dynamics on the other. The situation also gives rise to negative impacts in terms of allocative and dynamic efficiency, although these factors cannot be directly equated.[20] Certain instances might involve distinct measures, such as sector-specific regulations mandating the provision of access in specific economic sectors.

These measures predefine the access services that necessitate provision and simultaneously outline the terms related to pricing and supply. In scenarios where anticompetitive practices are pervasive, refusal affects multiple competitors, price monitoring results challenging, and ex post intervention might prove inadequate to avert irreparable competitive detriment, ex ante regulatory measures can prove more effective compared to general competition rules.

Providing advantageous treatment to one's own products or services, or those from the same ecosystem, particularly when they compete with offerings supplied by other entities represents one, although subtle, very concerning practice of abuse of dominance. From one perspective, it could be contended that providing preferential treatment to one’s own products or services is a fitting form of recognition for managing the platform. Conversely, in cases where a dominant platform indulges in self-preferencing, the potential for

[20] Van, Roger, Peter D Camesasca, and Andrea Giannaccari. 2017. *Comparative Competition Law and Economics*. Cheltenham, Uk ; Northampton, Ma, Usa: Edward Elgar Publishing.

significant distortion within downstream markets might be considerable, thereby transforming self-preferencing into an excessive mode of recognition. It's noteworthy that Article 102 of the Treaty on the Functioning of the European Union (TFEU) does not institute an overarching ban on self-preferencing for dominant entities. However, the act of self-preferencing by a dominant enterprise may become abusive when lacking a valid pro-competitive justification and when there's a potential for exploiting market dominance. In simpler terms, self-preferencing isn't inherently abusive, yet it should undergo assessment based on its potential effects.[21]

Having covered the notion of an essential facility and what it embodies in the market, we can delve deeper into the ways Apple conducts self-preferencing and refusal to deal. The App Store exemplifies one of the "exceptional situations" in which a company's refusal to engage with its competitors crosses the threshold of antitrust violations. What sets the App Store apart from a typical company denying access to a rival is that Apple's app platform serves as a fundamental facility. Within the mobile app industry, the App Store assumes a pivotal role as a vital distribution hub that acts as an intermediary connecting developers with users. In this intermediary capacity, the App Store facilitates the discovery of new services for consumers and enables developers to reach substantial user bases without incurring the significant costs associated with establishing brand recognition. Excluding developers from the App Store would place them at a considerable disadvantage since, without access to this distribution channel, they would struggle to effectively reach consumers. Additionally, the Android platform does not serve as a viable alternative in this context. This is primarily because iPhone users are bound to the iOS ecosystem, and there exists minimal cross-platform competition between iOS and Android. Consequently, developers are unable to access captive iPhone users by offering their apps exclusively on the Android platform.

Within reason, it is entirely practical to insist that Apple permits competing apps onto its platform, a possibility demonstrated by its previous actions regarding screen-time competitors and its subsequent choice to readmit them to the App Store. While Apple may point to privacy or security as the basis for app removals, a less restrictive alternative would involve Apple clearly outlining and enforcing its policies' terms, instead of subjecting third-party apps to the risk of arbitrary removal at Apple's sole discretion. Ultimately, Apple is not bound by any regulations that mandate it to grant access to others.

The absence of regulatory oversight in the mobile-app market underscores the predominant role of antitrust laws in preserving the market's competitive nature. Moreover, one could argue that there is rational concern that enforcing requirements for companies like Apple to disclose the source of their competitive advantage may reduce the motivation for the monopolist, the competitor, or both to invest in these economically

[21] Jaques Crémer, Yves-Alexandre de Montjoye, and Heike Schweitzer, "Competition Policy for the Digital Era," *Europa.eu* (European Commission, 2019), https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf.

beneficial resources. However, this apprehension overlooks the fact that innovation is also taking place within the platform that Apple's actions are impeding. Arguably, there exists a broader scope for innovation in the app market as opposed to the operating system (OS). The App Store has played a crucial role in fostering innovation in mobile apps—significantly more iOS apps later become available on the Android platform compared to the reverse scenario. Consequently, the more tangible and immediate detriments to innovation on the platform should be considered alongside the conventional concerns related to stifling competition between platforms.

Overall, developers face significant challenges when it comes to replicating an app platform. The idea of developers establishing their own app platform is both unviable and imprudent. The primary objective of an app platform is to establish a centralized space where developers and consumers can convene and engage in transactions. Consequently, app platforms derive their value from indirect network effects, wherein a greater number of apps on the platform attracts more consumers, and vice versa. Therefore, demanding that developers create their individual app platforms is close to, for example, requiring every railroad company to construct its own set of tracks in a world where all incoming trains should converge at a common hub. In the context of the mobile app market, such a proposition would lead to absurdity and inefficiency. It would hinder users' capacity to discover apps and impose formidable barriers to entry for developers, given the overwhelming costs they would incur.

Let us now comment on Apple’s refusal to deal, which has subtly emerged in our previous evaluations. Over an extended period, Apple permitted paid parental-control apps on the App Store and derived income from the 30% fee paid by developers. However, when Apple introduced its own parental-control apps and subsequently removed competitors from the App Store, it forfeited the fees generated by those products and did not acquire subscription revenue, as its proprietary solution was available for free through a software update. Apple's choice to discontinue a mutually beneficial and profitable business arrangement suggests an intention to unjustly exclude rival offerings. The elimination of competing apps from the App Store also raises concerns related to monopoly leveraging.

By excluding rivals, Apple runs a significant risk of monopolizing the secondary app market. With its comprehensive authority, Apple can potentially eliminate all competing apps within a specific category, leaving its own product as the exclusive choice. For iPhone users who are bound to the ecosystem, there would be no alternative source for downloading mobile apps. In straightforward terms, Apple's overarching ability to restrict app downloads exclusively to the App Store and subsequently dictate its content creates a substantial likelihood of achieving the monopoly position we had anticipated.

When talking about self-preferencing, Apple's integrated ecosystem provides it with numerous means to favor itself over competitors, ultimately to the disadvantage of consumers. Firstly, Apple imposes the 30% fee on

all third-party in-app purchase (IAP) transactions. However, Apple's own proprietary apps, like Apple Music, are exempt from this 30% charge. Secondly, there are preferential search results and visual prominence within the App Store. An app's visibility and prominence on the App Store play a pivotal role in helping consumers find and download it. Apple has consistently shown a preference for its apps by giving them more prominent placement compared to similar apps in both App Store search results and the App Store's homepage. To illustrate, Apple Arcade enjoys a dedicated tab on the App Store, serving as a prominent in-feed advertisement for the service. Additionally, Apple vigorously promotes its own proprietary apps by utilizing push notifications that prompt users to renew their subscriptions. However, it places limitations on competitors, preventing them from employing similar tactics.

Regarding data access, mandating in-app purchases (IAP) provides Apple with complete access to consumers' payment data, enabling the company to gain insights from the performance of downstream competitors and utilize this knowledge to enhance its own offerings. Apart from payment data, Apple can also track the amount of time users allocate to specific apps and has utilized this information in making decisions regarding new product development. Third-party developers do not possess access to such data. Another important aspect is the ability to communicate with iOS and hardware for app developers. Furthermore, Apple has imposed limitations on the interoperability of its operating system to prevent certain apps from accessing its Application Programming Interfaces (APIs), including Siri.

In contrast, Apple's own apps could fully utilize their respective ecosystems. Apple also enforces restrictions that prevent rival app developers from accessing iPhone functionalities. Not to mention Apple possesses the capability to closely track the achievements of other apps and adopt successful concepts from competitors without incurring the expenses associated with assessing the viability of a project. Moreover, Apple holds the authority to limit apps that run improperly of its ambiguous "Review Guidelines" at its own discretion. These guidelines have been employed by Apple to compel rivals to eliminate essential features from their apps.

Overall, Apple has utilized default settings to guide consumers toward its preferred choices. Since consumers frequently lack the ability to modify these default settings, they effectively enable Apple to retain consumers within its product ecosystem by increasing the expenses associated with accessing third-party alternatives that offer the same services. Whenever a consumer clicks on a web link within a text, it consistently opens in Safari; when utilizing voice commands via Siri to launch a music streaming app, Apple Music takes precedence; and in the event of clicking on a physical address for directions on a website, Apple Maps is the default choice. Despite the existence of third-party alternatives for all these apps, it remains impossible for either the third-party app developer or the consumers themselves to modify these default settings within their apps.

If a dominant digital platform operates in a market with substantial entry barriers and functions as a significant intermediary infrastructure, which is the case for Apple, it should ensure, to the scope of its concerns that its self-preferencing practices do not result in lasting exclusionary effects on product markets. It should ensure the absence of negative impacts on competition or provide a compelling efficiency justification when faced by allegations. [22]

Apple is likely to present its self-preferencing actions as justifiable, emphasizing that these choices lead to increased efficiencies for consumers. However, it is important to note that Apple's potential justifications fall short of being adequate. In addition to challenging Apple's claimed efficiencies, regulators can draw comparisons between Apple's behavior and the decisions made by main competitors (e.g., Android) to illustrate that certain practices are neither unworkable nor impractical. Apple did not remove several apps from the App Store when it introduced its own similar free alternatives, as it had no need to do so. Instead, by directly incorporating those apps into iOS, it effectively achieved the same outcome.

Therefore, although Apple did not officially terminate its longstanding and profitable partnerships, in essence, it acted as if it did. It abandoned ongoing, commercially advantageous business collaborations to introduce cost-free software that yielded no income. This behavior essentially aligns with what could be described as detrimental for competition self-preferencing conduct. Finally, regardless of the potential advantages in terms of quality control or privacy that Apple's limitations on third-party promotions and data access may offer, users should also have the option. If prominent promotions for Apple's apps assist in the introduction of desired new products, similar opportunities should be open to third-party developers (potentially through an auction system) who are willing to pay for such services based on the value and profitability of their apps as determined by users.

As one could reasonably infer, there are several consequences of the practices, carried out by Apple, we just covered. Apple's self-preferencing practices collectively result in elevated expenses for competitors. For instance, the imposition of the 30% discriminatory tax means that even a competitor of equal efficiency must set higher prices compared to Apple. In certain instances, these competitors may find it challenging to compete with Apple on pricing, potentially leading to their exclusion from the App Store, ultimately limiting choices for consumers. This reduced capacity to compete on pricing might also facilitate tacit collusion, where competitors follow Apple's lead in raising prices, reducing the intensity of price competition.

Furthermore, Apple's restrictions on promoting rival apps have their own adverse consequences on competition. Consumers are deprived of valuable promotional information that would have otherwise enhanced their awareness of alternatives, thereby fostering improved price competition. These restrictions also

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[22] Jaques Crémer, Yves-Alexandre de Montjoye, and Heike Schweitzer, "Competition Policy for the Digital Era," *Europa.eu* (European Commission, 2019), https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf.

increase the costs for rivals, as they are compelled to explore alternative (and typically more costly) advertising methods. Moreover, limiting rivals' access to data further amplifies their expenses in comparison to Apple. While Apple can glean insights from the performance of downstream competitors and employ this knowledge to enhance its own offerings, rivals are deprived of this capability. Restrictions on interoperability also contribute to the escalated costs for competitors. As consumers increasingly rely on apps for essential services, spanning from financial transactions to transportation, any hindrance to competition among apps and subsequent price hikes will have a progressively detrimental impact on consumers. Not to mention, the impact of escalating costs for rivals is further amplified in digital platform markets due to various factors, including network effects, economies of scope/scale, and the platforms' ability to capitalize on consumers' behavioral biases through defaults and framing. These characteristics enhance the platform's capability to exploit its market power across multiple markets, contributing to the tendency of digital platform markets to lean towards monopolization.

Manipulation of search rankings and the use of default settings are particularly effective within platform markets because consumers often concentrate their attention on the initial search results presented to them and opt for the default service, a phenomenon known as single homing. Although choosing the most visible option may offer short-term convenience for some consumers, its long-term impact on competition can be detrimental, resulting in fewer choices, lower product quality, and higher prices for consumers. The specific example of Spotify and Apple Music illustrates how the attributes of digital platforms exacerbate the consequences of increasing rivals' costs on competition, both in the present and the future.

By elevating Spotify's expenses through self-preferencing, Apple Music stands to acquire additional users. These extra users hold significant value beyond the additional subscription fees garnered by Apple Music for several reasons. Firstly, in the presence of network effects, the influx of new users enhances the appeal of Apple Music to others, making it more enticing. In the context of music streaming, network effects are anticipated because users of the same streaming service can effortlessly share playlists and connect with one another. Secondly, user data derived from music streaming behavior can be leveraged to generate revenue through avenues such as selling data to advertisers or music artists. Lastly, Apple derives advantages from economies of scale in user data, which can be utilized to enhance its service. As a consequence, Apple's self-preferencing actions harm competitors both presently and in the future.

By restricting rivals' access to users, Apple may hinder competitors from attaining the scale necessary for profitability and to invest in future innovations. Ultimately, Apple's practices harm cross-platform competition through actions that undermine cross-platform apps such as, again, Spotify; Apple has the ability to dissuade potential entrants from establishing other smartphone platforms, consequently diminishing the level of cross-platform competition. In the absence of Apple's interventions, a new entrant in the smartphone platform arena could provide a diverse selection of top-tier apps that are accessible outside the iOS ecosystem, including

popular options like Spotify and Facebook. The existence of thriving and highly sought-after cross-platform apps reduces the significance of the underlying operating system when consumers make their smartphone purchases.

To conclude, having analyzed Apple’s practices, we have gathered that prominent digital platforms that serve as information intermediaries hold a vital role in our online interactions and are expected to grow in significance in the coming years. These digital platforms exhibit distinctive features such as network effects, economies of scope/scale, and the utilization of extensive data, all while having the capability to exploit consumers' behavioral tendencies. As the digital platform landscape continues to evolve, it becomes increasingly essential to scrutinize and address the anti-competitive behavior of dominant firms such as Apple to ensure a fair and vibrant digital marketplace that benefits both developers and consumers alike. Although the Commission might not be concerned anymore with the legality of the In-App Purchase obligation for the purposes of its antitrust investigation, still Apple’s anti-steering obligations and self-preferencing practices remain objects of regulatory concern in the digital apps’ platforms’ competitive environment and represent a threat to both the growth of smaller competitors and consumers’ welfare.

### 3.4 Other competition concerns: Apple’s App Tracking Transparency

Another relevant topic of discussion is Apple’s new App Tracking Transparency policy. In its most recent mobile operating system updates, introduced in April 2021, Apple introduced a comprehensive global policy known as the "App Tracking Transparency policy" (referred to as the "tracking policy"). This policy mandates that app developers incorporate an additional prompt, designed by Apple, to seek permission from end users for the developer's ability to "track" the user's activity, even if the user has previously granted consent for data sharing using the developer's own consent mechanism. This novelty sets forth specific requirements for user tracking, as outlined by Apple, for third-party apps. Advertisers or app developers, for instance, can employ tracking to deliver personalized ads on websites and apps, or to monitor and utilize user data for various purposes. These capabilities can be especially important for third-party app providers when their business models hinge on offering apps that are free but funded through advertising. Apple frames this new policy as a measure aimed at enhancing user privacy. However, many deem it as another way of reinforcing Apple’s data supremacy, as it limits data-driven competition and consumer options throughout the entire Apple ecosystem. In fact, these concerns have already prompted an inquiry by the French Autorité de la concurrence, led to a complaint filed by eight media and technology associations with the German Bundeskartellamt, and sparked an antitrust probe by Italy’s Autorità Garante della Concorrenza e del Mercato.

Since April 26, 2021, no app can pass the App Store review process unless it correctly implements Apple's app tracking policy. This policy requires app developers to present users with a system-provided prompt, known as the "tracking prompt," before the developer initiates any form of user tracking across apps and websites, as defined by Apple. Notably, this tracking prompt cannot be dismissed and must be addressed by users without additional information or explanations. App developers are required to display this prompt, especially when they intend to access the Identifier for Advertisers (IDFA) for the first time. The IDFA is a unique string of numbers assigned to each device, allowing for the anonymized connection of information, such as ad clicks or app downloads, to a specific device without revealing the user's actual identity.[23] When an end user declines to permit "tracking" through the new prompt, the app developer is prevented from accessing that user's IDFA or conducting any other form of tracking, making it extremely challenging to combine and correlate data related to the user's device. It sets forth specific requirements for user tracking, as outlined by Apple, for third-party apps. Advertisers or app developers, for instance, can employ tracking to deliver personalized ads on websites and apps, or to monitor and utilize user data for various purposes. These capabilities can be especially important for third-party app providers when their business models hinge on offering apps that are free but funded through advertising. Even before the introduction of the tracking policy, users had the technical option to prevent app developers from obtaining their IDFA by enabling Apple's "Limit Ad Tracking" (LTA) setting. Approximately 25% of end users have actively opted for this setting to avoid tracking.[24] Apple provides the tracking prompt with a pre-designed interface, and its wording carries a negative connotation, implying that app developers are engaging in something undesirable. The prompt prominently features the term "tracking" in a repetitive manner, giving it the appearance of a cautionary message rather than a straightforward consent form.

Notably, the structure and design of the tracking prompt differ significantly from other consent prompts used by Apple. App developers have limited customization options within the tracking prompt, primarily involving the ability to modify the description text, known as the "purpose string." This allows developers to clarify their reasons for requesting permission to track users. Initially, Apple did not intend to provide app developers with alternative methods to inform users before displaying the tracking prompt or allow developers to seek user confirmation at a later stage. In response to industry concerns, Apple has introduced a provision for providing users with additional information, such as screens that app developers can present either before or after displaying the tracking prompt.

Due to the limited information provided in the tracking prompt, it does not meet the standards for complete and valid consent under EU data protection laws. Consequently, the prompt introduces an extra opt-in step or

[23] "Upcoming AppTrackingTransparency Requirements - Latest News - Apple Developer," developer.apple.com, accessed September 4, 2023, https://developer.apple.com/news/?id=ecvrtzt2.
[24] "Impact of Apple (IOS) Limit Ad Tracking on Attribution," Help Center, March 20, 2023, https://support.appsflyer.com/hc/en-us/articles/115003734626-Impact-of-Apple-iOS-Limit-Ad-Tracking-on-attribution.

obstacle for app developers seeking access to the IDFA. End users are required to grant consent first through the app developers' own comprehensive consent management tools to comply with EU data protection laws and then once more through Apple's controlled abbreviated prompt in adherence to its policy. If a user initially consents within the app developer's own tools, but later declines Apple's mandatory tracking prompt, the second decision takes precedence over the first. Moreover, if an end user disapproves of tracking in the second prompt but subsequently intends to permit tracking in a subsequent third prompt initiated by an app developer to encourage a change of heart, it does not automatically restore the app developer's access to the IDFA. This only redirects the end user to the device's system settings, where the user must then undergo the cumbersome process of locating the appropriate settings to re-enable tracking for the specific app. If an end user declines to consent to 'tracking,' Apple does not permit the app developer to deny the use of its app to such an end user.

Even with Apple's recent improvements, the consequences of the tracking prompt are severe for app developers. Before the policy was implemented, around 75% of end users granted permission for tracking via the IDFA. Following the implementation of the tracking policy, the consent rate plummeted to just 4% in the U.S. during the initial week.[25] On a global scale, there was a slightly higher allowance rate of 12%, but it still fell short of most previous estimations. While there was a slight uptick in opt-ins during the second week, the numbers remained significantly low. Due to the tracking policy, app developers face substantial constraints when it comes to delivering ads based on user interests, accurately assessing the effectiveness of advertising campaigns, managing ad frequency to prevent overexposure, and combating ad fraud within the Apple ecosystem. According to research findings, these restrictions are expected to result in a significant reduction in revenue, ranging from 50% to 65%, especially impacting small and medium-sized app developers and advertisers.[26]

While it is crucially important to strengthen measures that enhance and protect privacy as a fundamental right, and Apple is more than welcome to emphasize this, we can't help but question the real motive behind the company's choices. Considering the European Union's implementation of one of the most comprehensive data protection frameworks globally, the General Data Protection Regulation (GDPR)[27] it is quite misleading when Apple claims that its new policy was implemented to offer users the ability to prevent tracking without their consent. The company used strong words to justify the adopted changes, condemning apps for sharing users' data with third parties such as advertisers and data brokers.

However, Apple itself continues to participate in the activities it supposedly criticizes and cites as the rationale for the tracking prompt's introduction. Rather than strengthening privacy, this tracking prompt provides Apple

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[25] Samuel Axon, "96% of US Users Opt out of App Tracking in IOS 14.5, Analytics Find," Ars Technica, May 7, 2021, https://arstechnica.com/gadgets/2021/05/96-of-us-users-opt-out-of-app-tracking-in-ios-14-5-analytics-find/.
[26] "Effect of Disabling Third-Party Cookies on Publisher Revenue Results & Statistical Analysis," 2019, https://services.google.com/fh/files/misc/disabling_third-party_cookies_publisher_revenue.pdf.
[27] EUR-Lex, "EUR-Lex - 32016R0679 - EN - EUR-Lex," Europa.eu, 2016, https://eur-lex.europa.eu/eli/reg/2016/679/oj.

with increased control over user data and additional avenues for monetization. Consequently, instead of gaining more choices, end users will experience a further loss of control over their data and encounter reduced competition focused on enhancing privacy within the Apple ecosystem. Not to mention, since the implementation of the GDPR in 2018, app developers have been legally obligated to seek consent from end users before utilizing or sharing their data for advertising purposes, and Apple exercises control in this regard. Failure to adhere to the EU's standardized prerequisites for obtaining such consent can result in enforcement actions by data protection authorities, consumer associations, and competitors. App developers typically depend on advanced industry standards or develop their own strategies to strike the appropriate balance between adequately informing users about data usage and conveying the purpose and benefits to users, all while adhering to legal standards. Apple too has been actively ensuring adherence to relevant privacy laws.

Over the years, Apple has conducted assessments to determine if apps comply with these regulations prior to granting them entry into the App Store. Throughout the review process, Apple places special emphasis on whether developers secure meaningful user consent before collecting and consolidating data. The company is aware that, particularly within the EU, users are properly informed and their consent is sought before any tracking activity, as prescribed by privacy laws. Moreover, Apple's public portrayal of its stated intentions sharply contrasts with how Apple has defined the scope of what constitutes "tracking." According to Apple, "tracking" specifically pertains to the merging of data from different entities, meaning data sets from unrelated companies, termed "Third-Party Data." Consequently, app developers who share end users' data with other app developers are required to present the tracking prompt.

Conversely, the amalgamation of distinct data sets collected through various services within the same corporate group (referred to as First-Party Data) is not subject to this requirement. Thus, the processing and sharing of First-Party Data within a corporate group are exempt from triggering the tracking prompt, despite EU data protection laws not drawing such a distinction between First- and Third-Party Data. This distinction implies that, for instance, it qualifies as "tracking" when a small app developer shares user data collected within its own app with advertising intermediaries to gauge the effectiveness of advertising campaigns or to fairly attribute their success. For example, this could involve attributing the installation of an app to its developer after a user clicked on an ad in another app, or linking a purchase to an ad displayed within an app. However, according to Apple's definition, it does not fall under the category of "tracking" if, for instance, Apple itself accumulates and consolidates substantial user data from its various services and apps (such as the App Store, Safari browser, Apple TV+, Apple News, Apple Music, and more, including third-party in-app purchases and subscriptions). This is done with the aim of delivering highly targeted ads within its App Store (known as Apple Search Ads) or Apple News and Apple Stocks (termed Apple News Ads). Hence, Apple refrains from presenting the tracking prompt within its own applications, even when its app combines data with third-party apps.

Similarly, Apple employs a completely distinct process for users who want to opt out of Apple's personalized ads. In this rather convoluted procedure, iPhone users need to navigate to the "Settings" menu, proceed to "Privacy," scroll down extensively to find the "Apple Advertising" option, and then opt out of "Personalized Ads" by Apple. Before reaching this choice, users are presented with comprehensive, and notably positive, information detailing the purposes and methods of Apple's utilization of targeting information for its "personalized ad experience," as well as the anticipated outcomes of disabling it.[28] This clearly creates a double standard. Although the prompt effectively serves its technical purpose of restricting access to the IDFA by reducing opt-ins, it falls short of being a tool that empowers users to make well-informed decisions, as mandated by privacy laws.

It comes as no surprise that antitrust authorities have developed worries regarding this "privacy enhancing" novelty in the Apple ecosystem. On the 14th of June 2022, the German Bundeskartellamt launched an investigation into Apple to assess its tracking regulations and the App Tracking Transparency Framework from a competition law perspective. Notably, Apple's regulations have triggered concerns regarding potential self-preferencing and obstruction of other companies, which would be subject to scrutiny during the investigation. Andreas Mundt, President of the German authority, stated that there is reason to doubt the legitimacy behind Apple's intention to implement new "pro-competitive rules", whereby Apple's rules clearly apply to third parties but not to Apple itself; this would allow Apple to give preferences to its own offers or impede other competitors.[29] The Bundeskartellamt had been taking action against Apple's conduct as a company that could be categorized as having significant importance for competition across various markets. This proceeding follows the one launched against Apple on June 21, 2021, to assess its significance for competition across markets. The examination of Apple's tracking rules is conducted, undoubtedly, also under Article 102 of the TFEU. In this context, Apple's ability to aggregate data across its services and users' choices concerning the handling of their data by Apple may be relevant, as well as whether these rules could potentially limit users' access to ad-supported apps.

Similarly, as of July 2023, the French Competition Authority, Autorité de la concurrence, has concerns that Apple could potentially abuse its dominant position through the enforcement of biased, unclear, and non-transparent conditions for utilizing user data in advertising activities.[30] For several years, the authority has been conducting an investigation into Apple, which was prompted by antitrust complaints from French advertising industry groups in 2020. These complaints arose due to changes implemented by Apple in its

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[28] Thomas Höppner and Philipp Westerhoff, "Privacy by Default, Abuse by Design: EU Competition Concerns about Apple's New App Tracking Policy," *SSRN Electronic Journal*, 2021, https://doi.org/10.2139/ssrn.3853981.
[29] "Press Release," June 14, 2022, https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Pressemitteilungen/2022/14_06_2022_Apple.pdf?__blob=publicationFile&v=4.
[30] "Advertising on IOS Mobile Applications: The General Rapporteur Confirms Having Notified the Apple Group of an Objection," Autorité de la concurrence, July 27, 2023, https://www.autoritedelaconcurrence.fr/en/press-release/advertising-ios-mobile-applications-general-rapporteur-confirms-having-notified-apple.

privacy features, specifically the introduction of the App Tracking Transparency (ATT) feature. ATT, as we previously covered, requires iPhone users to decide whether they wanted to permit third-party apps to collect data for targeted advertising purposes. Industry lobby organizations argued that this feature led to a decline in revenue and granted Apple an unfair advantage, as Apple's own apps did not incorporate this feature. While the Competition Authority did not prevent the introduction of ATT in 2021, it expressed intentions to scrutinize whether Apple was applying different standards to its own apps, which seemed to be the case.[31]

Moreover, the Italian Competition Authority, Autorità Garante della Concorrenza e del Mercato (AGCM), noted that Apple enforces a stricter privacy policy on third-party app developers compared to the standards it applies to its own products. This dual standard, which as we mentioned has been in effect since April 2021, results in non-Apple app users encountering more prominent consent prompts for data tracking from third-party developers than those seen in Apple's own products. Furthermore, the regulator highlighted that the prompts in third-party apps are formulated with stronger language compared to those in native Apple apps, making them more persuasive in discouraging users from opting into tracking. The AGCM also pointed out that third-party app developers have limited capabilities to profile users and measure the effectiveness of advertising campaigns when compared to Apple, as the tech giant provides them with less comprehensive tools that offer reduced information compared to what Apple utilizes internally. According to the regulator, Apple's conduct places third-party developers at a disadvantage for the benefit of Apple itself. This could potentially lead to decreased advertising revenues for third-party developers and result in a shift of competition away from Apple's products. [32]

The availability of data related to both user profiling and the measurement of advertising campaign effectiveness - while adhering to privacy regulations - are essential elements for the attractiveness of advertising spaces sold by app developers and purchased by advertisers. Therefore, according to the Authority, Apple's alleged discriminatory conduct may lead to a decrease in advertising revenue for third-party advertisers, benefiting its own commercial division. This conduct could also diminish the entry and/or hinder the presence of competitors in the app development and distribution market, favoring Apple's own apps and, consequently, its mobile devices and the iOS operating system. According to the Antitrust Authority, the presumed reduction in competition in the relevant markets and the resulting strengthening of Apple's digital

[31] "French Competition Authority Issues Antitrust Objection to Apple for App Data Tracking," RFI, July 26, 2023, https://www.rfi.fr/en/science-and-technology/20230726-french-competition-authority-issues-antitrust-objection-to-apple-for-app-data-tracking.

[32] "Apple Faces Italian Antitrust Probe over Alleged App Market Abuse," *Forbes*, May 12, 2023, https://www.forbes.com/sites/roberthart/2023/05/11/apple-faces-italian-antitrust-probe-over-alleged-app-market-abuse/.

ecosystem could reduce incentives for the development of innovative apps and impede users' transition to competing digital ecosystems. [33]

Overall, the concerns shown by these national authorities reflect the sentiment and doubts we have anticipated at the beginning of this discussion. Firstly, European Union privacy legislation is grounded in the concept of autonomous consumer choices. Any consent to data usage should be given by a clear affirmative act establishing a freely given, specific, informed and unambiguous indication of the data subject's agreement to the processing of personal data relating to him or her, according to the GDPR. [34] This condition is unfulfilled when a prompt hints at a response without disclosing its ramifications. Furthermore, the tracking prompt fails to educate end users about the specifics of the proposed data processing, and it lacks provisions for accessing additional information. Moreover, the provided choices do not represent the genuine alternatives. The true decision should revolve around whether a user opts to (i) permit tracking across free apps, resulting in fewer and more pertinent ads, or (ii) decline tracking but face the necessity of paying for the app or encountering an increased volume of irrelevant ads. An appropriate prompt would offer more choice options rather than only "yes" or "no". Crucially, the EU requirements for obtaining consent (which apps must secure in any scenario) are constructed to mitigate the information disparities between end users and data processors, which typically hinder users from making well-informed choices. In the context of data protection, it is essential for a consumer to fully comprehend the implications of their decision to provide effective consent. Apple, however, withholds this crucial information from users and, instead, exacerbates the information imbalance by compelling app developers to adopt an additional consent mechanism that lacks the capability to facilitate informed decision-making (due to limited space and the absence of an option for supplementary information). Furthermore, not only is inadequate and misleading information presented, but the language employed leans toward suggesting a cautionary warning.

Consequently, Apple nudges users towards opting against "tracking" even though they remain unaware of the consequences of such a choice. The mechanism implemented by Apple essentially dismisses a user's presumably well-informed decisions as inconsequential or void and prompts them to make a new choice, all the while failing to adequately clarify what exactly the user should be consenting to on this occasion. In contrast, European privacy legislation anticipates that digital platforms will respect users' privacy choices that align with legal requirements, without necessitating intervention by digital gatekeepers. When a platform overrides such a choice by imposing its own suggestive prompt, it seizes control from both the user and the app developer, disregards their mutual agreement, and potentially disrupts their business relationship. In doing

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[33] Autorita' Garante della Concorrenza e del Mercato, "Avviata Istruttoria Nei Confronti Di Apple per Presunto Abuso Di Posizione Dominante Nel Mercato Delle App," www.agcm.it, May 11, 2023, https://www.agcm.it/media/comunicati-stampa/2023/5/A561.

[34] Nicholas Vollmer, "Recital 32 EU General Data Protection Regulation (EU-GDPR)," www.privacy-regulation.eu, July 2, 2021, https://www.privacy-regulation.eu/en/recital-32-GDPR.htm.

so, it effectively nullifies the end user's GDPR-compliant privacy settings. Moreover, the most significant drawback in Apple's system lies in its potential to effectively diminish established privacy standards. This is primarily due to Apple's differentiation between First and Third-Party Data, which permits data combination within a large-scale data ecosystem while obstructing such combination by smaller competitors that might be inclined to adopt more privacy-conscious business models.

The tracking prompt exacerbates the consolidation of economic influence within Apple's data-driven platform, confined within its enclosed data ecosystem. Ironically, this power poses a substantial privacy risk, which runs counter to the objectives of data protection laws. By establishing these new, self-serving standards, Apple intensifies the reliance of all user segments on its platform. Consequently, given the absence of any counterbalancing buyer influence, consumers are essentially left with no choice but to accept Apple's privacy terms and conditions on a non-negotiable basis. Data ecosystems with such high concentration, exemplified by Apple's, present the greatest risk of users losing control over their data. Ultimately, one must weigh the advantages of identifier data for app developers in their advertising endeavors and, subsequently, the advantages of such advertising for end users. While end users do not receive any additional safeguards from Apple's updated tracking policy compared to existing EU regulations, they stand to lose significantly in terms of heightened costs, reduced quality, and a diminished selection due to decreased competition within Apple's enclosed ecosystem.[35]

The foundation for the availability of free services on Apple devices lies in interest-based advertising. Tracking plays a pivotal role in facilitating this type of advertising, as it underpins the technical framework for aligning supply with demand. It is a well-established fact that users tend to view advertising favorably only when it is pertinent to them at the specific moment the ad is presented. Whether an ad is perceived by a user as a valuable source of information that reduces search and transaction efforts, or instead as an intrusive diversion from the app's content, hinges on the ad's relevance to that particular end user. To enhance this relevance, it's important to have insights into the current or at least general interests of the end user. This is what tracking and especially the use of IDFA is useful for. The combination and use of data requested by app developers (to better the quality of advertising and lower the prices of services) overall gets hindered by the new Apple's tracking prompt; it suggests that end users have the option to prohibit any external sharing of their data while still reaping all the advantages of such data processing without incurring any expenses. However, this type of option is not feasible; app developers must cover the costs of their apps, whether it is through advertising or a subscription model. Apple's prompt masks the fact that a substantial restriction on tracking will ultimately force app developers to offset their expenses by transitioning to a subscription-based model, where end users would be required to pay for the service. Consequently, for apps that were initially provided for free, Apple's

[35] Thomas Höppner and Philipp Westerhoff, "Privacy by Default, Abuse by Design: EU Competition Concerns about Apple's New App Tracking Policy," *SSRN Electronic Journal*, 2021, https://doi.org/10.2139/ssrn.3853981.

prompt encourages users who value "zero own costs" to make a decision that will result in the opposite outcome: a shift from free ad-supported apps to subscription-based apps (with less targeted ads).

The absence of alignment between the interests of end users, app developers, and advertisers, by means of Apple's approach, highlights the extent of the company’s market dominance. In a competitive landscape, multi-sided intermediaries strive to enhance the mutually beneficial network effects among their various user segments. Clearly, this seems not to be the case for Apple; as soon as tracking becomes beneficial for third parties as well rather than solely for the company itself, it is deemed unnecessary or risky for the end users’ privacy. Our observations, up to here, clearly stress how Apple’s prompt ultimately harms consumers’ welfare by nudging them into receiving less relevant and “user-specific” ads by ultimately having to bear higher costs for subscriptions or even the download of certain apps. The prompt also has significant hindering effects on smaller app developers, who, as we discussed in section 2.2, already face remarkable difficulties entering the App distributing industry. Not to mention, since App developers might find it necessary to exit the market for in-app advertising (that relies on user interests) and instead transition to models that rely on payments from users, they may have no choice but to charge end users more, and this benefits Apple even more; it boosts the company's revenue through commissions of up to 30% for each individual in-app transaction that utilizes the App Store or its in-app purchasing system.

Once again, Apple's ecosystem reaps the benefits by sheltering itself from competition with rival platforms. This safeguarding effect stems from the likelihood that Apple's tracking policy will raise the costs associated with switching for end users. The greater the number of Apple services an end-user utilizes and the more they invest in paid apps or in-app content, the higher the cost incurred when contemplating a shift to an alternative mobile platform like Android. Apple is aware of the lock-in coming with its operating system and has deliberately refrained from introducing interoperability with its services precisely for this reason in the past. Likewise, this propensity to remain entrenched within the Apple ecosystem heightens end users' willingness to pay ever-escalating prices for additional Apple devices. The more that end users find themselves financially tied to services offered through Apple devices, the more they will also be compelled to invest in said Apple devices. This dynamic establishes a self-reinforcing cycle that capitalizes on the reliance of customers within a strictly closed ecosystem.

In traditional contexts, the actions of a dominant company operating within an upstream market, which reduces the access of downstream competitors to a necessary input for their effective competition, could be perceived as an abuse of market dominance. Therefore, when examined through the lens of competition law, Apple's attempts to limit the capacity of app developers to gather and exchange data collected from their end-users, even when these have provided their consent for such data collection, seemingly align with the criteria for an infringement. This strategy further strengthens entry barriers for both the digital content market and the realm

of interest-based in-app advertising. This is especially evident when considering that Apple has access to the data that developers are unable to acquire.

To date, Apple has not provided compelling proof that the tracking prompt is indispensable for safeguarding the personal data of end users. Nevertheless, even if one were willing to acknowledge a privacy concern associated with Apple's tracking prompt, a concern that Apple asserts on behalf of end users, this does not inherently imply that these concerns can take over the interests in maintaining competition. As a consequence, the conduct can't be immune to antitrust examination. Due to the relative novelty of these legal frameworks, the precise equilibrium between privacy regulations and digital antitrust laws remains a subject that requires further exploration. If privacy considerations do not significantly expand the environment of antitrust, it implies, conversely, that privacy arguments may not substantially constrain the scope of antitrust regulations. Nevertheless, it is evident that any data privacy concern should not necessarily override interests related to data-driven competition, as the latter may ultimately generate greater benefits for consumers. Therefore, it seems appropriate that when a privacy interest is asserted for a specific action, antitrust authorities should acknowledge and assess such an interest while also weighing it against the competition-related concerns stemming from the same action. In this evaluation process, it is essential to place particular emphasis on the shared objective of both antitrust and data privacy laws, which is to empower consumers by enhancing their freedom of choice.

Overall, the concerns tied with the App Tracking Transparency policy are additional proof of the intricacies and complexity inherent to digital apps markets. Balancing privacy protection with fair and competitive conduct has been challenging; although both European and national authorities can lean on strong regulations such as the GDPR, preventing market "gatekeepers" such as Apple from impeding competitors' growth and fair access has been unsuccessful.

## 4. The Digital Markets Act

Our discussion has so far highlighted the several limits and difficulties competition law and antitrust authorities may encounter when approaching anti-competitive concerns in the digital environment. Whether it is dealing with privacy regulation in data collection, or with dominant undertakings abusing their power in an upstream market (this would be the case for Apple, given the considerations up to here), competition law has undertaken an interesting journey characterized by constantly evolving circumstances and changes. Ultimately, antitrust regulations forbid mergers that stifle competition and actions that establish monopolies, aiming to foster competitive markets and avoid excessive consolidation of economic influence. In doing so, authorities have found themselves facing modern and delicate infringements, like the ones we have previously discussed in the

case of Apple, which need to be addressed in a radically more attentive manner. Navigating the digital environment from a competition law's perspective has not been easy; nonetheless, both national authorities and the European Union collectively have shown great resilience and soundness in embracing the challenges these markets pose in terms of maintaining fair competition.

### 4.1 The new ex-ante approach

The Commission's primary obstacle in addressing anti-competitive practices among online platforms was its reactive approach, known as "ex-post," which meant it could only respond after issues arose. This became less problematic when markets were well-organized, and businesses adhered to competition rules. However, in the relatively nascent digital markets and due to the European Commission's limited track record in this area, online platforms resisted Commission oversight. A key objective was to encourage gatekeepers to cooperate with the Commission. While the Commission achieved some success in addressing online platform issues using traditional competition policy tools, it became increasingly apparent that exploring a new approach to competition regulation in this sector might be worthwhile[36].

Additionally, Vice-President Vestgager was able to leverage the Commission's prior experience with ex-ante regulation in different sectors unrelated to the digital domain when considering regulations like the Digital Markets Act. This underscored the importance of integrating antitrust measures with regulation to create a comprehensive toolkit, as emphasized by the vice-president.[37] The genesis of the Digital Markets Act can be attributed to several factors, including the acknowledgment of the necessity to oversee online platforms and companies that, due to their scale and influence, had evolved into pivotal components of the digital economy, wielding the authority to mediate a substantial portion of interactions between business users and end users. Additionally, as we briefly touched upon, concerns about the limitations of competition law in addressing these issues were noteworthy. Furthermore, a significant factor was the presence of political determination at the European level to establish such a regulation. Given the customary gradual process of drafting European legislation, it is evident that the Digital Markets Act (DMA) text was undeniably ambitious. The implementation of this legislation was anticipated to yield several advantages. Firstly, business users relying on gatekeepers for their services within the single market would finally operate in a fairer business environment. Secondly, technology startups and innovators would encounter fresh prospects to both compete and innovate within the online platform ecosystem, without being encumbered by unjust terms and conditions that hindered their growth. Furthermore, consumers would gain access to a wider array of enhanced services, enjoy greater ease in switching providers if desired, encounter more equitable pricing, and attain direct access to services. Gatekeepers would still retain opportunities for innovation and the provision of new services;

[37] Cini, Michelle, and Patryk Czulno. 2022. "Digital Single Market and the EU Competition Regime: An Explanation of Policy Change." *Journal of European Integration* 44 (1): 41–57. https://doi.org/10.1080/07036337.2021.2011260.

however, they would be prohibited from employing unfair practices against other business users and customers who depend on them to gain an undue advantage.

The initiation of the groundwork for an ex ante regulation represented a novel approach, introducing fresh concepts to EU law while serving as a supplementary framework alongside competition law. However, it is essential to note that questions regarding its provisions and challenges related to its effective implementation have arisen. The DMA has been recognized as extraordinary in terms of both its ambition and intricacy; the obligations delineated in the text are comprehensive in nature. In practical terms, the Commission is compelled to partake in extensive dialogues with gatekeepers, grappling with the technical intricacies of encompassing such diverse services. Furthermore, the Digital Markets Act (DMA) harbors multiple objectives, which may not always align harmoniously. When conflicts arise among these objectives, gatekeepers are compelled to make difficult trade-offs, with the responsibility of balancing these competing aims resting on the shoulders of the Commission and, ultimately, the European courts. A critical aspect to consider is the text's complexity, given the wide spectrum of activities it governs.

The DMA extends its responsibility to a broad array of activities, potentially encompassing a substantial number of gatekeepers. Consequently, the ensuing workload for the Commission is undeniably substantial.[38] In essence, the Digital Markets Act (DMA) establishes a precise set of objective criteria with narrow definitions to determine the qualification of a sizable online platform as a gatekeeper. This strategic approach enables the DMA to maintain a focused and effective response to the specific issues associated with large, systemic online platforms. These criteria are satisfied if a company fulfills the following conditions:

- Possesses a robust economic standing, exerts significant influence on the internal market, and operates across multiple European Union member states.
- Maintains a substantial intermediation position, characterized by connecting a substantial user base with a considerable number of businesses.
- Holds, or is on the brink of obtaining, an entrenched and enduring market position, signifying stability over time provided that the company satisfies the first two criteria in each of the previous three financial years.[39]

The proposed new rules would establish a set of obligations for gatekeepers, encompassing both affirmative actions ("do's") and prohibitions ("don'ts") they must adhere to in their day-to-day operations. Some illustrative

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[38] Bania, Konstantina, Sean-Paul Brankin, Jean Cattan, Francis Donnat, Damien Geradin, Martin d'Halluin, Pierre Larouche, et al. 2022. "The Digital Market Act." *Concurrences Review*, no. N° 3-2022 (September). https://www.concurrences.com/en/review/issues/no-3-2022/on-topic/the-digital-market-act#:~:text=The%20Digital%20Market%20Act%20(DMA.

[39] "The Digital Markets Act: Ensuring Fair and Open Digital Markets." n.d. Commission.europa.eu. https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/digital-markets-act-ensuring-fair-and-open-digital-markets_en.

examples of the affirmative obligations include: gatekeepers are required to enable third parties to interoperate with their own services under specific circumstances; gatekeepers must grant their business users access to the data generated during the utilization of the gatekeeper's platform or service; gatekeepers are obliged to provide companies advertising on their platform with the necessary tools and information to independently verify the advertisements hosted by the gatekeeper; gatekeepers must allow their business users the freedom to promote their offerings and services, as well as to finalize contracts with their customers outside the gatekeeper's platform. Regarding the prohibitions, gatekeepers will be prohibited from engaging in the following practices: gatekeepers cannot give preferential treatment in ranking to their own products or services over similar offerings from third parties on their platform; gatekeepers cannot impede consumers from engaging with other businesses external to their platforms; they are can't prevent users from uninstalling any pre-installed applications or software if they desire to do so; gatekeepers are prohibited from tracking end users beyond their core platform service with the intention of targeted advertising without obtaining effective consent.

To ensure that the new gatekeeper rules remain effective and relevant in the rapidly evolving digital markets, the Commission will conduct thorough market investigations. These investigations will enable the Commission to gather detailed insights into the dynamics of the market, including the behavior of gatekeepers, after having assessed who in the market holds such position, and their impact on competition and innovation. Based on the findings, the Commission can make necessary adjustments to the rules to ensure they effectively address any emerging issues and promote a level playing field for businesses and consumers alike. The Commission will also come up with solutions to address the systematic violations of the rules outlined in the Digital Markets Act. There will, in fact, be repercussions in case of non-compliance; fines can go up to 10% of the total worldwide annual turnover of the company under scrutiny, or even up to 20% in case of recurrent infringements. There may be also periodic penalty payments of up to 5% of the average daily turnover. If gatekeepers systematically violate their obligations under the DMA, they may face additional penalties after a market investigation. These penalties must be appropriate to the offense committed. As a last resort, non-financial penalties may be imposed, such as behavioral and structural remedies, including the divestment of all or part of a business. [40]

During the legislative process, national competition authorities, along with some EU governments, such as those of France, the Netherlands, and Germany, had requested enforcement powers for DMA to be given to NCAs. However, in the final version of the law approved by the European Parliament and the Council of the EU, NCAs were only granted the role of assisting the Commission in DMA enforcement. EU countries have the authority to gather complaints, assist the Commission in conducting market investigations, and investigate potential cases of non-compliance. This means that National Competition Authorities (NCAs) will be

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[40] "The Digital Markets Act: Ensuring Fair and Open Digital Markets." n.d. Commission.europa.eu. https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/digital-markets-act-ensuring-fair-and-open-digital-markets_en.

responsible for carrying out these activities and sharing their findings with the Commission, which will then decide whether to take further action. As resources are limited, the Commission may choose to focus on investigations that are more likely to have a direct impact. National competition authorities (NCAs), particularly those in Germany, Italy and France, have been actively pursuing antitrust cases against the potential gatekeepers. These countries have already made impressive progress in addressing the issue of monopolies and promoting healthy competition in the market; which comes as no surprise, after we briefly touched upon their intervention in the case of Apple's App Tracking Transparency policy. It is important to emphasize that the DMA does not empower the Commission to prevent national investigations, which could lead to inconsistencies, inefficient allocation of resources, and duplicate cases.[41]

Moreover, the Digital Markets Act (DMA) forbids the use of 'anti-circumvention' measures that unreasonably hinder users from exercising their rights. As an example, the constraints imposed by app-store operators on app developers, which prevent them from advertising alternative payment services within an app, are likely to be classified as anti-circumvention measures. Some argue that there are loopholes in this system; the DMA empowers app-store operators to safeguard the reliability and security of apps and hardware. Apple, for example, may argue that it is remarkably expensive to maintain app stores and operating systems while ensuring that consumers can access secure and high-quality apps. Therefore, it may become difficult to contest that alternative fees are anti-circumvention measures.[42]

Ultimately, the DMA, with its shortcomings and its strengths, stems from the necessity of competition authorities to tackle the ongoing economic arguments with large platforms when implementing app-store obligations. The ex-ante rules allow to gain time while undergoing investigations; the DMA will serve as a complement to antitrust regulations, which typically adopt an ex-post approach to address competition issues (responding after anti-competitive practices have already transpired). The antitrust method, being both time-consuming and specific to very individual and different cases, often seems inadequate to effectively address anti-competitive conduct within the digital sector. The DMA, in contrast, necessitates that firms proactively prevent instances of anti-competitive practices in the very initial stages.[43]

Upon closer examination of the text, it becomes apparent that DMA introduces a few significant advantages. The regulation offers a quick and effective solution to the complex legal issues surrounding platform markets. However, some may perceive the DMA's urgency as a disadvantage, as it seems to disregard the two decades of legal development that emphasized a case-by-case, effects-based approach. Although the DMA may appear

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[41] "With a Little Help from Some Friends: Coordinating Digital Markets Act Enforcement." 2023. Bruegel | the Brussels-Based Economic Think Tank. July 18, 2023. https://www.bruegel.org/blog-post/little-help-some-friends-coordinating-digital-markets-act-enforcement.

[42] "Has the Digital Markets Act Got It Wrong on App Stores?" n.d. Bruegel | the Brussels-Based Economic Think Tank. https://www.bruegel.org/blog-post/has-digital-markets-act-got-it-wrong-app-stores.

[43] "How the European Union Can Best Apply the Digital Markets Act." 2023. Bruegel | the Brussels-Based Economic Think Tank. July 18, 2023. https://www.bruegel.org/blog-post/how-european-union-can-best-apply-digital-markets-act.

to be turning back the clock on legal development, it is crucial to understand that it is a necessary step for regulating platform markets. As we have stressed several times, these environments are characterized by a multisided nature, and their dynamics are unique and complex. Therefore, a more straightforward approach may be the best way to regulate these environments effectively.

The DMA's outlook is appropriate because it recognizes the specificities of platform markets, as it provides a clear and concise set of rules that can be applied uniformly across the EU; the text does not replace existing antitrust laws, but it complements them by addressing the specific issues posed by the digital economy. Thus, although some may see the DMA's “simplicity” as a fault, it is precisely the push needed to regulate platform markets effectively, once the unique nature of these digital environments has been acknowledged.

In this context an ongoing discussion is taking place regarding the direction of competition law. The topic of focus is whether it should shift from promoting consumer welfare to preventing the creation and exercise of economic power. Some proponents argue that maintaining an unobstructed competitive process should be given priority. This, in turn, raises the question of whether the Digital Markets Act (DMA) aligns with this shift in thinking. It is worth noting that the DMA places less emphasis on "consumers" when compared to previous competition policies implemented by the European Commission in previous years. Instead, four terms seem to have the most significance: “contestability,” “fairness,” “business users” and “end users.”

### 4.2 Examining essential Articles for reform

As per recital 32 of the DMA, contestability is defined within the scope of this Regulation as the capacity of undertakings to successfully surmount obstacles to admission and growth, and to confront the gatekeeper based on the merits of their offerings. The contestability of fundamental platform services and their associated ecosystems in the digital sector has been restricted due to various aspects, including network effects, significant economies of scale, and advantages derived from data.[44] This consideration seems to align with traditional competition policy, where provisions against the abuse of dominance target dominant firms that hinder competitors' entry or growth into the markets they dominate. This may involve tactics such as employing abusive contractual clauses to solidify their dominant position. In essence, ensuring fair market access appears to be an integral aspect of established competition policy, although it hasn't always been explicitly grounded in the concept of "contestability" in every case. However, the DMA departs and shifts from established antitrust law by introducing the entirely novel concept of "gatekeeper". This means that the

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[44] European Commission. “Legislation.” *Digital-Markets-Act.ec.europa.eu*, 14 Sept. 2022, digital-markets-act.ec.europa.eu/legislation_en#:~:text=The%20main%20legislative%20texts%20for. Accessed 20 Sept. 2023. “EUR-Lex - 32022R1925 - EN - EUR-Lex.” 2022. Europa.eu. 2022. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022R1925.

conventional principles of competition and dominant position in antitrust law cannot be directly, or at least entirely, transposed onto these new regulations.

Recital 33 focuses on the concept of unfairness, relating it to "an imbalance between the rights and obligations of business users where the gatekeeper obtains a disproportionate advantage."[45] The DMA's dedication to upholding fair markets appears to diverge from traditional competition policy. While antitrust law utilizes the term "fair", it primarily addresses distributive fairness. In contrast, the DMA's use of "fairness" extends beyond distributive justice to encompass equitable conduct in competition. For instance, gatekeepers can not prioritize themselves when publishing rankings, they can't engage in bundling practices when promoting desirable products, or employ data obtained through business users' activities to compete against them. In essence, the DMA strives to establish a standard of ethical behavior that major providers of core platform services must abide by, surpassing a mere antitrust objective.

Leveraging the expertise and hands-on insights acquired by competition authorities in the realm of app stores, and by taking into account the grievances raised by app developers within the market, which have been brought to the European Commission's attention, the DMA consolidates a multitude of provisions specifically tailored to address the dynamics of app stores and the dominant control exercised by their proprietors.

For example, Article 5(4) of the DMA establishes an obligation for gatekeepers, requiring them to permit business users to engage in cost-free communication and promotion of their offers to end users, whether those users were acquired through the gatekeeper's primary platform service or other distribution channels.[46] This capability for app developers to directly interact with consumers and promote their offerings across various distribution channels, particularly in scenarios where different terms and conditions apply outside the App Store, draws parallels with the ongoing dispute concerning Apple's imposition of anti-steering obligations on developers. This same behavior is presently under examination by the European Commission's DG Comp, prompted by Spotify's complaint against Apple's anti-steering obligations, and is being evaluated in the context of Article 102 TFEU, as we anticipated in section 2. [47]

This provision is closely aligned with Recital 40 of the DMA, which elucidates its purpose: encouraging multi-homing among end-users. Article 5(4) of the DMA is not universally applicable and considers the pre-existing relationship between the end user and the business (third-party) user. Recital 40 of the DMA specifically

[45]European Commission. "Legislation." *Digital-Markets-Act.ec.europa.eu*, 14 Sept. 2022, digital-markets-act.ec.europa.eu/legislation_en#:~:text=The%20main%20legislative%20texts%20for. Accessed 20 Sept. 2023.
[46] European Commission. "Legislation." *Digital-Markets-Act.ec.europa.eu*, 14 Sept. 2022, digital-markets-act.ec.europa.eu/legislation_en#:~:text=The%20main%20legislative%20texts%20for. Accessed 20 Sept. 2023.
[47] Ribera Martìnez, Alba . "Third Workshop on the DMA - This Is Not a Blueprint for the DMA: The Proof of the App-Store Pudding Is in the Eating." *Kluwer Competition Law Blog*, 7 Mar. 2023, competitionlawblog.kluwercompetitionlaw.com/2023/03/07/third-workshop-on-the-dma-this-is-not-a-blueprint-for-the-dma-the-proof-of-the-app-store-pudding-is-in-the-eating/.

emphasizes that this obligation pertains solely to acquired end users. In other words, it applies to end users who have already established a commercial relationship with the business user, whether on a paid or free basis. Therefore, the ability to communicate and promote their offerings to end users does not encompass steering consumers exclusively toward third parties. Instead, it encompasses the potential to foster and strengthen existing relationships between business users and their customers, free from undue gatekeeper interference.

Moreover, Article 5(5) mandates gatekeepers to enable end users to access and utilize content, subscriptions, features, or other offerings provided by a business user through their software application via the gatekeeper's core platform services. This requirement applies even in cases where end users obtained such items directly from the respective business user, without any involvement or assistance from the gatekeeper's services. [48]

Article 5(7) of the DMA addresses a significant portion of the concerns raised by the industry over the past few years regarding app stores. Specifically, it pertains to the practice of tethering a developer's in-app payment services (as well as identification services, web browser engines, or other technical services) to the ecosystem holder's exclusive billing systems. This practice closely resembles the issue that Apple has been contesting in various jurisdictions over the past five years, including cases brought before authorities. The idea behind the linkage of the gatekeeper's in-app payment services with the entire spectrum of payments conducted within the ecosystem is rooted in their fee-based business model. In the realm of mobile systems, both app store ecosystem operators and mobile device operating system providers sustain their array of services by levying charges on developers when they utilize their app stores and when users make purchases on their devices. As such, Article 5(7) of the DMA is designed to put an end to gatekeepers' previous practices concerning in-app payments and to facilitate unrestricted in-app purchases within the mobile ecosystem. This is intended to safeguard the liberty of business users to opt for alternative services instead of those provided by the gatekeeper, even if the business user is not obligated to offer such alternatives if they choose not to, as stipulated in Recital 43 of the DMA. [49]

In contrast to the fairness-oriented goals presented in the preceding provisions of Article 5 within the DMA, the issue of contestability is addressed through a series of regulations delineated in Article 6 of the DMA, specifically concerning app stores. These provisions pertain to the novel framework for accessing online content and services through diverse distribution channels, as opposed to the current mobile ecosystem where

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[48] European Commission. “Legislation.” *Digital-Markets-Act.ec.europa.eu*, 14 Sept. 2022, digital-markets-act.ec.europa.eu/legislation_en#:~:text=The%20main%20legislative%20texts%20for. Accessed 20 Sept. 2023.

[49] Ribera Martìnez, Alba . “Third Workshop on the DMA - This Is Not a Blueprint for the DMA: The Proof of the App-Store Pudding Is in the Eating.” *Kluwer Competition Law Blog*, 7 Mar. 2023, competitionlawblog.kluwercompetitionlaw.com/2023/03/07/third-workshop-on-the-dma-this-is-not-a-blueprint-for-the-dma-the-proof-of-the-app-store-pudding-is-in-the-eating/.

actions like side-loading apps and downloading alternative app stores are restricted, particularly within the Apple App Store.

Concerning the practice of side-loading apps within mobile ecosystems, Article 6(4) of the DMA necessitates the availability of alternative avenues for distributing native apps. This requirement encompasses both the expansion of these ecosystems to accommodate side-loaded apps (those not officially supported in an app store) and the inclusion of native apps from alternative app stores distinct from Apple's. [50]

Promoting a balanced approach that takes into account the interests of all stakeholders appears to be the prudent course of action. The DMA is poised to both introduce and eliminate the constraints that gatekeepers have employed to fortify their ecosystems against emerging competitors, particularly other ecosystem operators offering similar or even more advanced services. Undoubtedly, the impact of these provisions will bring about gradual changes in the current mobile ecosystem, potentially paving the way for a significant transformation towards a more open and competitive market.

If we consider the crucial, yet very different, roles of business users and end users over the past two decades, in its enforcement activities, the Commission has frequently asserted that competition law is designed to promote consumer welfare. However, a significant portion of the Digital Markets Act's (DMA) behavioral stipulations goes beyond safeguarding the interests of end users. Instead, they frequently yield advantages for business users, who represent the counterpart in a two-sided market when compared to end users. The term "business user" is prominently featured in both the provisions and recitals of the DMA, underscoring the Act's recognition of the pivotal role played by this category of users of core platform services.[51]

For various reasons, the Digital Markets Act does not seem to evolve organically from competition law; rather, it is presented as something distinct and innovative. The divergence between the DMA and traditional competition law is most explicitly found in the fact that its main goal is to ensure that markets in which gatekeepers are present and dominant, operate properly and remain open and contestable, regardless of the actual, probable, or assumed impacts of a specific gatekeeper’s conduct on competition (recital 11).[52]

This new regulation represents a powerful tool for navigating the complex digital markets, as it embraces the new and modern challenges faced by competition authorities while rekindling with the roots of antitrust law

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[50] Ribera Martìnez, Alba . “Third Workshop on the DMA - This Is Not a Blueprint for the DMA: The Proof of the App-Store Pudding Is in the Eating.” *Kluwer Competition Law Blog*, 7 Mar. 2023, competitionlawblog.kluwercompetitionlaw.com/2023/03/07/third-workshop-on-the-dma-this-is-not-a-blueprint-for-the-dma-the-proof-of-the-app-store-pudding-is-in-the-eating/.

[51] Bania, Konstantina, Sean-Paul Brankin, Jean Cattan, Francis Donnat, Damien Geradin, Martin d’Halluin, Pierre Larouche, et al. 2022. “The Digital Market Act.” *Concurrences Review*, no. N° 3-2022 (September). https://www.concurrences.com/en/review/issues/no-3-2022/on-topic/the-digital-market-act#nb19.

[52] European Commission. “Legislation.” *Digital-Markets-Act.ec.europa.eu*, 14 Sept. 2022, digital-markets-act.ec.europa.eu/legislation_en#:~:text=The%20main%20legislative%20texts%20for. Accessed 20 Sept. 2023.

that aimed at, inter alia, safeguarding small businesses from the power positions of competitors.[53] The new objective seems to be protecting the competitive process, to then witness an increased welfare for consumers as well. Often, in these digital ecosystems, end-users lack the technical knowledge to comprehend to what extent their rights are overlooked; the Digital Markets Act presents a forward-looking change of narrative in which both business-users and end-users belong to the same "team" of the two-sided market. Protecting competitors ultimately leads to safeguarding consumers; both sides of the market seem to require similar protection from unfair treatment since both rely on the utilization of the platform service, dominated by gatekeepers.

## 1. Conclusion

Having walked through the European Commission's complaints against Apple, we analyzed what market power can look like in the context of digital platforms and digital app markets. We described these evolving ecosystems and delved into the positions of dominance Apple and Google hold against various smaller competitors. After Spotify's EU complaint against Apple, in June 2020 the European Commission opened formal antitrust investigations to assess whether Apple's rules for app developers on the distribution of apps via the App Store violate EU competition rules.

Ultimately, the Commission accused Apple of abusing its dominant position by restricting app developers' ability to inform iPhone and iPad users of alternative music subscription services, with the preliminary view that these anti-steering obligations are unfair trading conditions that breach article 102 'TFEU'. Such obligations: (i) are neither necessary nor proportionate for the provision of the App Store on iPhones and iPads; (ii) are detrimental to users of music streaming services on Apple's mobile devices who may end up paying more; and (iii) negatively affect the interests of music streaming app developers by limiting effective consumer choice.[54]

Moving forward from the Commission's complaints, we looked deeper into the concept of abuse of dominance and what it implies from a legal standpoint. Having assessed Apple's role and conduct in the market, we commented the company definitely holds a position of dominance and does, in various ways, abuse such power, whereby the essence of a dominant position revolves around an undertaking's capacity to shape the

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[53] Bania, Konstantina, Sean-Paul Brankin, Jean Cattan, Francis Donnat, Damien Geradin, Martin d'Halluin, Pierre Larouche, et al. 2022. "The Digital Market Act." *Concurrences Review*, no. N° 3-2022 (September). https://www.concurrences.com/en/review/issues/no-3-2022/on-topic/the-digital-market-act#nb19.
[54] European Commission. "Press Corner." *European Commission - European Commission*, 28 Feb. 2023, ec.europa.eu/commission/presscorner/detail/en/ip_23_1217.

conduct of diverse market participants. We found Apple’s role as a gatekeeper disadvantaging numerous developers and business users; undoubtedly, the company’s platform serves as an essential facility in the market, and restricting access to such facility ultimately impedes competitors from having a fair chance at growing and reaching consumers.

As this discussion concerns a vertically integrated market, we observed Apple holds significant power considering the App Store is the only avenue for other developers to reach potential consumers possessing an iPhone. In this way, the company results faulty as it conducts business practices often at the detriment of smaller developers while self-preferencing its own activities; the use of a double standard masked by ambiguous apprehension towards consumers’ rights and privacy protection, as demonstrated by the App Tracking Transparency policy, ultimately led us to believe Apple is fully aware of the disadvantage it causes to other market participants and simply isn’t fazed by it.

In conclusion, the allegations against Apple regarding its abuse of dominance in the digital market of apps, as addressed by the European Commission, underscore the pressing need for regulatory intervention to ensure fairness and competition within the ecosystem. The Digital Markets Act (DMA) emerges as a pivotal step towards rectifying these issues by introducing comprehensive regulations aimed at preventing anti-competitive practices and safeguarding the interests of both business users and consumers. Apple's actions, which have drawn scrutiny for their perceived unfairness, underscore the significance of legal frameworks like the DMA in fostering a digital marketplace that is characterized by innovation, choice, and equitable opportunities for all stakeholders. As the DMA, with its drawbacks and its strengths, takes center stage, it signals a promising shift towards a more balanced and competitive digital landscape, where gatekeepers are held accountable for their conduct, and market dynamics are recalibrated to promote fairness and competition.

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