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Dr Despoina Mantzari[*]

Abstract

Restoring fairness and contestability in digital markets has been an important driver behind the adoption of the DMA. This article aims to advance a normative account of how fairness and the concept of 'FRAND', should be understood and operationalised in the context of Article 6(12) of the DMA. In doing so, it focuses on the Apple (iOS) app store as its main case study. The article carefully draws inspiration from various areas of EU Law where FRAND principles have been relied on, mostly SEPs, communications regulation and competition law, to derive some principles that could help operationalise the Article 6(12) provision. This is significant because the European Commission has so far prioritised contestability of the app stores over fairness considerations in the hope that credible competition from alternative app stores will force its terms and conditions to be fair. However, contestability may be infeasible or only very limited due to demand and technological constraints. Therefore, sooner or later the European Commission may have no alternative but to determine whether the terms and conditions offered in the App Store are FRAND. The article directly contributes to the ongoing academic and policy debate on this thorny issue.

Keywords: FRAND, fairness, contestability, DMA, app stores, ecosystems, P2B, competition law

1. Introduction

Restoring fairness and contestability in digital markets has been an important driver behind the adoption of the DMA. And although fairness and contestability are not the same, they are clearly intertwined. As the DMA explains, 'the lack of, or weak, contestability for a certain service can enable a gatekeeper to

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engage in unfair practices. Similarly, unfair practices by a gatekeeper can reduce the possibility of business users or others to contest the gatekeeper's position'.[1] The interrelationship between fairness and contestability is nowhere made more apparent than in Article 6(12) which provides that gatekeepers active in a wide set of core platform services ('CPS'), including app stores, search engines and social media platforms, should apply FRAND, that is Fair, Reasonable and Non-Discriminatory (price and non-price) general conditions of access for business users of those services (hereinafter FRAND platform access). Loyal to the contestability objective, the provision aims to facilitate access to essential infrastructure, e.g. an app store, in order to generate more competition downstream or even the development of rival infrastructure. It also seeks to redistribute some rents so as to bring about fairness in the relationship between CPS and their business users.[2] But when one reflects on the appropriate level of FRAND platform access price, it is made apparent that there exists a fundamental trade-off between the two: If the FRAND access price is too low, it risks undermining contestability, i.e., the incentives of the gatekeepers' rivals to contest the relevant core platform service. If the access price is too high, then the provision may fail to address the power imbalance between gatekeepers and business users. Getting FRAND right in the standardisation context, where it first emerged, is an incredibly complicated task, let alone in digital markets that are characterised by products whose value stems primarily from intangible assets (e.g. brand, research, human capital). This is one of the main reasons why the enforcement of Article 6(12) has been proven so difficult thus far despite the latter's potential to address head on the power imbalances between gatekeepers and business users. Indeed, Article 6(12) seeks to prevent gatekeepers from imposing (price or non-price) terms of access that are 'unfair' or which result in 'unjustified differentiation'. According to Recital 62, pricing or other general conditions of access are 'unfair' if they lead to 'an imbalance of rights and obligations imposed on business users or confer an advantage on the gatekeeper which is disproportionate to the service provided by the gatekeeper to business users or lead to a disadvantage for business users in providing the same or similar services as the gatekeeper'.[3]

This article is the first to explore the theoretical and legal underpinnings of Article 6(12) of the DMA and the intricacies surrounding its implementation. In doing so, it focuses on Apple's iOS app store as its main case study.

[1] Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act) OJ L 265/2022, Recital 34 (hereinafter 'DMA').

[2] F Scott Morton and C Caffarra, 'The European Commission Digital Markets Act: A Translation' (5th January 2021) available at: https://cepr.org/voxeu/columns/european-commission-digital-markets-act-translation (last accessed 23 July 2024).

[3] DMA, Recital 62.

App stores, where Apple and Google have been designated as gatekeepers,[4] serve well as a case study as they very much reflect the imbalance of power between the platform and the business users/app developers. Think of buying a new smartphone. You expect to be able to download and use a wide variety of apps. App stores play a critical function in the distribution of those apps, as they are the main, in the case of Google Android devices, if not the only, in the case of Apple iOS devices, channel through which apps can be downloaded and used. However, as has been recognised by competition authorities, App Store and Google Play have become bottlenecks for app developers wishing to reach app users, thus affording Apple and Google respectively with the power to engage in exclusionary and exploitative practices to the detriment of app developers and mobile device users. These concerns have been voiced most forcefully with regard to the iOS App Store in various lawsuits and complaints filed on both sides of the Atlantic,[5] concerning third party apps trying to circumvent app-store fees they deem unfairly high. Indeed, both Apple and Google have come under fire in recent years over the fees they charge to third-party app developers using their respective stores. They argue that their ecosystems have created enormous value by giving third parties a platform to develop and distribute new products on a global scale, and that their fees reflect this opportunity. App developers on the other hand, have argued that commissions are extortionate and reflective of app stores' market power. Article 6(12) of the DMA now introduces the requirement of FRAND terms.

However, as experience in Standard Essential Patents (SEPs) has taught us, determining what is FRAND is not a straightforward legal or economic question. The DMA's provision that access conditions should be FRAND leaves open the question of what 'fair and reasonable' conceptually means, even putting aside the measurement issue. Given the practical difficulties surrounding access pricing for intangible assets, it is no surprise that the DMA and the EC have so far refrained from saying what FRAND is. Instead, the issue has been outsourced to the parties: The DMA promotes a decentralised approach to the implementation of Article 6(12), whereby the EC oversees the implementation of FRAND, as the latter derives from a bargaining process between the gatekeeper(s) and the business users. In fact, as we shall see, this process resembles the procedural approach endorsed

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[4] EC Press Release, 'Digital Markets Act: Commission designates six gatekeepers' (6th September 2023) available at https://ec.europa.eu/commission/presscorner/detail/en/ip_23_4328. (last accessed 23 July 2024).

[5] For an analysis see D Geradin and D Katsifis, 'The Antitrust Case Against the Apple App Store' (2021) 17 (3) JCLE 503. See ACM (2021), 'Summary of Decision on Abuse of Dominant Position by Apple' available at: <https://www.acm.nl/sites/default/files/documents/summary-of-decision-on-abuse-of-dominant-position-by-apple.pdf> (last accessed 23 July 2024). See also *Epic Games v Apple Inc*, No. 21-16506 (9th Cir. 2023); Commission Press Release of 4 March 2024, 'Antitrust: Commission fines Apple over €1.8 billion over abusive App store rules for music streaming providers' available at:< https://ec.europa.eu/commission/presscorner/detail/en/ip_24_1161> (last accessed 23 July 2024). See also Dutch case: https://www.reuters.com/technology/dutch-regulator-disputes-apples-commissions-dating-app-case-2023-10-31/ (last accessed 23 July 2024). See also CMA, 'Investigation into suspected anti-competitive conduct by Google' (10 June 2022) now closed ahead of the new digital markets regime coming into force, press release available at: https://www.gov.uk/government/news/cma-looks-to-new-digital-markets-competition-regime-to-resolve-app-store-concerns (last accessed 23 August 2024).

by the Court of Justice of the European Union (CJEU) in *Huawei*.[6] Instead of adopting a substantive strategy, i.e. calculating royalty rates by comparison,[7] the CJEU in *Huawei* imposed a procedural framework for good faith SEP licensing negotiations identifying the steps that patent holders and implementers must follow in negotiating a FRAND royalty.

Against this backdrop, the article's goal is two-fold. First, it aims to make a normative contribution to the ongoing academic and policy debate[8] on FRAND in the DMA by offering the first rigorous examination of how the concept ought to be understood in the digital economy. In doing so, it carefully draws inspiration from other areas of EU Law where FRAND principles have been relied on, mostly SEPs, telecoms regulation and competition law, so as to derive some principles that could help operationalise the Article 6(12) provision. This is significant because, as the ensuing discussion will reveal, the EC has so far prioritised contestability of the app stores over fairness considerations in the hope that credible competition from alternative app stores will force its terms and conditions to be fair.[9] However, contestability may be 'infeasible or only very limited'[10] due to demand and technological constraints. Entry and expansion may not occur due to network effects, economies of scale and scope, and/or coordination problems.[11] Therefore, sooner or later the EC may have no alternative but to determine whether the terms and conditions offered in the App Store are FRAND. Laying down principles for operationalising FRAND is also significant in light of the antitrust developments on the other side of the Atlantic: The way the DMA fairness objective will be implemented may directly inform the US Department of Justice (DOJ) remedies in the Apple monopolisation case filed in March 2024, if the US government wins the case.[12]

Secondly, the article will examine the rule of law implications of the EC's decentralised and procedural approach to FRAND. It will argue that while outsourcing the issue to the gatekeepers and business users may represent a pragmatic approach considering the difficulties of implementing FRAND in the digital economy, it, nonetheless, has unintended consequences for the business users: It increases their costs with very limited opportunities for meaningful redress. The article concludes with

[6] C-170/13, *Huawei Technologies Ltd. v. ZTE Corp*., EU:C:2015:477.
[7] *Unwired Planet International Ltd and another (Respondents) v Huawei Technologies (UK) Co Ltd and another* (Appellants) [2020] UKSC 37.
[8] See e.g. J Padilla, 'Fairness and Contestability in the Provision of Software Application Stores Services' (2024) 12 (2) JAE 309; D Geradin, 'Implementing Article 6(12) of the Digital Markets Act: Implementing the FRAND requirement' available at: https://theplatformlaw.blog/2023/07/10/article-612-of-the-digital-markets-act-implementing-the-frand-requirement/ (last accessed 23 July 2024).
[9] EC Press Release, 'Commission sends preliminary findings to Apple and opens additional non-compliance investigation against Apple' (24 June 2024) available at: https://digital-markets-act.ec.europa.eu/commission-sends-preliminary-findings-apple-and-opens-additional-non-compliance-investigation-2024-06-24_en (last accessed 23 July 2024).
[10] See J Crémer et al, 'Fairness and Contestability in the Digital Markets Act' (2024) 40 Yale J Regul 973.
[11] See Padilla (n 8) above.
[12] *U.S and Plaintiff States v. Apple Inc*. (21 March 2024) para. 19.available at: https://www.justice.gov/opa/pr/justice-department-sues-apple-monopolizing-smartphone-markets (last accessed 23 July 2024).

some recommendations on how to overcome this bargaining asymmetry between gatekeepers and business users in the FRAND determination process.

The remainder of the article is structured as follows. Section 2 unpacks the technological and private governance mechanisms that build up the app stores and the iOS App store, in particular. In doing so it explores the relationship between the platform and the business users through the lenses of ecosystems theory. This exercise serves to expose the various sources of dependence of business users on the platform/app store and to cast fresh light on what constitutes 'unfairness' in this context. Having provided the reader with a solid background on the operation of the app store, section 3 explores the main areas of EU law where FRAND obligations have been imposed and/or litigated. It will be shown that FRAND platform access sits at the intersection of various governance regimes, such as the DMA, competition law and SEPS. Drawing on these regimes, section 4 puts forward a normative framework for assessing fairness and non-discrimination. Finally, section 5 offers some concluding thoughts on the way forward casting a critical eye on the EC's current approach to Article 6(12) and the unintended consequences it creates for business users.

2. Understanding the iOS App store

According to the DMA's list of CPS, app stores qualify as 'online intermediation services'.[13] The DMA defines 'software application stores' as 'a type of online intermediation services, which is focused on software applications as the intermediated product or service'.[14] This definition also captures the operating systems app stores are embedded in.[15] The system Apple uses to levy its fee on app developers is called In-App Purchase (IAP). Because different obligations relate to the payment system for in-app purchases, the DMA defines the latter as 'a software application, service or user interface which facilitates purchases of digital content or digital services within a software application, including content, subscriptions, features or functionality, and the payments for such purchases'.[16]

A significant number of the DMA's obligations specifically target app stores, and in particular the iOS App Store, with the aim to deliver contestability and fairness. Before examining these obligations and how they interact with the FRAND provision, it is important to gain a better undertstanding of the contractual and technological layers that build up the app stores, and the Apple store in particular. This will allow us to better appreciate the various sources of dependence of business users on the platform/app store.

[13] DMA, art 2(2)(a).
[14] DMA, art 2(14), see art 2(15) for a definition of 'software application'.
[15] DMA, art 2(2)(f).
[16] DMA, art 2(18).

A. App stores as ecosystems

App stores can be conceptualised as ecosystems, comprised of two main independent actors (the ecosystem members), i.e., the platform/app store and the business users/app developers, that all create joint value. Lianos and Jacobides have provided the first authoritative analysis on ecosystems in this context.[17] Ecosystems consist of 'a community of interdependent actors, which exhibit unique or supermodular, non-generic complementarities, forming a modular architecture and requiring an alignment structure to maximise their joint value'.[18] What sets the interdependence in ecosystems apart from other types of organisational labour division, such as supply chains, is the fact that the value of the ecosystem is greater than the sum of the different parts (i.e. the complements and the core functions). Each member contributes to the ecosystem that in turn leads to the emergence of the so-called 'ecosystem glue'. Crucially, the joint value creation by several players cannot be achieved by any one of the individual players in isolation.[19] This creates, in turn, strong interdependencies between the ecosystem members. The relationships between the ecosystem members, however, are not solely cooperative. Since ecosystem members are independent actors, they commonly have incentives to maximise their respective value capture, which leads to competition between actors within the same module or in nascent modules. The resulting ambivalence of the relationship between ecosystem members has led to the description of the ecosystem as a system of 'co-opetition'.[20] Relationships thus are characterised by a mixture of simultaneous cooperation and competition between those affiliated with the network.[21]

Understanding the relationship between the platform and the business users through the lenses of ecosystems theory casts fresh light on what constitutes 'unfairness' in this context as the dependence on the platform/app store, may become a source of network disadvantage and differential rents. The fairness objective animating FRAND platform access comes now into greater focus: it seeks to ensure fairness in the allocation of the surplus generated by the expansion of the network between the platform and the business users, considering the network-related ecosystemic added value and the joint contributions of all members of the ecosystem to it. Indeed, the fairness/distributive justice aspect of the platform/business users relationship has long been debated in the academic literature. For example,

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[17] M. Jacobides & I. Lianos, 'Regulating platforms and ecosystems: an introduction' (2021) 30(5) Industrial and Corporate Change 1131.

[18] See I Lianos, KH Eller and T Kleinschmitt, 'Towards a Legal Theory of Digital Ecosystems' (2024) 2/2024 CLES Research Paper Series available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4849340 (last accessed 31st July 2024) p. 11. See also M Jacobides, C Cennamo and A Gawer, 'Towards a Theory of Ecosystems' (2018) 39(8) Strategic Management Journal 2255 ('Ecosystems have been defined as "groups of firms that must deal with either unique or supermodular complementarities that are nongeneric, requiring the creation of a specific structure of relationships and alignment to create value').

[19] C Baldwin,' Ecosystems and Complementarity' Harvard Business School Working Paper (August 2020) 1.

[20] N Petit and DJ Teece, 'Taking Ecosystems Competition Seriously in the Digital Economy: A (Preliminary) Dynamic Competition/Capabilities Perspective (2020) OECD, DAF/COMP/WD (2020) 90, para. 17.

[21] A Brandenburger and BJ Nalebuff, *Co- opetition* (Doubleday 1997).

Lianos[22] and Jacobides and Lianos[23] have highlighted the contribution to the co-creation of value of not only business users but also of other stakeholders, such as labour, consumers, but also the local community and citizens. All these actors form part of the broader business ecosystems that power the global digital economy and generate value, which predominately benefits the shareholders of the large digital platforms, through the distribution of dividends and buy backs.[24]

For complementarities to emerge, the modular structure of ecosystems requires organising principles and rules to enable the technical interoperability between the various modules. However, complementarities may not only result from the underlying technical system, i.e. the software underpinning the iOS store in our case, but are crucially dependent on the existence of ecosystem rules and governance of cooperation and membership. These rules are typically enshrined in contracts or may be soft rules. Without these rules, ecosystems can experience 'value network failures'.[25] As Lianos observes, these may stem either from the lack of coordination between the independent firms interacting in the ecosystem or 'systemic innovation' failures arising out of difficulties in developing components or complements that support the innovation system in question.[26] The next section will delve into Apple's terms and conditions that govern its relationship with app developers providing services on the operating systems of the iPhone and iPad, so as to appreciate how the ecosystem rules of governance create sources of dependence for business users.

B. The iOS App store: Ecosystem Rules of Governance

A largely forgotten fact is that when the iPhone was first launched back in 2007, there was no app store and no possibility to add new programmes and third-party apps. A powerful device capable of so much more yet locked down. All native apps for the iPhone, around twelve overall,[27] were created by Apple. Developers could build apps for the iPhone only going through the Safari browser. It was only when Apple launched the second version of the iPhone, the iPhone 3G in 2008, that native third-party apps became a possibility. However, such apps had to be distributed *exclusively* through the App strore. Additionally, Apple locked down what native third-party apps could do, such as restricting which Application Programming Interfaces (APIs) they can access behind user permissions. This is in sharp contrast to the operating systems of Windows, macOS and Linux, where users can install any

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[22] I Lianos, 'Value extraction and institutions in digital capitalism: Towards a law and political economy synthesis for competition law' (2022) 1(4) European Law Open 852; I Lianos, 'Competition Law for the Digital Era: A Complex Systems' Perspective' (August 30, 2019). available at SSRN: https://ssrn.com/abstract=3492730 (last accessed 23 August 2024).
[23] Jacobides and Lianos (n 17) above.
[24] I Lianos & A McLean, 'Competition Law, Big Tech and Financialisation – The Dark Side of the Moon', in M Corradi and J Nowag (eds), *Intersections between Corporate and Antitrust Law* (CUP 2023) 319.
[25] Lianos et al (n 18) 1.
[26] Ibid.
[27] Including Calendar, Camera, Clock, Contacts, iPod, Messages, Notes, Phone, Photos, Safari, Stocks, Voice Memos, and Weather.

application they want with no interaction from the operating system gatekeeper. Following the introduction of the App Store, iPhone sales really took off.[28] The success of the iPhone became thus inextricably linked to the success of the App Store: software and hardware went hand-in-hand. The iPhone and App Store led Apple to be currently valued at over $2.5 trillion. In fiscal year 2023, Apple generated annual net revenues of $383 billion and net income of $97 billion. Apple's net income exceeds any other company in the Fortune 500 and the gross domestic products of more than 100 countries.[29]

Through the exclusive distribution of Apps via the App Store, Apple could control what is allowed to be installed on devices they had already sold to consumers often for a significant profit. To run the App store, Apple would take a 30% commission from the sale of every app through its IAP system. It is this fee that has been at the centre of antitrust battles involving primarily Epic games. Allegedly, the fee is a demonstration of Apple's ecosystem orchestrator power, simply because it can control the only mechanims available to business users to release that software and through the so-called 'anti-steering rules' it can further block or hinder the consumer from using or acquiring services outside the app store, as we shall see below.

Questions are also raised regarding the discriminatory nature of the fee: Apple does not levy its 30% commission on the sale of physical goods or services (e.g. an Uber ride). Only developers of digital goods and services (e.g. music streaming and video games) are subject to Apple's fee. However the developers of these digital goods, such as e-books, music streaming (Spotify) and video services (Netflix) often face high marginal costs due to royalty payments to rightsholders that may not allow them to have 30% margin left to Apple.[30] While Apple lowers the fee after the first year of subscription to 15%,[31] the App Store has 'antisteering rules' in place – the focus of the EC's recent investigation into Apple's practices[32] - that do not allow developers to let their costumers purchase/subscribe to their services via the web and access their content in-app. At the same time, Apple happens to operate services (iBooks, Apple Music, Apple TV+) that compete with those bearing its 30% fee.

Turning to the competitive dynamics, Apple has faced some competition from Google's mobile operating system, Android. Unlike Apple's 'closed' operating system, Android is open not only to app developers, but also to smartphone makers, which can freely license Android to run on their devices. This business model was driven by the realisation that the ongoing shift from desktop to mobile propelled by the iPhone might lead the very successful Google search (ads) business to the brink of

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[28] F Vogelstein, *Battle of the Titans: How the Fight to the Death Between Apple and Google is Transforming our Lives* (William Collins 2014) 185 ('iPhone sales didn't really take off before Jobs introduced the App Store').
[29] *U.S v. Apple Inc* (n 12) para. 19.
[30] F Bostoen, 'Understanding the Digital Markets Act' (2023) 68(2) The Antitrust Bulletin 263, 295.
[31] The fee for small developers (with less than $1 million of sales) was similarly decreased to 15%.
[32] See EC Press Release, *Commission Fines Apple over €1.8 Billion over Abusive App Store Rules for Music Streaming Providers* (n 5) above.

exinction.[33] Thus Google acquired and then further developed a mobile operating system. To safeguard its prime products, Android would have Google's browser and search app pre-installed, and include its own app store: the Play Store. Google's strategy was successful, and Android and iOS ended up dividing the mobile operating systems market between them.[34] Not only the two companies now form a powerful duopoly, but they also struck a win-win deal: as revealed in Court, in order for Google to reach iOS users it pays Apple $8–20 billion yearly to be the default search engine on Safari. That accounts for 14-16% of Apple's annual operating profits.[35]

There are more Android phones than iPhones and given that they come with the Play Store pre-installed, the installed base of the Play Store is actually larger than the App Store. But consumer spending is a better measure of competitive significance and on that front, the App Store beats Google two to one. Largely in line with that two-to-one ratio, the U.S. judge in *Epic v Apple* put the App Store's market share at around 60% for 2020.[36]

However, as economists have underlined, the competitive situation between the App Store and Google Play is a bit more complex.[37] Developers need to multihome, especially if their product is driven by network effects, which means they need to attract many users. Consumers, by contrast, single-home, in that they only have access to one app store, namely the one that comes with the mobile operating system they purchase, which is in turn determined by the smartphone they purchase. Consumers are, however, unlikely to fully account for the price they will be paying for apps in their purchase decision. There is thus a degree of competition, but a rather indirect one on the consumer side. For that reason, competition authorities place Google Play and the App Store in different, ecosystem-specific aftermarkets.[38] In the aftermarket of app distribution on iOS devices Apple holds a 100% market share. As the App store grew, the ecosystem created enormous value for the developers too. A study commissioned by Apple found that the App Store ecosystem facilitated $643 billion in commerce in

[33] As also detailed in Google Android (Case AT.40099) Commission Decision of 18 July 2018, paras 112–30.
[34] CMA, Mobile Ecosystems Market Study Final Report (10 June 2022) available at: https://www.gov.uk/government/publications/mobile-ecosystems-market-study-final-report (last accessed 31 July 2024).
[35] Bloomberg, 'Google's Payments to Apple Reached $20 Billion in 2022, Antitrust Court Documents Show' 1 May 2024 available at: https://www.bloomberg.com/news/articles/2024-05-01/google-s-payments-to-apple-reached-20-billion-in-2022-cue-says?embedded-checkout=true (last accessed 23 July 2024).
[36] U.S. District Court for the District of Northern California, Case 4:20-cv-05640-YGR, *Epic Games, Inc. v. Apple, In*c., 10 September 2021 , 87–88.
[37] See L Cabral, J Haucap, G Parker, G Petropoulos, T Valletti and M Van Alstyne, 'The EU Digital Markets Act' (A Report from a Panel of Economic Experts) 2021, 17–18.
[38] ACM, 'Market study into mobile app stores' (Report ACM/18/032693) 2019; Google Android (Case AT.40099) Commission Decision (where the EC defined an Android-specific app store aftermarket).

2020.[39] Apple collected 85 billion USD in App Store fees in 2022, of which it keeps approximately 30%.[40]

The source of this success is not only owing to Apple's superior technology over that of its competitors, but most crucially to the private governance mechanisms in place, i.e. the ecosystem rules and governance of cooperation and membership that allow complementarities to emerge. These are often enhrined in contract law and allow Apple to extract value from app developers who contribute to the success of its closed ecosystem protecting the firm from competition. The recent US DOJ case against Apple offers valuable insights into how 'locking key user groups allows Apple to capture greater spending on iPhone-related products and services, realize higher margins per user as compared to its smartphone rivals, and exercise greater control over developers and other smartphone ecosystem participants'.[41] Similarly, in the EC's Apple-App Store Practices decision,[42] the Commission noted that when it comes to dominance over app developers, the developers have no alternatives and that Apple decides the rules governing the App store unilaterally, it enjoys sole discretion to decide if a developer app will be distributed and its eligibility guidelines change continuously.[43] At the same time relationships of co-petition emerge, as third-party products and services can, in the words of Apple executives, be 'fundamentally disruptive'[44] to its smartphone monopoly, decreasing users' dependence on Apple and the iPhone and increasing competitive pressure on Apple. The DOJ observes that 'Apple therefore willingly sacrifices the short-term benefits it would gain from improved products and services developed by third parties when necessary to maintain its monopoly'.[45]

Zooming in the private governance mechanisms in place, we observe a number of contractual and other internal governance instruments which are capable of marginalising competing platforms and ecosystems through strategic foreclosure of competitiors. First, there are rules aiming to control how developers distribute and create apps for iPhone users. Specifically, as the DOJ notes, Apple sets the conditions for apps it allows on the Apple App Store through its App Store Review Guidelines. Under these guidelines, Apple has sole discretion to review and approve all apps and app updates. The App Store rules are often enforced unilaterally and can be used to penalise and restrict developers that take

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[39] J Borck, J Caminade and M von Wartburg, 'A Global Perspective on the Apple App Store Ecosystem' (Analysis Group Study) June 2021.
[40] CNBC, 'Apple's App Store Growth is Slowing Down' (10 January 2023) available at <https://www.cnbc.com/2023/01/10/apple-app-store-revenue-update-shows-slowing-growth-.html#:~:text=If%20all%20developers%20paid%20a%2030%25%20cut%20to,billion%20in%202022%2C%20based%20on%20a%20CNBC%20analysis> (last accessed 23 July 2024).
[41] *U.S v. Apple Inc* (n 12) para. 23.
[42] Case AT. 40437, Apple-App Store Practices (music streaming), 4 March 2024. References are made to the provisional, non-confidential version of the decision which was made available in May 2024.
[43] Ibid. 346-347.
[44] *U.S v. Apple Inc* (n 12) para. 40.
[45] Ibid., para. 40.

advantage of technologies that threaten to disrupt, disintermediate, compete with, or erode Apple's monopoly power.[46]

Second, APIs are powerful technological governance tools to control app creation, as Apple can decide which APIs are available to developers when they make third-party apps. Developers cannot provide native apps on the iPhone unless they enter into Apple's non-negotiable Developer Program License Agreement (DPLA), which requires them to use public APIs only 'in the manner prescribed by Apple'.[47]

The abovementioned rules not only contractually and technologically ban competing app stores, they also prevent sideloading, i.e., downloading native apps directly from the web. Furthermore, App Store policies and guidelines, prevent cloud gaming services from being available on iOS devices, as they does not allow a single app to provide a catalogue of games.[48]

Finally, rules requiring mobile browsers operating on iOS devices to use Apple's WebKit browser engine,[49] restrict the ability of competing browser vendors to develop competitive features for their browsers. The UK CMA's final report on mobile ecosystems cites two incentives for this: First, protecting their app store revenue from competition from Web Apps, and second, protecting their Google search deal from competition from third-party browsers:

> 'Apple receives significant revenue from Google by setting Google Search as the default search engine on Safari, and therefore benefits financially from high usage of Safari. [...] The WebKit restriction may help to entrench this position by limiting the scope for other browsers on iOS to differentiate themselves from Safari [...] As a result, it is less likely that users will choose other browsers over Safari, which in turn secures Apple's revenues from Google. [...] Apple generates revenue through its App Store, both by charging developers for access to the App Store and by taking a commission for payments made via Apple IAP. Apple therefore benefits from higher usage of native apps on iOS. By requiring all browsers on iOS to use the WebKit browser engine, Apple is able to exert control over the maximum functionality of all browsers on iOS and, as a consequence, hold up the development and use of web apps. This limits the competitive constraint that web apps pose on native apps, which in turn protects and benefits Apple's App Store revenues.'[50]

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[46] Ibid., para. 41.
[47] Ibid., para. 42.
[48] CMA, 'Mobile browsers and cloud gaming market investigation' (Issues Statement) June 2022, para 22, available at: <https://assets.publishing.service.gov.uk/media/63984ce2d3bf7f3f7e762453/Issues_statement_.pdf> (last accessed 31 July 2024).
[49] CMA, 'Mobile Browsers and Cloud Gaming Market Investigation. WP2: The requirement for browsers operating on iOS devices to use Apple's WebKit browser engine', available at: <https://assets.publishing.service.gov.uk/media/667d2f0caec8650b100900c0/WP2_-_The_requirement_for_browsers_operating_on_iOS_devices_to_use_Apple_s_WebKit_browser_engine_1.pdf (last accessed 31 July 2024).
[50] CMA, Final Report into Mobile Ecosystems (n 34) para. 5.69.

In conclusion, through a combination of contractual and other internal governance instruments, Apple has reserved for itself a monopoly in iOS app distribution, a key gateway in the digital economy, that is difficult to contest. From the DMA's point of view, that lack of contestability is problematic. Thus, a significant number of the DMA's obligations specifically target app stores, and in particular the App Store, focusing on the restrictions on app distribution that may harm contestability as well as the the price app stores charge for such distribution that may undermine fairness.

C. App-store related DMA provisions

The first set of obligations targets the *price* charged for app distribution in order to promote fairness in platform to businesses relationships (P2B). This is done through three separate obligations which target the App Store fee indirectly and directly. Starting off with the most indirect provision, the DMA prohibits anti-steering measures: Article 5(4) DMA requires Apple to allow app developers distributing through the App Store to communicate and promote offers in-app to iOS users and engage in contracts with them outside the App Store. In 2021, the Japan Fair Trade Commission considered Apple's anti-steering rule anticompetitive for the specific category of reader apps, which tend to face high marginal costs, but closed its investigation when Apple committed to allow reader app developers to link to their website. The judge in *Epic v Apple* also found the anti-steering rule in breach of California's unfair competition law, because they 'threaten an incipient violation of an antitrust law by preventing informed choice among users of the iOS platform' and issued a US-wide injunction.[51]

A more direct intervention in the App Store fee is found in the DMA's obligation to not require developers and consumers to use the app stores' IAP system.[52] This obligation, too, follows competition law enforcement. The Dutch Competition Authority, ACM, decided that forcing developers of dating apps to use IAP constituted an abuse of dominance, in particular an unfair trading condition.[53]

Finally, the DMA targets App Store fees head-on, with the FRAND platform access obligation enshrined in Article 6(12). The latter provision engages directly with fairness considerations in platform to business users relations. Of course, Apple should be free to charge a fee for the app development and distribution system it has set up. The real question is whether the fee is a reasonable one or an expression of abuse of its complementors.

The second set of obligations targets the *way* in which app distribution is organised. Article 6(4) imposes on gatekeepers an obligation to 'allow and technically enable the installation and effective use of third-party software applications or software application stores using, or interoperating with, its operating system'. Article 6(3) also requires Apple to enable iOS users to easily install and uninstall

[51] *Epic v Apple*, 67 F.4th 946 (9th Cir. 2023) (hereinafter *9th Cir. Epic v. Apple*)
[52] DMA, art 5(7). This obligation also appears implicit in arts 5(4)–(5)
[53] ACM, Case ACM/19/035630, Apple, 24 August 2021 (Summary of Decision) (n 5) above.

app stores, easily change default settings, and allow them to select among, for example, competing app stores through easy-to-use and unbiased choice screens. In addition, users must be able to sideload apps, i.e. download third-party apps/app stores from the web without using the gatekeeper's CPS, i.e., the App Store. Crucially, there is no FRAND obligation for the access of third-party app stores to iOS, which means Apple could charge a significant fee for hosting these stores. Finally, the DMA seeks to encourage web apps by prohibiting gatekeepers from requiring usage of their browser engine, such as the WebKit.[54]

D. App-store related DMA enforcement: Contestability over Fairness?

It is now made clear that opening up iOS app distribution addresses contestability concerns, while regulating App Store fees seeks to promote fairness in P2B relationships. However, the two are intimately related: the entry of competing app stores should not only put pressure on Apple to innovate but also drive down the commission fees charged. But so far both competition law enforcement and DMA enforcement have focused on the ways in which the App store fee is being levied, i.e. the IAP obligation and the anti-steering rules in place,[55] rather than on the fee itself.

An opportunity to do so would have been in the context of the EC's recent investigation of Apple's 'anti-steering' rules for music streaming.[56] The complainant, Spotify, claimed that Apple also infringed Article 102 TFEU by requiring developers to use Apple's IAP mechanism and pay a commission to Apple of 15% to 30%. The Commission intended to pursue this exploitative conduct as well but in its revised statetement of objections it focused only on the anti-steering provisions,[57] and whether the latter were unfair vis-à-vis end consumers, not business users.[58] This was eventually framed as an exploitative and unfair trading conditions case to the extent that (i) the anti-steering provisions were 'unilaterally imposed by Apple', an integrated ecosystem orchestrator, on its complementors in the music streaming app services market, the app store being a multi-sided platform with on one side developers and on the other end-users, (ii) these rules were found 'detrimental to the interests of iOS users of music streaming services' (that is, the consumer side of the platform), as these were obliged to pay because of the anti-steering provisions higher music subscription fees than those on other devices, as they were unable to choose from a range of distribution options, and (iii) they 'were not necessary for the achievement of a legitimate objective or in any event not proportional for that purpose'.[59] Hence, although the abusive conduct took place in the context of the P2B relationship, the Commission focused

[54] DMA, art 5(7) and Recital 43.
[55] See Case AT. 40437, Apple-App Store Practices (n 42) above.
[56] Ibid.
[57] Ibid, para. 827.
[58] Ibid, para. 30.
[59] Ibid., para. 555.

on the anticompetitive effects produced at the P2C relationship.[60] An important concern in the case also was the "quasi-regulatory powers" exercised by Apple "for determining access conditions for developers to users of iOS devices" and which it could modify "at any time"[61], a concern over private regulatory power that has also attracted the CJEU's attention, among others, in the recent *Superleague* judgment, although from a procedural/rule of law perspective.[62]

The DMA's Article 6(12) fills in a significant enforcement gap as it allows the EC to assess and potentially change the fee itslelf. But the EC has refrained to address the fee directly in its DMA enforcement activity. As the non-compliance investigations involving Apple illustrate, it has prioritised contestability over fairness. On 25 March 2024, the Commission decided to open non-compliance investigations involving Apple, since it suspected that Apple's compliance proposal under Article 8 DMA may fall short of effective compliance of its obligations under the DMA.[63] Apple's compliance proposal stipulated that app developers who exclusively distribute through Apple's App Store would continue to benefit from the fees currently in offer. But, app developers who choose to single-home or multi-home in one or more alternative app stores would be subject to a new fee scheme, which included a fee per install, the so-called 'core technology fee', that de facto translates into a minimum fee per user.[64] The proposal was critisised by many app developers,[65] practioners[66] and scholars,[67] as stifling the development of alternative app stores. This is because app developers, including those offering free apps (apps supported by advertising, which currently pay no fee to Apple) would have to pay a fee to reach their iOS users if they chose to multihome. Thus developers of 'popular apps' who may have limited revenues but whose apps are widely downloaded may have no, or limited, incentive to distribute through alternative app stores. This could impede the entry of competing app stores since they are likely to need several popular apps to become credible contestants.

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[60] See, also G Monti, 'Exploitative Abuse – Takeways from the Apple App Store Practices Decision' available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4853304 (last accessed 23rd August 2024).
[61] See Case AT. 40437, Apple-App Store Practices (n 42) above, para. 500.
[62] Case C-333/21, *European Superleague Company*, ECLI:EU:C:2023:1011, paras. 135-138.
[63] See EC, *Commission Opens Non-compliance Investigations Against Alphabet, Apple and Meta Under the Digital Markets Act*, 25 March 2024 <https://ec.europa.eu/commission/presscorner/detail/en/ip_24_1689> (last accessed 23 July 2024).
[64] See <https://www.apple.com/legal/dma/> (last accessed 31 March 2024).
[65] See Spotify, '*A Letter to the European Commission on Apple's Lack of DMA Compliance*', 1 March 2024. <https://newsroom.spotify.com/2024-03-01/a-letter-to-the-european-commission-on-apples-lack-of-dma-compliance/> (last accessed 23 July 2024).
[66] See D Geradin, 'When Apple takes the European Commission for Fools: An Initial Overview of Apple's New Terms and Conditions for iOS App Distribution in the EU' (26 January 2024) *The Platform Law Blog.* <https://theplatformlaw.blog/2024/01/26/when-apple-takes-the-european-commission-for-fools-an-initial-overview-of-apples-new-terms-and-conditions-for-ios-app-distribution-in-the-eu/> (last accessed 23 July 2024).
[67] See J Crémer and others, Apple's Exclusionary App Store Scheme: An Existential Moment for the Digital Markets Act. (VoxEU Column, 2024) <https://cepr.org/voxeu/columns/apples-exclusionary-app-store-scheme-existential-moment-digital-markets-act#:~:text=Key%20Themes-,Apple's%20exclusionary%20app%20store%20scheme%3A%20An%20existential,for%20the%20Digital%20Markets%20Act&text=Article%206(4)%20of%20the,apps%20on%20its%20iOS%20devices> (last accessed 23 July 2024).

The Commission considered that i) Apple's proposals may restrict app developers' ability to freely communicate and promote offers and directly conclude contracts in contravention of Article 5(4) DMA; ii) Apple's design of the web browser choice screen may prevent iOS users to truly exercise its choice of app stores, in contravention of Article 6(3) DMA; and, (iii) Apple's new fee structure may be defeating the purpose of its obligations under Article 6(4) DMA. On 24th June 2024, the European Commission informed Apple of its preliminary view that its App Store rules are in breach of the DMA as they prevent app developers from freely steering consumers to alternative channels for offers and content. In addition, the Commission opened a new non-compliance procedure against Apple over its 'core technology fee', expressing concerns that it falls short of ensuring effective compliance with Apple's obligations under the DMA and in particular Article 6(4):[68]

> 'Whilst Apple can receive a fee for facilitating via the AppStore the initial acquisition of a new customer by developers, the fees charged by Apple go beyond what is strictly necessary for such remuneration. For example, Apple charges developers a fee for every purchase of digital goods or services a user makes within seven days after a link-out from the app'.[69]

The EC did not investigate whether Apple's proposal complies with Article 6(12) DMA. There are two possible explanations for this. The first one is that it does not want to engage in a discussion of what the FRAND concept means within the DMA, given how difficult it is to determine FRAND in the standardisation context. Doing so, would entail the EC assuming the role of a price regulator, something that it is reluctant to do. The second explanation is that the EC focuses only on the contestability goal of the DMA in the hope that fairness is guaranteed in contestable markets.[70] In the case of the app store services, this would mean that if Apple faces credible competition from alternative app stores then competition would force its terms and conditions to be fair, as otherwise, app developers will migrate towards its competitors. However, contestability may be 'infeasible or only very limited'[71] due to demand and technological constraints. Entry and expansion may not occur due to network effects, economies of scale and scope, and/or coordination problems.[72] Therefore, even if practices are found to be in compliance with Articles 5(4), 6(3), and 6(4) DMA (because they do not limit multi-homing) they may still be insufficient to make the provision of app store services in iOS effectively contestable. When this is the case, the Commission may have no alternative but to determine whether the terms and conditions offered in the App Store are FRAND. With these considerations in mind, the next section will explore the various FRAND obligations that permeate several areas of EU Law so as to examine

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[68] See (n 9) above.

[70] Padilla (n 8) above.
[71] See Crémer et al (n 10) above.
[72] Padilla (n 8) above.

whether and to what extent one can derive some principles that could help enforcers determine FRAND platform access.

3. FRAND obligations in EU Law: A Source of Inspiration

The DMA's FRAND provisions come to add to an ever-growing list of EU law obligations to offer access to SEPs, to provide access to non-replicable infrastructure on a fair and reasonable basis, or to inform competition law access remedies (compulsory licensing). It will be argued that Article 6(12) lies at the intersection of three governance regimes: regulation (DMA), private governance (SEPS), and competition law (compulsory licensing). When drawing lessons from these regimes to inform FRAND in the DMA it is important, however, to bear in mind that FRAND obligations can have different interpretations and imply a different approach and calculation method depending on the underlying legal and regulatory context. For instance, where a firm does not have a dominant position or enduring market power, the approach to calculating FRAND is different from the situation whereby FRAND is used to address prolonged and sustained market power. In the former case, the opportunity costs to the firm of providing access on FRAND terms is of paramount importance. Also, the level of detail on what is FRAND varies significantly from context to context, from very high-level principles to detailed methodologies for how prices should be set.

A. SEPS

In the sphere of patent licensing, where the FRAND concept originated, the goal has been to address the market power of the licensors of intellectual property that is essential to telecommunication standards. Fair and reasonable pricing is implemented to preserve investment incentives in the patented technologies, while fostering downstream competition in the implementation of these technologies. The aim is to make SEPs available at a price equivalent to what patents would have been worth in the market prior to the time they were declared essential.[73]

A SEP, like any patent, may generate monopoly rents reflective of the market power of the covered invention. The technologies themselves are typically developed competitively; however once chosen to be part of the standard, and so deemed to be SEPs, they confer market power on those patent holders since every implementer has to get a licence to them. This situation could potentially give the patent holders monopoly power and the ability to charge excessive royalties, particularly once the investments of the implementers are sunk, i.e., what is known as the 'hold-up' problem. A SEP holder may 'hold up' any prospective practitioner of the standard, i.e. it can hold implementers to ransom by reason of the incorporation of the invention into the standard by declining to grant them a licence at all

[73] See I Nicolic, *Licensing Standard Essential Patents. FRAND and the Internet of Things* (Hart 2021).

or only granting one on unfair, unreasonable, or discriminatory terms. The amount of royalties the SEP holder may then demand will reflect more than the simple value of the innovation covered by the patent.

To alleviate these concerns, major Standard Setting Organisations (SSO)[74] require SEP holders to make a commitment that they will licence their patents on FRAND terms. If a royalty is above FRAND, it is less likely that the innovation will be widely implemented and that as many consumers as possible will benefit from it.

However, the FRAND commitment does not imply that the royalties should be as low as possible. Patent holders typically invest large sums of money in research and development activities. These investments are both risky, in that they do not necessarily lead to implementable technologies, and run the risk of becoming sunk, in that once invested they cannot be recovered. If royalties are too low, there is a risk that patent holders will not cover the costs of undertaking these investments. This may lead to the unfortunate situation where patent holders may not undertake the investments in the first place or choose to opt for proprietary technologies rather than including them in standards. Therefore, the FRAND commitment strives to strike a balance between ensuring access to patented technologies for implementers and maintaining patent holders' incentives to invest in researching and developing standards.

Most economists consider that, as a matter of theory, the royalty should be equal to, or reasonably related, to the economic value of the patent, that is the value of the underlying technology to society, rather than the market power conferred by standardisation. This is the price that the patent would command, but for the licensor's market power. To arrive at a 'but for' FRAND rate there are two main approaches to estimating FRAND rates. The first approach is based on comparable licence agreements[75] and the second approach is based on the total price or total value of all patents in the standard (top-down approach).[76] Both these approaches estimate FRAND based on, either the prices of licences for comparable patents, or the value generated by the patented technologies. They do not attempt to link the FRAND price to the costs of innovations. This was attempted in the past in the form of a 'bottom-up' approach to determining the royalty by benchmarking it to the costs of implementing reasonable alternatives to the SEPs.[77] But it proved difficult to determine what the alternatives would be and whether they could provide all the functionality needed and thus was abandoned.

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[74] M A Lemley, 'Intellectual Property Rights and Standards – Settings Organisations' (2002) 90 California Law Review 1889. For instance, the International Organization for Standardization (ISO) is the world's largest international standard development organization. Other independent standard setting organizations like the Institute of Electrical and Electronics Engineering (IEEE) and the Internet Engineering Task Force (IETF) publish standards and aim to foster 'technological innovation and excellence for the benefit of humanity'.

[75] Some factors that may be considered when assessing comparability include: a) the technological complexities of the standards, the SEPs portfolios, the licence products, the royalty structures etc.

[76] Report of the SEPs Expert Group to the European Commission, (23 January 2021) pp. 104-111, available at: https://ec.europa.eu/docsroom/documents/45217 (last accessed 23 July 2024).

[77] *Innovatio IP Ventures, LLC Patent Litigation*, MDL Docket No. 2303 Case No. 11 C 9308, p 73.

The various approaches discussed above point to the conclusion that there are no generally agreed-upon tests to determine whether a particular licence satisfies a FRAND commitment nor a consensus as to its legal effects. As a result of such broad uncertainty on the economic meaning of the acronym and its legal effects,[78] there has been a wave of litigation worldwide over the last couple of decades.[79] Some SSOs (and courts) have adopted a rule-based approach providing a definition of fair/reasonable rate and developing methods for the valuation of FRAND royalties.[80] Courts in the USA, have followed a mostly case-by case, standards-based approach, whereby they have interpreted FRAND as an abstract standard of reasonableness and proceeded on that basis to set royalty levels.[81] This complex exercise has mostly taken place in the context of a number of damage claims linked to a breach of the FRAND commitment by the SEP holder. Some courts, however, have added a test to the FRAND standard, with the aim being to identify the source of economic value for the patented technology. In other words, to distinguish the value of technology itself – which deserves to be compensated as part of FRAND royalties – from the value stemming from standardisation – which does not. Other courts have applied tests based on comparable licences.

In the EU, the ECJ in *Huawei*[82] endorsed a procedural approach, which sits between a rules-based and a standard-based approach.[83] Instead of defining the meaning of FRAND and quantifying what a 'fair' royalty rate is, the Court (and a number of other courts in Europe) instead assessed whether and to what extent the SEP holder and the implementer have behaved 'fairly' during the licensing negotiations. The ECJ considered the request for a court injunction by the SEP holder to enforce its IP rights abusive, unless the request was anticipated by a number of negotiation steps: i) sending of a prior and accurate notice of infringement to an unlicensed implementer; ii) offering a 'written offer for a licence on FRAND terms' which specifies royalty rates and calculation; and, iii) leaving the unlicensed implementer sufficient time to react. In its landmark ruling, however, the ECJ did not clarify the circumstances under which a royalty rate could be considered 'fair'. SEP owners need to show that their

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[78] See e.g. G Sidak, 'The meaning of FRAND, Part I: Royalties' (2013) 9(4) JCLE 931; G Sidak, The Meaning of FRAND, Part II: Injunctions (2015) 11(1) JCLE 201; A Laynne-Farra, J A Padilla, R Schmalensee, 'Pricing Patents for Licensing in Standard-Setting Organizations: Making Sense of FRAND Commitments' (2007) 74(3) ALJ 671; See C Shapiro and M Lemley, 'The Role of Antitrust in Preventing Patent Holdup' (2020) U. Pa. L. Rev. 2020, 2039, 2044, 2046. D Geradin and M Rato, 'Can Standard Setting Lead to Exploitative Abuse? A Dissonant View on Patent Hold-Up, Royalty-Stacking and the Meaning of FRAND' (2007) 3 ECJ 101.

[79] D Geradin, 'SEP Licensing After two Decades of Legal Wrangling: Some Issues Solved, Many Still to Address' (2020) TILEC Discussion Paper No. DP2020-040, available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3547891 (last accessed 23 July 2024); M Fröhlich, 'The smartphone patent wars saga: availability of injunctive relief for standard essential patents' (2014) 9(2) Journal of Intellectual Property Law & Practice 156.

[80] Which states that royalty represents one fourth of the profits made by the product that embodies the patented technology.

[81] See *Microsoft Corp. v. Motorol*a, Inc., 795 F.3d 1024 (9th Cir. 2015), decided in 2015 by the US Court of Appeals for the Ninth Circuit, represents the first case in which a US Federal Court was called to assess what a 'reasonable' royalty rate in an SEP-related dispute is.

[82] See (n 6).

[83] N Petit and A Leonard, 'Frand Royalties: *Rules v Standards*?' (28 September 2022) available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4226927 (last accessed 23 July 2024).

offer is FRAND and if they fail to do so, they will lose on FRAND, meaning that no injunction will be issued. Typically, SEP owners will disclose comparable licence agreements with similarly situated companies, top-down analyses, third-party essentiality studies and total aggregate royalties, to name only a few. Implementers, on the other hand, will need to engage in negotiating the FRAND terms of the licence to be concluded and provide a FRAND counteroffer, as the case may be, in due time and, if they apply delaying tactics, they will get injuncted.

Similarly, in its 2017 Communication on SEPs, the European Commission provided limited guidance concerning the meaning of FRAND and how this principle should be applied in practice.[84] However recently, to reduce transaction costs in SEPs licensing and litigation, the Commission has put forward a proposal for a SEP Regulation, which was recently voted in the European Parliament, where it seems to opt for a different, more centralised and heavily regulated approach to SEP licensing.[85]

In the UK, SEPS litigation has been marked by the *Unwired Planet* saga and the contrasting rulings of the UK High Court and the Court of Appeal. The former ruled that only a 'single' royalty rate may be considered compatible with the FRAND requirement. According to the High Court, '…the concept that there exists only a single set of FRAND terms for a given situation is workable. It will promote certainty and will enhance the normative aspect of FRAND'.[86] By contrast, the Court of Appeal of England and Wales ruled that there is no 'single' royalty rate that can be considered FRAND; on the contrary, a 'range' of different royalty rates may be considered compatible with the FRAND commitment by the SEP holder.[87] Finally, in its recent ruling concluding the legal saga, the UK Supreme Court did not specifically deal with the issue of FRAND as 'single' v. 'range' of royalty rates.[88] However, by rejecting the 'hard-edge' interpretation of the non-discrimination obligation,[89] the Supreme Court indirectly upheld the interpretation of FRAND as a 'range'.[90] According to the 'hard-edge' interpretation of the non-discrimination principle, the SEP holder would be required to grant to every licensee the same royalty rate. Therefore, a licensee could ask the SEP holder to benefit from the same discounted rate that the patent holder had previously granted to another licensee (i.e. most-favoured license approach).

[84] In the Communication, the EU Commission pointed out that SEPs' values should be evaluated on the basis of the added value of the patented technology; the evaluation should incentivise the SEP holder to invest in research and innovation; parties should agree on a reasonable aggregated royalty rate covering complementary SEPs, in order to avoid royalty stacking.
[85] Proposal for a Regulation on standard essential patents and amending Regulation (EU)2017/1001 (COM(2023) 232 final of 27 April 2023). The Proposal has attracted much criticism from the industry, but it was voted by the European Parliament on 28th February 2024.
[86] [2017] EWHC 711 (Pat) para. 156.
[87] *Unwired Planet v. Huawei*, 23 October 2018. [2018] EWCA Civ 2344, para. 121.
[88] *Unwired Planet International Ltd and another (Respondents) v. Huawei Technologies (UK) Co Ltd and another (Appellants*) (n 7) above.
[89] Ibid., 105-127.
[90] Ibid.

German courts have also followed the same approach.[91] In particular, in its recent ruling in *Sisvel v. Haier, the Bundesgerichtshof* the German Federal Court of Justice ruled that the SEP holder was not required to grant a 'uniform rate' to all potential licensees in order to comply with the FRAND commitment, thus indirectly accepting that FRAND represents a 'range', rather than a 'single' royalty rate.[92] Within the procedural framework of *Huawei*, the SEP holder and different licensees may agree on different royalty rates and conditions considered FRAND.

While, however, FRAND is a range, a royalty rate 'beyond the outer boundary of the range' should be considered 'unfair', and thus incompatible with the FRAND commitment. In addition, a SEP holder that demands royalties that exceed FRAND levels may also violate Art. 102(a) TFEU.[93] In other words, the legal obligation binding a SEP holder to license the SEP on FRAND terms coexists with public law obligations rooted in competition law.

B. EU Competition Law: FRAND-like access remedies

In EU Competition law, we come across FRAND-like access remedies in compulsory licensing cases. Unlike FRAND licenses for SEPS, which represent a voluntary commitment to negotiate fair, reasonable, and non-discriminatory terms, compulsory licences force the licensor to enter into a license agreement. Thus, they can affect market exclusivity and the market price of the licensed product. Furthermore, while the FRAND license in SEPs emphasises providing the licensee with reasonable terms, e.g., by preventing a standard patent holder from extracting unreasonably high royalty rates, compulsory licenses emphasise the public benefit that flows from enabling access to an otherwise inaccessible invention.[94] Therefore, the term 'fair and reasonable' takes on a slightly different meaning depending on the type of license involved. While a product's economic value is an important consideration, the public's need for the product and failure to obtain a license under reasonable commercial terms remain important considerations in compulsory licensing.

Starting off with *Magill*,[95] the case related to access to weekly TV listing guides 'on a non-discriminatory basis'.[96] The European Court of Justice (ECJ) upheld a Commission decision imposing a copyright licensing obligation on a group of Irish broadcasters. *Magill* made clear that under European

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[91] The District Court (LG) and the Higher Regional Court (OLG) of Düsseldorf have ruled that the concept of FRAND refers to a range of acceptable royalty rates; as a rule, there is no single FRAND-compliant royalty rate. See also G Colangelo and G Scaramuzzino, 'Unwired Planet Act 2: the Return of the FRAND Range' (2019) 40(7) European Competition Law Review 306.

[92] Bundesgerichtshof, *Sisvel v. Haier*, ruled on 5.5.2020, ECLI: DE: BGH: 2020: 050520UKZR36.17.0 para. 81.

[93] M Botta, 'Unfair Pricing and Standard Essential Patents' (2020) EUI Working Paper 2020/60.

[94] For a discussion see J Atik, 'The FRAND Ceremony and the Engagement of Article 102 TFEU in the Licensing of Standard Essential Patents' (2019) 42 (3) Fordham International Law Journal 949.

[95] Joined Cases C-241/91 P & C-242/91 P, *Radio Telefis Eireann (RTE) and Indep. Television Publ'ns Ltd (ITP) v Comm'n of the European Communities*, ECLI:EU:C:1995:98.

[96] Commission Decision of 21 December 1988 89/205/EEC, 1988 OJ (L 78) para. 27.

competition law, in special circumstances, an IP holder has a duty to license and that licence must be on a non-discriminatory basis. It found three television broadcasters operating in Ireland to have violated what was at the time Article 86 in refusing to license IP protecting material that was 'indispensable' to the development of a 'new product'. *IMS Health*[97] involved the refusal by IMS to licence its copyrighted structure to NDC. The Court confirmed the case law as embodied in the seminal *Magill* ruling, in that a refusal to licence would only amount to an abuse in 'exceptional circumstances.'

Finally, *Microsoft*,[98] related to Microsoft's obligations to provide 'interoperability information' (which was covered, in part, by copyright) for its workgroup server operating systems on 'reasonable and non-discriminatory terms'[99] to its rivals in the Windows work group server market. A non-consensual, FRAND-like obligation was imposed on Microsoft as a remedy for its Art. 102 TFEU violation. The obligation stemmed from the Commission's decision that Microsoft had abused its dominant position for workgroup server operating systems by refusing to supply such information. Further proceedings examined whether Microsoft's licenses properly implemented the Commission's decision and whether the royalties charged by Microsoft were excessive. The Commission held that Microsoft breached its obligation to offer 'reasonable and non-discriminatory terms'. It held that for the relevant remuneration to be 'reasonable' it had to represent 'fair compensation for the value of the technology that is transferred by Microsoft…beyond the mere ability to interoperate, namely excluding the 'strategic value' stemming from Microsoft's market power'.[100] Microsoft thus had to evaluate whether its terms were aligned with the value of comparable technologies, excluding, however, its market power. This led to a further challenge before the General Court.[101]

Elsewhere in competition law enforcement, FRAND components, namely 'fairness' and 'reasonableness' have been indirectly interrogated in the context of exploitative abuses under Article 102(a) TFEU. Indeed, the exploitative abuse of excessive pricing is based on the notion of 'unfair' terms and conditions. In *Aspen*,[102] for instance, the Commission considered that the price of each of the drugs

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[97] Commission Decision 2002/165/EC of 3 July 2001 (NDC Health/IMS Health: Interim Measures) [2002] OJ L59/18, withdrawn by Commission Decision 2003/741/EC of 13 August 2003 (NDC Health/IMS Health: Interim Measures) [2003] OJ L268/69; Case C- 418/01, *IMS Health GmbH & Co. OHG v NDC Health GmbH & Co. KG* [2004] ECR I- 5039.

[98] Case T-201/04, *Microsoft Corp. v Comm'n of the European Communities,* 2007 E.C.R II-1491. See the discussion of the Commission remedies, including the compulsory license of interoperability information in N Economides and I Lianos, 'The quest for appropriate remedies in the EC Microsoft cases: a Comparative Appraisal', in Luca Rubini (ed.), *Microsoft on Trial: Legal and Economic Analysis of a Transatlantic Antitrust Case (*Edward Elgar 2010) ch. 13.

[99] Case COMP/C-3/37.792 — Microsoft, Commission Decision of 27 February 2008 fixing the definitive amount of the periodic penalty payment imposed on Microsoft Corporation by Decision C (2005) 4420 final (2009) C 166/20.

[100] Ibid.

[101] Case T-167/08, *Microsoft Corp. v European Commission*, ECLI:EU:T:2012:323

[102] Case AT 40394-Aspen, Commission Decision of 10.2.2021 relating to a proceeding under Article 102 of the Treaty on the Functioning of the European Union (TFEU) and Article 54 of the EEA Agreement, C(2021) 724 Final.

was unfair in itself due to the fact that Aspen did not offer any material improvement of the products or any justifications to reflect commercial risk-taking activity, innovation, or investment;[103] i.e., there was no reasonable explanation to justify such price increases.

C. Communications Sector

In the communications sector, FRAND pricing has been used to address both market power and to achieve the multiplicity of goals permeating the regime, i.e., universal service, consumer protection, privacy, media plurality, to name but a few. We come across FRAND provisions in both telecoms access regulation, where significant market power had been found and in other forms of wholesale access where market power was not the main rationale for regulatory intervention.[104]

Regarding telecoms access regulation, historically regulators relied on a cost-based approach for wholesale access to older fixed telecom networks. However, this cost-based approach did not effectively encourage investment in new, advanced fibre-optic networks. To foster more competition in building new networks it was crucial to reduce entry barriers and set wholesale access prices at a level that would not discourage investment. This required a lighter regulatory approach that relied on use of FRAND terms. The Body for European Regulators for Electronic Communications (BEREC) has specified that FRAND terms should 'represent a balance of interests between the company which owns/holds an asset/product (e.g. the operator enjoying Significant Market Power-SMP) and those companies that need to access or use this asset/product in the context of access to telecommunications infrastructure'.[105] Thus FRAND has two main goals: to foster competition in network construction and investment and to provide a safeguard to protect wholesale customers and ultimately consumers from high prices if competition alone was insufficient. In the UK, we observe both a principles-based

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[103] Ibid., para. 163.

[104] See e.g., the obligation of providers of number-based interpersonal communications services to provide end-to-end connectivity on 'reasonable terms and conditions Directive (EU) 2018/1972, establishing the European Electronic Communications Code, Recitals 18, 144-145. And the Regulation of conditional access systems, known as Technical Platform Services ('TPS') in the UK, a conditional access ('CA') service enables a broadcaster to restrict access to content that it has made available on a digital platform only to those customers that have been authorised to access it; critical in particular for copyrighted material generally and paid for content specifically. TPS services also include for example listing in the Electronic Programme Guide (EPG) and interactive tv services amongst others. For an analysis see C Kalmus and K Prasad, 'What are Fair and Reasonable Prices? Making a Flexible Concept Tractable' (6 June 2024) available at https://www.compasslexecon.com/insights/publications/what-are-fair-and-reasonable-prices-making-a-flexible-concept-tractable (last accessed 23 July 2024).

[105] BEREC, 'Guidelines to foster the Consistent Application of the Conditions and criteria for assessing co-investments in new very high capacity networks' (11 December 2020) available at: https://www.berec.europa.eu/sites/default/files/files/document_register_store/2020/12/BoR_(20)_232_BEREC_Guidelines_Art76_(Clean)_(Publication).pdf p. 12 (last accessed 23 July 2024).

approach[106] and instances where the regulator Ofcom (Office of Communications) has laid down more detailed methodologies.[107]

D. Remarks

Having provided an overview of the various FRAND obligations permeating EU law, we can now better appreciate that Article 6(12) lies at the intersection of regulation (DMA), private governance (SEPS), and competition law (compulsory licensing) regimes and is inspired from each and one of these regimes.

Turning first to SEPS, similar to the App Store, a SEP 'locks in' all users of the standard. The goal, therefore, is to make the essential patents available at a price equivalent to what patents would have been worth in the market prior to the time they were declared essential. Licensing royalties should reflect the economic value of the technological standard, which is in turn informed by the economic value of the technologies incorporated in it. SEP holders are not remunerated for the 'hold-up' conferred upon them by the standardisation process. In the case of application stores much of the value attributed to them is generated by network effects. Applying this in the DMA context, begs the question whether the gatekeeper should be remunerated for network effects.

Drawing on competition law, the closest parallel is *Microsoft.* The Commission held that for the relevant remuneration to be 'reasonable' it had to represent 'fair compensation for the value of the technology that is transferred by Microsoft…beyond the mere ability to interoperate, namely excluding the 'strategic value' stemming from Microsoft's market power'. Applying this in the DMA context, begs the question whether one should exclude the value deriving from network effects when contemplating the FRAND platform access price.

Finally, we also observe that the DMA has opted for a procedural approach endorsed by the CJEU in *Huawei*[108] rather than a substantive strategy in determining FRAND platform access. Gatekeepers should also provide access to a dispute settlement mechanism that is 'easily accessible, impartial, independent and free of charge for the business user'. With these preliminary observations in mind, we can now turn to explore how FRAND in the DMA should be understood and operationalised.

4. Operationalising Article 6(12): Towards a Normative Framework

[106] See e.g. OFCOM, Narrowband Market Review (30 November 2017) available at: https://www.ofcom.org.uk/__data/assets/pdf_file/0020/108353/final-statement-narrowband-market-review.pdf (last accessed 23 July 2024).
[107] 080 and 116 number ranges, Statement on Dispute Resolution Guidance (12 December 2013) https://www.ofcom.org.uk/__data/assets/pdf_file/0034/68686/final_080-116_guidance.pdf (last accessed 23 July 2024).
[108] See (n 6).

Article 6(12) imposes two core rules on general conditions of access, namely that they must be 'fair and reasonable' and 'non-discriminatory'. Prices are considered unfair if they 'lead to an imbalance of rights' or 'confer an advantage' which is 'disproportionate to the service provided by the gatekeeper'. However, beyond suggesting that the EC could consider the service provided by the gatekeeper, including whether the share of total value of the service taken by the gatekeeper is 'disproportionate', there is currently little indication as to how this will be assessed. Recital 62 provides several benchmarks that could be used to ascertain what the gatekeeper would charge for the service if it were not a gatekeeper or whether the share of value taken by the gatekeeper is FRAND. As we shall see below these have been influenced by SEPS benchmarking, the competition law framework for assessing exploitative abuses under Article 102 TFEU, and telecoms regulation.

A. Assessing Fairness

Recital 62 provides several benchmarks that could be used to ascertain what the gatekeeper would charge for the service if it were not a gatekeeper or whether the share of value taken by the gatekeeper is FRAND. These include: i) the terms and conditions imposed for the same or similar services by the other providers; ii) prices charged or conditions imposed by the provider for different related or similar services or to different types of end users; iii) prices charged or conditions imposed by the provider for the same service in different geographical regions; iv) prices charged or conditions imposed by the provider for the same service the gatekeeper provides to itself.

i) SEPS-benchmarking

If one follows the SEPS-benchmarking approach, the key issues that must be determined are the same as in SEPS, that is the dimensions of comparability or the characteristics of the benchmark that make it 'similarly situated' to the case at hand. Factors that may be considered when assessing comparatibility include: a) the value of the CPS; b) the use of the CPS; c) the nature of the business user; d) the business model of the gatekeeper; and, e) other terms and conditions such as alternative forms of compensation.

However, the benchmarks will only be effective if they are sufficiently comparable to the gatekeepers' charges. The difficulty with the suggested method is that they aren't many good comparables. For example, competing app stores are not gatekeepers themselves and therefore they are not similarly situated. Additionally, new entrants have low prices because they did not face the same risks as the gatekeepers when establishing their ecosystems. Leaving the lack of credible comparables aside, another issue that complicates the implementation of FRAND platform access is that gatekeepers typically offer bundled services to business users, which include access to their app store together with ancillary services such as guidance and support and tools to ensure safety together with providing

access. Bundling access with said services may be valuable to business users, but not very helpful in demonstrating compliance of the access fee with the provisions of Article 6(12).

ii) Excessive pricing

The benchmarks have also been inspired by the analytical framework for assessing exploitative abuses under Article 102 (a) TFEU, whereby prices may be deemed to be excessive if they are high when compared with costs, and/or when compared across competitors and over time. For example, in *United Brands*, the Commission relied on the price differences between EU Member States as evidence of abuse: United Brands sold bananas in Ireland at a wholesale price that was substantially lower than the wholesale prices in other continental European countries, though the transport costs to Ireland were supposed to be higher than in the rest of Europe.[109] The CJEU introduced a two-tier test to explain when the price charged by the dominant firm is 'excessive', in comparison to the economic value of the product, and is thus 'unfair'. According to the Court, the price charged by a dominant firm is in breach of Art. 102(a) when: i) it is 'excessive' in comparison to the 'economic value' of the product and, ii) 'unfair' either 'in itself' or 'when compared to competing products'.[110] The first part of the test relies on the so-called 'cost plus' method, whereby the competition agency should compare the revenues and the costs of the dominant firm, taking in consideration a reasonable profit margin. Over the decades, competition agencies have developed rather sophisticated methods to assess the costs faced by the dominant firm in producing the product that is the subject of the alleged abuse.[111] In the context of the *United Brands* test, the authority should assess a 'reasonable' rate of profits (i.e., the 'plus' aspect of the test).[112] In assessing the reasonable rate of return, the competition agencies have often relied on the average profits rate of the competitors to the dominant firm as an indication of the reasonable profits that the dominant firm might expect in a certain industry.

However, applying the test in the context of digital markets presents many challenges. Chief among these is the difficulty of coming up with a meaningful definition of cost for products that are part of a wider ecosystem and whose value stems primarily from intangible assets (e.g. brand, research, human capital). Even once the relevant cost base has been established for a gatekeeper, the EC would need to come to a view on what is a reasonable margin to be allowed on top of the cost base to compensate investors for the risks they take. This is especially important in digital markets, which are characterised by high levels of innovation and R&D, and where high returns from successful

[109] Commission Decision of 17 December, 1975, relating to a procedure under Art. 86 of the EEC Treaty (IV / 26699 – Chiquita). OJ L-95/1, 09/04/1976
[110] Case 27/76, *United Brands and United Brands Continental v* Commission, EU:C:1978:22, para. 252 (United Brands).
[111] See e.g., UK Competition Appeal Tribunal, *Albion Water Limited v. Water Services Regulation Authority and Dwr Cymru Cfyngedig*. Ruled on 7.11.2008. Case number 1046/2/4/04.
[112] *United Brands* (n 110) para. 251.

investments are necessary to offset losses on unprofitable ventures. Regulators will need to properly account for this trade-off when assessing a fair return to ensure future investment. In the US, the judge in *Epic Games v Apple* focused on profit margins: he found an expert's estimate putting the App Store's operating margin at 75% credible, noting that such margins are 'extraordinarily high' and 'strongly show market power'.[113] The CMA came to similar conclusions and also stressed the fact that App Store fees have barely gone down over the years, even though one would expect them do so in the face of competition.[114] In addition to gross and operating profit margins, the CMA also analysed the App Store's return on capital employed (ROCE) as a measure of profitability.

Even if the Commission were to find that the fees charged for app stores were above some reasonable measure of cost, it does not automatically follow that prices are 'unfair' and/or 'unreasonable.' According to *United Brands*, prices are unfair if they bear 'no reasonable relation to the economic value' of the product.[115] However, it remains unclear whether, and to what extent, a competition agency should also take into consideration the expected value of the product for its consumers in assessing the 'plus part' of the test. Both in *Scandlines*[116] and in *Attheraces*,[117] the complaints were rejected, since the product concerned had a 'high value' for the consumers, which justified a 'higher' price in comparison to its overall costs of production. The assessment of the economic value of the product, in the context of the *United Brands* test, was an issue in which the CAT and the Court of Appeal expressed different views in their recent rulings in *Flynn/Pfizer*. Contrary to the CAT, the Court of Appeal ruled that the competition agency is not required to estimate the economic value of the product in the context of the *United Brands* test. The assessment of the economic value of the product is '…part of the overall descriptor of the abuse', rather than a separate step in the *United Brands* test.[118] Finally, the CJEU has never identified a minimum threshold at which to define when the cost/price difference is indeed 'excessive' under the first limb of the *United Brands* test. However, the fact that the difference between price and costs is excessive is insufficient to justify a breach of Art. 102(a): the price charged by the dominant firm has also to be either 'unfair in itself', or 'unfair when compared to competing products', – i.e., the second limb of *United Brands* test.[119]

iii) Telecoms-inspired benchmarks

[113] *Epic Games, Inc. v. Apple, Inc.* (n 36) 41–43 and 93–94.
[114] CMA, Final Report into Mobile Ecosystems (n 34) Appendix C.
[115] *United Brands* (n 110) para. 250.
[116] Commission decision of 23 July, 2004, rejecting the claim in the case S*candlines Sverige AB v. Port of Helsingborg* (COMP/A.36.568/D3).
[117] *Attheraces Limited v. The British Horseracing Board Limited* [2007] EWCA Civ. 38.
[118] *CMA v Flynn/Pfizer* [2020] EWCA Civ 339, para. 172.
[119] *United Brands* (n 110) para. 250.

One of the benchmarks refers to 'the prices charged or conditions imposed by the provider of the software application store for the same service the gatekeeper provides to itself.' It seems that the legislator had in mind a 'retail minus' requirement similar to that used in telecoms regulation. However digital platforms present a high ratio of common costs to fixed and variable costs. Furthermore, in many instances, the gatekeeper does not directly charge end users for the service (other than through the use of their data), generating revenues solely from business users. Consequently, there is a value addition from both sides of the transaction, that needs to be considered. This requires an appreciation of the value provided by business users, in particular the extent to which gatekeepers benefit from the presence of business users and what payment, if any, may be appropriate from the gatekeeper to the business user.[120] As section 2 illustrated through the lenses of ecosystems theory, both app stores and app developers, together, play an important role in generating value for consumers. In this context, FRAND could be framed as a question of whether each side is getting a fair share of the pie. This would entail an assessment of the mutual value each side of the market transaction gets from it and the value it receives.

B. Non-discrimination

The DMA provides less insight into the benchmark for 'discrimination' stipulating that general conditions of access are also 'unfair' if they 'lead to a disadvantage for business users in providing the same or similar services as the gatekeeper'.[121] In relation to app stores, the DMA states that gatekeepers should not be permitted to 'impose general conditions … that would be unfair or lead to unjustified differentiation'. Of course, the most vexing issue is the fee levied on app developers who sell digital goods and services. As Geradin and Katsifis have argued, the distinctions is often applied in an arbitrary manner, where, for example, not all apps providing quasi-identical matchmaking services having to pay the commission.[122] Apps therefore selling digital content will pay the 30% commission and apps that sell physical goods and services do not pay any commission using the same app store services, except for payment processing which Apple and Google considered worth a fee of 3-4%. The price difference therefore between apps selling digital content and those selling physical goods and services is very difficult to justify.

Another question left open in the DMA is whether Article 6(12) imposes an absolute equal treatment obligation or whether it prohibits discrimination capable of resulting in anticompetitive foreclosure, in line with competition law case law. Competition law can shed some light on this issue. Competition authorities and courts have addressed pure second line discrimination in *MEO*,[123] whereas price and non-price-based discrimination in favour of the dominant firm's own services in the case law

[120] On this point see Kalmus and Prasad (n 104) above.
[121] See (n 2).
[122] See (n 5).
[123] C-525/16, *Meo - Serviços de Comunicações e Multimédia*, ECLI:EU:C:2018:270.

concerning margin squeeze[124] and self-preferencing.[125] However, as the preceding discussion on FRAND as a 'range' illustrated, most of the time the concepts of non-discrimination, reasonableness and fairness relate to one another. In competition law, non-discrimination forms part of abuse of dominance. As it relates to prices it can be summarised as follows. First, the underlying principle is that comparable situations must not be treated differently and different situations must not be treated alike unless such treatment is objectively justified.[126] Second, Article 102(c) TFEU prohibits 'applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage'. Dissimilar conditions will only be unlawful where it is shown that there are (a) equivalent/comparable transactions; (b) resulting in an actual or potential distortion of competition; and (c) absence of objective justification. Third, transactions are comparable if (a) they are concluded with purchasers who compete with one another, or who produce the same or similar goods, or who carry out similar functions in distribution, (b) they involve the same or similar products; and, (c) in addition their other relevant commercial features do not essentially differ.

Non-discrimination does not mean that businesses have to charge all customers the same price for the goods and services. As Robert O'Donoghue and Jorge Padilla note, 'the application of Article 102(c) to condemn different prices or terms has been exceedingly rare. '(D)ifferent prices and conditions are ubiquitous in real-world markets, which means that the practical scope of a strict non-discrimination rule would be enormous. This phenomenon has increased significantly in an era of increasing digitalisation where producers' marginal costs of supply are typically low and so allow greater scope for differential pricing'.[127] Competition law does not seek to prohibit different prices being charged to different customers. Only terms which are sufficiently dissimilar to distort competition are prohibited.

The DMA's recitals draw a distinction between 'discrimination' and 'disadvantage': stipulating that terms are 'unfair' where they 'lead to a disadvantage' vis-à-vis the gatekeeper's same or similar services'.[128] This is consistent with the notion of non-discrimination for FRAND in the context of SEPS where, the UK Supreme Court has held that non-discrimination is not 'hard-edged' but 'gives colour to the whole and provides significant guidance as to its meaning. … It indicates that the terms and conditions on offer should be such as are generally available as a fair market price for any market

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[124] See e.g., Case C-280/08 P, *Deutsche Telekom v Commission*, EU:C:2010:603 (*Deutsche Telekom*); C-52/09, *Konkurrensverket v. TeliaSonera Sverige*, EU: C:2011:83 (*TeliaSonera*); Case T-336/07, *Telefónica and Telefónica de España v Commission*, EU:T:2012:172; Case C-165/19 P, *Slovak Telekom v Commission*, EU:C:2021:239 (*Slovak Telekom*).

[125] T-612/17 - *Google and Alphabet v Commission (Google Shopping)*, ECLI:EU:T:2021:763.

[126] C-313/04, *Franz Egenberger*, EU:C:2006:454, para. 33.

[127] R O'Donoghue and J Padilla, *The Law and Economics of Article 102 TFEU* (3rd edn, Hart 2020), Section 15.1

[128] See (n 3).

participant …’.[129] One may, therefore, conclude that the DMA does not prevent a gatekeeper offering third parties different conditions, provided these do not discriminate against business users. This represents a pragmatic approach, in the sense that it is sensitive to the fact that certain categories of business users may require tailored general conditions. This is also consistent with the approach under Article 102 (a) TFEU, which talks about ‘equivalent transactions’ and FRAND in the SEPs context, where the focus is on ‘similarly situated’ licences.

Finally, while it is clear that FRAND platform access seeks to address any disadvantage for business users providing ‘the same or similar services to the gatekeeper’ there is no reference to discrimination between business users. The question, therefore, that arises is whether FRAND platform access should address discrimination between business users or not (pure second line discrimination). FRAND platform access is likely to address pure second line discrimination, as the ultimate purpose of the provision would be defeated if second line discrimination is excluded from the FRAND platform access obligation.

C. A principles-based approach to FRAND

The foregoing analysis first offered first a thorough consideration of how the ‘fairness’ objective could be operationalised. In doing so, it drew on the comparables approach used in SEPS valuation and the analysis of exploitative abuses under Article 102 TFEU and highlighed their respective limits in informing Article 6(12) DMA. Given the practical and conceptual difficulties with these approaches, the article argues is best to consider a principles-based approach. Building on SEPS as a source of inspiration, a first question that needs to be addressed is whether the gatekeeper should be remunerated for network effects. However, unlike the techonolgy embodied in SEPS, network effects are the property of the market. Remunerating, therefore, gatekeepers for network effects would not be compatible with the goals of the DMA. Economists could contibute to the resolution of this question with a simulation model that could help enforcers determine the price say Apple would charge if on the day iOS was launched it faced competition from different app stores. Can one switch off network effects? And if so, would the commission still be set at 30%? The sceptics would argue that such an approach would undermine contestability since it is precisely the monetisation of those network effects which increases the incentive to invest in order to ‘win’ the market. If platforms are not allowed to monetise the network effects this may reduce the incentives to enter and thus the contestability of the market. However, since the FRAND obligation targets only gatekeepers such effects are less likely to materialise.

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[129] *Unwired Planet International Ltd and another (Respondents) v Huawei Technologies (UK) Co Ltd and another (Appellants*) (n 7) above.

Another avenue would be to frame FRAND as a question of whether each side is getting a fair share of the pie. This would entail an assessment of the mutual value each side of the market transaction gets from it and the value it receives. In assessing the mutual value, one could draw inspiration form the UK Code of Conduct for platforms and content providers. In 2022, the CMA and Ofcom published advice to government on what conduct regulations could look like for relations between digital platforms and news publishers.[130] The advice indicated that content providers should be entitled to 'fair and reasonable compensation' for the use of their content by digital platforms that have been designated with Strategic Market Status (hereinafter 'SMS').[131] This would entail that 'fair and reasonable prices' involve the platforms paying publishers for hosting their content, rather than publishers paying platforms for access. To determine whether terms are 'fair and reasonable' the CMA's advice suggests that the joint value created by hosting news content on platforms should be estimated with content providers receiving a fair share of this joint value for use of their content by the SMS firm. The CMA adopted a 'broad view' of the value created, including benefits from increased data on end users as well as the direct benefits from advertising placed around the news content. When assessing the fair share to content providers, the advice stated that 'a 'fair share' would be one which reflected the split that would be likely to occur if the SMS firms did not have significant bargaining power. The question that should be asked is, if there weren't a significant imbalance of bargaining power, what share would the platforms keep and what would be the publishers receive?'[132] Similarly to the DMA, to ease the implementation challenges, the CMA advice suggested that arbitration would be preferable to administrative enforcement.[133] Rather than imposing their own view of FRAND, the arbitrator has to decide which offer is closest to FRAND.

Turning to the non-discrimination obligation the article argues FRAND does not impose a 'hard-edged' obligation not to discriminate between similarly situated users but requires discrimination with material effects. It also concludes that FRAND platform access is likely to address pure second line discrimination, that is discrimination between business users.

5. Conclusions

Given the practical difficulties in implementing FRAND platform access discussed above, it is unsurprising that the EC has refrained until today from saying what FRAND is. As is the consensus in the context of SEPs licensing, there is more than one set of FRAND conditions in the specific context. Contrary to the directly sanctionable obligations enshrined in Article 5, Article 6 obligations are to be

[130] Advice to DCMS on how a code of conduct could apply to platforms and content providers (6 May 2022) available at: <https://www.gov.uk/government/publications/advice-to-dcms-on-how-a-code-of-conduct-could-apply-to-platforms-and-content-providers> (last accessed 23 July 2024).
[131] Ibid., para. 5.3.
[132] Ibid., para 5.3.7.
[133] Ibid., para 6.7.11.

further specified. The decentralised approach to Article 6(12) leaves the gatekeeper free to specify its own FRAND terms and frames a procedure for their reasoning in dialogue with the Commission in respect of market particularities. The gatekeeper is free to adopt measures at its own discretion to ensure compliance with Article 6.

A decentralised and procedural approach to FRAND platform access may represent a pragmatic approach for the European Commission, as it avoids the situation of engaging in the difficult business of access pricing for intangible assets but allows the gatekeeper pretty much unconstrained to specify its own FRAND terms in the context of the alternative dispute resolution envisaged by the DMA. It is a 'win-win' situation, but for the Commission and the gatekeepers. Not for the business users, who are left marginalised in the process with very limited opportunities, if any, for a meaningful judicial review.[134]

This is mainly because the DMA has by design sought to limit judicial review. In fact, the regime is designed to ensure compliance with the substantive obligations and there is a preference for informal and negotiated outcomes. Most crucially, the DMA allows the Commission to exercise its discretion in a way that avoids the adoption of formal decisions and in a way that minimises the chances of direct action. For example, Article 8 DMA, that deals with compliance, does not require the Commission to adopt a decision declaring that the measures put in place by the gatekeeper adequately meet the objectives of the regime and of the specification obligation which they intend to implement. Instead, the provision gives the Commission the discretion to follow several procedural avenues to engage with the undertaking. Thus, it may adopt on its own initiative or at the request of the gatekeeper a 'specification decision' setting out in detail the sort of steps that the gatekeeper is to take to fulfil its duties, however, is not under any obligation to do so. Alternatively, the Commission may decide to engage in a process to determine, by means of regulatory dialogue, whether the measures put in place by the firm ensure effective compliance. The Commission enjoys enforcement discretion on whether to engage in a 'regulatory dialogue'.[135] Given the difficulties in implementing Article 6(12), one could be forgiven for thinking that the Commission may avoid engaging in a regulatory dialogue. Since the Commission has no obligation to act and retains full discretion, this means that the Commission's failure to act and enter in a 'regulatory dialogue' cannot be challenged under Article 265 TFEU.[136]

But what if the business users do not consider the terms and conditions FRAND? What are their options and avenues for redress? These are in fact quite limited and infective. First, they can express their disappointment with the European Commission, which can then share these concerns with the gatekeepers and seek to obtain a satisfactory resolution. If no resolution can be found, the Commission

[134] D Mantzari, 'FRAND in Article 6(12) DMA: a pragmatic approach with unintended consequences' (July 2024) 12 (2) Journal of Antitrust Enforcement 280.
[135] DMA, Art 8 (3).
[136] T-410/08, *GEMA v Commission*, ECLI:EU:T:2013:171, para 8.

can start proceedings under Article 20 of the DMA in conjuction with Article 29. However, since the DMA does not set a concrete deadline, these procedures will take a fair amount of time and could lead to appeals by the gatekeeper. Secondly, they can seek recourse to alternative dispute resolution mechanism, as envisaged in the DMA. Thirdly, business users can also file a complaint about the gatekeeper's practices that fall under the Regulation before national competent authorities under Article 27, in which case the national competent authority of the relevant Member State and the EC have complete discretion to choose the appropriate action to take. Fourthly, since the DMA is a regulation that enjoys direct effect, business users can have their rights under the DMA enforced by a national court. Finally, they can bring a competition law claim.

The DMA's approach to FRAND may represent a pragmatic approach to determining the terms and conditions for platform access, but invertedly harms the very interests it seeks to protect, i.e., those of the business users. The Commission can correct this asymmetry between the gatekeepers and the business users in the FRAND determination process by issuing some guidance, as this article has demonstrated. There is accumulated experience on FRAND, from SEPS to utilities, from which the Commission can derive some principles.[137] Of course, assessing what is a fair and reasonable compensation for access to intangible assets is a complex exercise and there are likely to be significant areas of disagreement between access seekers and gatekeepers. Setting out a detailed methodology on how to calculate what is fair and reasonable compensation would not be appropriate in this context. Doing so may unnecessarily limit the flexibility of the parties involved and, due to the nature of the online environment, such a methodology is unlikely to be future proof.

But still the Commission could and ought to provide some guidance on the principles for assessing FRAND. Such principles could, for instance, attempt to clarify whether gatekeepers should be remunerated for the control of network externalities, as suggested in this article. Or whether a joint share of value approach is merited in this context. Ultimately, the guidance should support the parties coming to an agreement amongst themselves and seek to avoid costly disputes that would need to be settled by the regulator. The alternatives increase the costs of business users without any meaningful judicial review. Without action, the fundamental objectives of fairness and contestability risk becoming an empty promise.

[137] For an attempt to lay down some first-order principles, see Jorge Padilla and Kadu Prasad, 'FRAND Access under Art. A6 (12) DMA: The Case of App Stores' (February 2024) in file with the author.