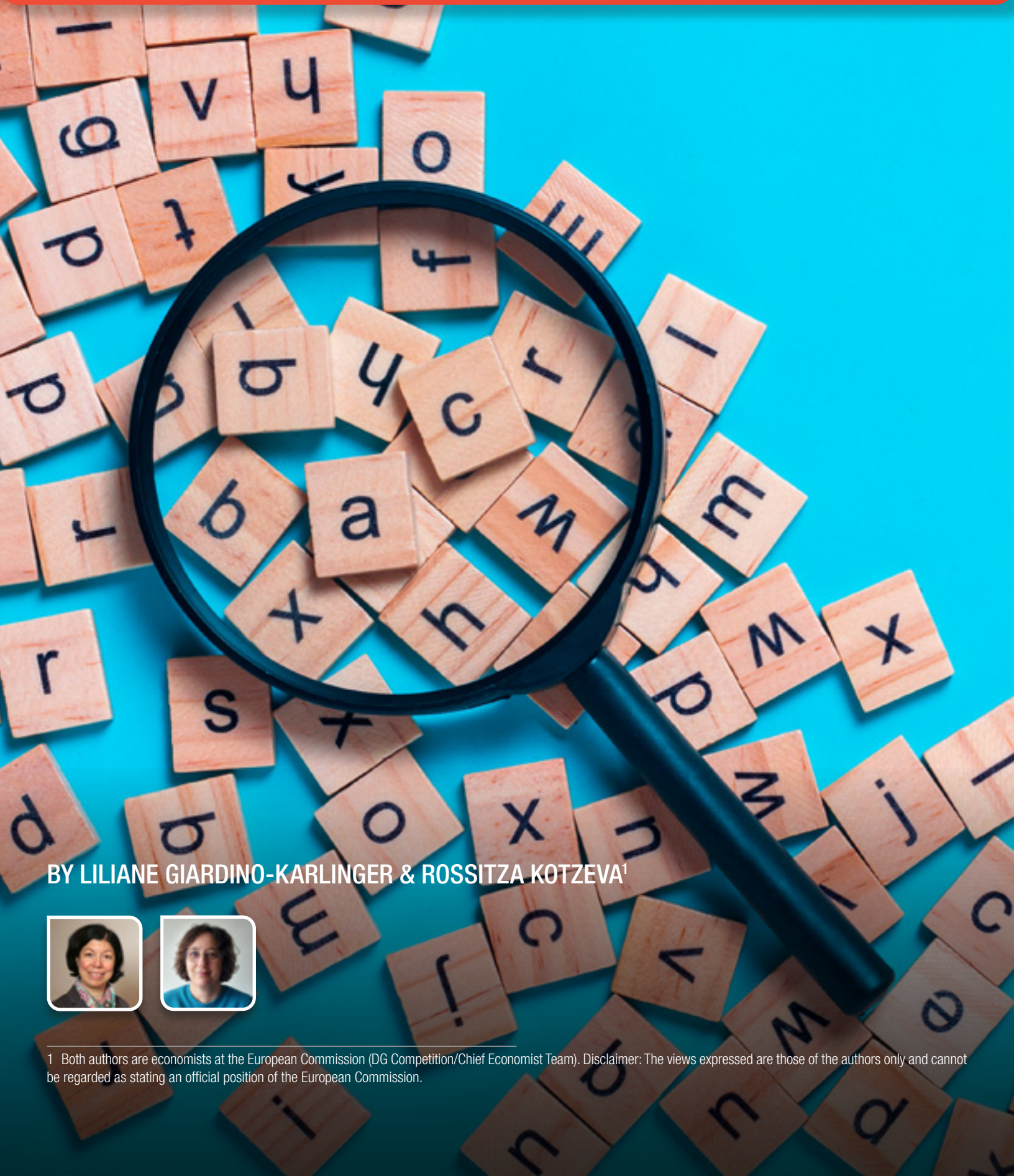
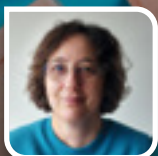


# PLATFORM MARKET DEFINITION IN EU ANTITRUST LAW: THE CASE OF *ANDROID*



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By Nestor Duch-Brown & Wouter Vergote



### PLATFORM MARKET DEFINITION IN EU ANTITRUST LAW: THE CASE OF *ANDROID*

By Liliane Giardino-Karlinger & Rossitza Kotzeva



### HOW TO APPROACH THE CALCULATION OF OVERCHARGE BY MULTISIDED PLATFORMS

By Rosa M. Abrantes-Metz & Albert D. Metz



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By Andreea Antuca, Gunnar Niels & Helen Ralston-Smith



### MARKET DEFINITION AND THREE 19A DESIGNATIONS UNDER GERMAN ANTITRUST LAW: ALPHABET, META, AND AMAZON

By Jens-Uwe Franck & Martin Peitz



### A DEFINITION OF PLATFORMS WITH MEANINGFUL POLICY IMPLICATIONS

By Jørgen Veisdal



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In April 2020, the European Commission launched the review of the Market Definition Notice (MDN), which had remained unaltered since its adoption in 1997. Among the novelties in the revised “Draft MDN” as published in November 2022 is additional guidance in relation to market definition in digital markets, such as multi-sided markets, aftermarkets, and digital eco-systems. This guidance builds on the significant experience built in the last two decades both in the realm of merger control and in antitrust enforcement. The recent General Court judgment on the European Commission’s 2018 Android decision is therefore a welcome and timely addition to the Courts’ guidance on platform market definition, notably in the context of an antitrust case, and nicely illustrates a number of key issues laid out in the revised draft MDN. This article revisits the main pillars of the Commission’s market definition in Android, and analyses the principles underlying the Commission’s approach in this case, thus addressing many of the recurring challenges encountered by authorities everywhere in dealing with defining markets in these complex environments.

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# I. INTRODUCTION

From payment systems to computer operating systems, search engines, app stores and online marketplaces, competition authorities have been increasingly dealing with companies operating platform business models. While not new – indeed, stock exchanges and ad-supported newspapers and TV have been around for quite some time - these business models have become ubiquitous with the digitalization of the economy and affect ever-increasing portions of our daily life and the economy.

Platforms are complex entities exhibiting features, such as multi-sidedness, extreme (direct and indirect) network effects, and asymmetric price structures, which have allowed a small number of platforms to grow to unprecedented scale and reach. This phenomenon posed challenges to competition law enforcers and has prompted an extensive debate among practitioners and academics alike. Nevertheless, with the growth of the economics literature on multi-sided platforms and the accumulated enforcement experience, our understanding of platform competition and the implications for antitrust enforcement have improved. The EC *Android* Decision<sup>2</sup> and the much-awaited judgment of the General Court<sup>3</sup> on this decision shed new light on this debate, notably on the boundaries of lawful competition in the smart mobile space.

While the Decision and the Court Judgement offer insights and guidance on a wide range of issues, in the present contribution we focus only on those relevant to market definition and dominance in the presence of multi-sided platforms.<sup>4</sup> The market definition in the *Android* case was indeed one of the topics discussed in the judgment, and it illustrates well how the Commission applies the principles laid down in sections 4.4 and 4.5 of the MDN draft currently in consultation.<sup>5</sup>

## II. THE MARKETS DEFINED IN THE *ANDROID* CASE – AN OVERVIEW

In the *Android* Decision the Commission established that Google had engaged in anticompetitive conduct by imposing a number of contractual restrictions on Original Equipment Manufacturers (“OEMs”), for simplicity further referred to as device manufacturers, and Mobile Network Operators (“MNOs”) in order to protect and strengthen its dominant position in general search services. In light of the specific types of conduct subject to the investigation the Commission identified a number of (complementary) products relevant for the analysis and defined, respectively, a number of interrelated relevant antitrust markets. These markets exhibit features that exemplify many of the key challenges antitrust authorities face with digital market definition:

- The presence of multi-sided platforms
- Complementarities across multi-sided platforms with after-market features<sup>6</sup>
- Indirect constraints from vertically integrated rivals
- Zero-price products

The Court appreciated the complexity of market definition in the context of digital “ecosystems” noting that *“Identifying the conditions of competition relevant to the assessment of the position of economic strength enjoyed by the undertaking concerned may therefore require multi-level or multi-directional examination in order to determine the fact and extent of the various competitive constraints that may be exerted on that undertaking.”*<sup>7</sup>

Specifically, the Commission defined four relevant markets and established that Google is dominant in the first three: (1) the market for the licensing of smart mobile Operating Systems (“OSs”); (2) the market for Android app stores; (3) the market for the provision of general search

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<sup>2</sup> European Commission Decision (2018) Case AT. 40099, *Google Android*.

<sup>3</sup> Judgment of the General Court in Case T-604/18, *Google and Alphabet v Commission (Google Android)*.

<sup>4</sup> See Franck, J. & M. Peitz (2019) “Market Definition and Market Power in the Platform Economy,” CERRE Report, for an extensive discussion of market definition in platform markets. For a more comprehensive analysis, including also the assessment of exclusionary conduct, vertical restraints and efficiencies in multi-sided platform markets, see OECD (2018) Rethinking Antitrust Tools for Multi-Sided Platforms, [www.oecd.org/competition/rethinking-antitrust-tools-for-multi-sided-platforms.htm](http://www.oecd.org/competition/rethinking-antitrust-tools-for-multi-sided-platforms.htm).

<sup>5</sup> [https://competition-policy.ec.europa.eu/public-consultations/2022-market-definition-notice\\_en](https://competition-policy.ec.europa.eu/public-consultations/2022-market-definition-notice_en). Sections 4.4 and 4.5 of the Draft Notice provide guidance on market definition in the presence of multi-sided platform and aftermarkets, bundles and digital ecosystems.

<sup>6</sup> For a discussion of competition issues in the context of digital ecosystems, see A. Fletcher (2020), “*Digital competition policy: Are ecosystems different?*,” Hearing on Competition Economics of Digital Ecosystems, OECD.

<sup>7</sup> Judgment of the General Court (n 2), para 117.

services; and (4) the market for non-OS-specific mobile web browsers. As pointed out by the Court, while the relevant markets are presented separately in the Commission Decision, they are interlinked through complementarities.<sup>8</sup>

The Commission's findings concerning the first two markets were challenged by Google before the General Court and have attracted most attention from commentators. We therefore also focus on those.

### III. MULTI-SIDED PLATFORMS

In both markets – for the licensing of mobile OSs and for app stores – the Commission dealt with multi-sided platforms. The different sides that interact on mobile OS and app store platforms were identified in the *Android* decision as being: the device manufacturers (who pre-install mobile OSs and app stores on their devices); app developers (who develop apps for specific mobile OSs and distribute them via app stores); and consumers (who purchase devices and download apps from app stores to consume digital content). An essential feature of multi-sided platforms is the presence of indirect network effects (or cross-side network effects), which imply interdependency of the demands of different user groups and lead to feedback loops. It is commonly agreed that, in order to properly assess the competitive constraints that the platform is subject to, such indirect effects need to be taken into account. In *Android* the Commission did so by defining the relevant markets from the perspective of device manufacturers and by further examining whether Google's market power *vis-a-vis* device manufacturers is constrained sufficiently by indirect effects stemming from competition at the level of app developers and users.

There has been a discussion around the best approach for factoring such effects in the analysis – through defining one market for platform services offered to customers on the different sides (single-market approach) or multiple separate, but interrelated markets.<sup>9</sup> This discussion is also reflected in the revised draft MDN (see para 95). In the *Android* decision the Commission did not explicitly address the distinction between the single and the multi-market approach. However, the approach of the Commission indicates that in practice, independently of how the market is eventually defined, it is natural to examine the different sides of a platform in order to assess in a systematic way the different sources of competitive constraints that the platform is subject to.

Concerning the market for the licensing of smart mobile OSs, in its appeal to the General Court Google essentially criticized the Commission for having defined the market from the perspective of device manufacturers and not of users and app developers<sup>10</sup>, and for having failed, as a result, to take proper account of the competitive constraint exerted by Apple. However, the Commission's approach and its conclusions regarding the strength of the indirect constraints at the level of users and app developers were confirmed by the Court.

In that regard, it is worth recalling that market definition is a tool to identify in a systematic way the immediate competitive constraints that a given company faces when offering certain products in a certain area.<sup>11</sup> It is not an abstract exercise but is grounded in the facts of the case. In *Android*, the Commission was investigating clauses in the contracts between Google and device manufacturers that could have distorted competition on the market for general search services. Given that the abusive conduct was at the level of device manufacturers, who decide which OS and apps to install on the mobile devices they offer to consumers, the products licensed to device manufacturers were the starting point for the Commission's assessments. The presence of different competitive alternatives to device manufacturers, on the one hand, and to app developers and users, on the other, was key to the Commission's approach to market definition. Indeed, while app developers have a choice between developing apps for proprietary OSs (such as the iOS and BlackBerry OS) and licensable ones (such as Android OS and Microsoft OS), the alternatives available to device manufacturers are limited to licensable OSs. Such differences in substitution possibilities on the different sides of a multi-sided platform militate in favor of defining separate, albeit interrelated, relevant markets. Consistent with such an approach, the Commission defined a market for licensable smart mobile OSs from the perspective of device manufacturers but also considered the indirect constraints at the level of app developers and mobile device users.

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8 Judgement of the General Court (n 2), para 126.

9 For details on the different arguments see, for instance, Filistrucchi, L., Geradin, D., Van Damme, E., & P. Affeldt (2014). "Market definition in two-sided markets: Theory and practice" *Journal of Competition Law and Economics*, 10(2), 293-339. Katz, M. & J. Sallet, "Multisided Platforms and Antitrust Enforcement", *The Yale Law Journal*, Vol 127 (2018), CERRE Report (2019) (n 3).

10 Judgement of the General Court, para 134 (n 2).

11 Draft Market Definition Notice, para 5 (n 4).

## IV. APP STORES

Similarly to smart mobile OSs, multi-sidedness is a feature of app stores and, in that sense, the definition of the relevant market features similar conceptual issues. However, in the case of app stores, there is an additional “after-market” element to the analysis – app stores are specific to an OS – which was an important consideration for the definition of a separate market for Android app stores. A device manufacturer who has decided to install Android on its devices can only preinstall app stores developed for Android on those same devices. Switching to a non-Android app store would require switching from Android to a non-Android OS.<sup>12</sup> However, the Commission concluded that device manufacturers do not have an incentive to do so.<sup>13</sup>

The Commission’s assessment of the competitive constraints exerted by non-Android app stores at the level of users and app developers is consistent with a “multiple markets” approach,<sup>14</sup> with Android OS constituting the primary product and app stores for Android forming a separate secondary-product market. In relation to this, Google argued that the Commission erred in not defining systems market where the iOS and the App Store compete as a system against Android and the Play Store. The draft MDN, currently under consultation, outlines the conditions under which defining a system market may be more appropriate compared to defining separate markets for primary and secondary products: (i) the more likely it is that customers take the whole-life costs into account when purchasing the primary product; (ii) the higher the expenditure on (or the value of) the secondary product(s) compared to the expenditure on (or the value of) the primary product; (iii) the higher the degree of substitutability between primary products and the lower the switching costs between primary products; and (iv) when there are no or few suppliers specialized only in the secondary product(s).<sup>15</sup>

Based on the evidence in the *Android* case the Commission did not consider it appropriate to define a system market comprising app stores and smart mobile OSs.<sup>16</sup> In particular, the Commission considered the following factual elements as relevant for this finding:

- (i) app stores and smart mobile OS are only components of the smart mobile device and the spending on apps is small compared to the costs of a smart mobile device;
- (ii) a user’s choice of an app store is determined by its choice of a smart mobile device and the corresponding mobile OS and
- (iii) a user cannot, for technical reasons, install an app store that has not been developed for that OS;
- (iv) app stores and smart mobile OSs are separate products satisfying different user needs: a smart mobile OS is a system software that controls the basic functions of a smart mobile device and enables users to make use of new combinations of functions, while an app store is an online platform dedicated to enabling users to download, install and manage apps;
- (v) Google gives access to Android without the Play Store (namely for those OEMs that did not sign the impugned agreements with Google); and
- (vi) there are several players that offer only one of these products (for example Aptoide, LG Electronics, Opera, SFR and Yandex offer an app store but not a smart mobile OS).

## V. INDIRECT CONSTRAINT FROM NON-LICENSABLE OSS

A key consideration in the assessment of the competitive constraint faced by Google in the smart mobile OS and app store markets related to the role of non-licensable OSs and, in particular, of Apple’s smart mobile OS (“iOS”) and App Store. The constraint from the latter could only be indirect given that Apple iOS is proprietary and, hence, not available to device manufacturers for preinstallation on non-Apple mobile phones. The Commission assessed competition from iOS at the user and app developer level and concluded that it is not sufficient to constrain Google’s market power *vis-a-vis* device manufacturers.

In its assessment the Commission took account of feedback effects between the two sides and the homing behavior of users and app developers. For instance, the Commission argued (and the Court agreed) that the fact that Android users were unlikely to switch to other OSs as a

<sup>12</sup> Decision, recital 285 (n 1).

<sup>13</sup> The evidence indicated that neither developers nor users are likely to switch to a non-Android OS in case of a hypothetical small but significant, non-transitory increase of the fees that app stores charge to developers or in case of a hypothetical small but significant, non-transitory deterioration of the quality of the app store.

<sup>14</sup> See para 100 of Draft MDN (n 4)

<sup>15</sup> Para 101 of the Draft MDN (n 4)

<sup>16</sup> See Decision recital 299 (n 1).

result of a small but significant deterioration of the quality of the OS implied that app developers would also lack an incentive to do so (otherwise they would forego access to the large part of mobile device users). Multihoming by app developers reinforced that conclusion.

Moreover, the issue of the strength of the competitive constraint exerted by Apple has to be viewed in the context of the case and the specific theory of harm. In that respect, that Google Search was set as the default search on Apple's mobile internet browser was an important factual element.<sup>17</sup>

## VI. FREE GOODS AND THE SSNDQ

Another important feature of Google's business model, which the Commission had to account for in its market definition and dominance assessment, was that the Android OS and the Play Store (alongside other Google products), were offered free of charge to final consumers.<sup>18</sup> *Android* is, therefore, yet another case where the Commission defined relevant antitrust markets around "free" goods in the context of multisided platform markets. Such an approach reflects the fact that zero prices and, for that matter subsidies (i.e. negative prices), may well be part of a platform's profit-maximizing strategy.<sup>19</sup> From an economic perspective it is uncontroversial that, depending on the type and strength of cross-side network effects, a platform may have an incentive to set a highly asymmetric price structure, where users on one (or more) sides are offered "free" access to the platform products or services. In practice, the presence of products offered without direct remuneration implies focusing the assessment of competitive constraints on parameters of competition other than price. In *Android*, the Commission examined the extent of demand substitutability in terms of, among other things, the quality of the OS and app stores.<sup>20</sup>

## VII. CONCLUSION

Among the new elements in the European Commission's Draft Market Definition Notice (currently under review) is additional guidance on market definition in specific circumstances such as multi-sided markets and digital ecosystems. This guidance is grounded in the Commission's enforcement experience, of which the 2018 *Android* decision and the General Court's 2022 judgment in the *Android* case are an integral part. The mobile ecosystem at the heart of the *Android* decision exhibits a number of the characteristics that are typical of platform businesses, such as the presence of multi-sided markets, complementarities across multi-sided platforms with after-market features, indirect constraints from vertically integrated rivals, and zero-price products. The *Android* decision illustrates how the Commission applies the general principles laid out in the draft MDN in light of the specific facts and circumstances of the case. In particular, the General Court sided with the Commission in confirming that, taking account of the specific facts and circumstances of the case, competition from iOS at the user and app developer level is not sufficient to constrain Google's market power *vis-a-vis* device manufacturers for licensable mobile OSs, and that a multiple-market approach is warranted whereby app stores for Android form a separate (secondary-product) market.

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17 Also discussed by the General Court at paras 271-273 (n 1).

18 Decision, recital 107 (n 1).

19 See CERRE report (2019), Section 3.3.1 (n 3) and Cremer, J., Montjoye, Y. & H. Schweitzer (2021), "Report: Competition Policy for the digital era", European Commission, p.44, for the economic considerations explaining why it may be optimal for a platform to offer products for free. See also Draft MDN, paras 97 and 98.

20 The conceptual framework on which the Commission relied on to assess whether manufacturers, users and application developers would switch away from Android app stores to app stores for other licensable smart mobile operating systems was that of a small but significant non-transitory decrease of quality ("SSNDQ") of the former (Decision, recitals 284-305). The General Court confirmed the relevance of the SSNDQ framework for the purpose of defining the relevant market (Judgement of the General Court, para 177).

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