Article

Business Models and Incentives: For an Effects-Based Approach of Self-Preferencing?

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I. Introduction

A. self-preferencing case?

Self-preferencing can be defined as an envelopment strategy in which '*the enveloper might enter the target market and, at the same time, bend the origin platform's rules to provide a better outcome for its own products or services*'.[1] The relevance of the concept of self-preferencing is particularly controversial in competition law and economics. Although not referred to in the *Google Shopping* judgment,[2] the notion of self-preferencing appears to play a significant role in the ruling, which justifies examining it in the light of Industrial Organisation (IO) literature. Conceived as a theory of competitive damage, self-preferencing may be emphasised in many cases related to the digital sector. These are ones of EU Commission *Google Shopping*[3] and *Google Android*[4] decisions, the proceedings against Amazon,[5] the ones initiated against Apple,[6] the decision of the Italian competition authority against the same company in December 2021,[7] or the ongoing proceedings before the French competition authority relating to Apple's measures on tracking tools from third-party applications.[8]

However, this umbrella concept covers different market strategies ranging from leveraging to second line injury. In our opinion, this scope is decisive and justifies a differentiated economic analysis. Leveraging is the damage theory at stake in *Google Shopping*. Through such a strategy, a dominant undertaking in a first market uses its position to extend it to adjacent ones by means other than those corresponding to competition on the merits. In the *Microsoft* case for instance, the strategy used was a tying,[9] in *Shopping* the General Court considers that the

Key Points

- We examine the self-preferencing strategy in the light of recent work in the field of Industrial Organisation by focusing on business models and incentives.
- When a platform changes its business model, moving from a zero-price model to a hybrid model in which remuneration is provided on several sides, its incentives change.
- A dual platform has different incentives than a zero-price platform and this duality affects competition in the complementors' markets impacting consumers' surplus and welfare.
- The appropriate treatment of self-preferencing is discussed, ranging from a *per se* prohibition to an effects-based approach, including the ones of the Draft DMA.

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1 Condorelli D and Padilla J, 'Harnessing Platform Envelopment in the Digital World' (2020) 16 Journal of Competition Law & Economics 143. A platform envelopment strategy is a strategy by which a dominant platform operating in a multi-sided market enters a second market by leveraging its market power.
2 Case T-612/17, *Google LLC, formerly Google Inc. and Alphabet, Inc. v Commission*, EU:T:2021:763.
3 *Google Search (Shopping)* (Case AT.39740), Commission decision of 27 June 2017.
4 *Google Android* (Case AT.40099) Commission Decision of 18 July 2018.
5 Commission, 'Antitrust: Commission sends Statement of Objections to Amazon for the use of non-public independent seller data and opens second investigation into its e-commerce business practices' IP/20/2077 (Brussels, 20 November 2020).
6 Commission, 'Antitrust: Commission sends Statement of Objections to Apple on App Store rules for music streaming providers' IP/21/2061 (Brussels, 30 April 2021). See also the opening of proceedings in the Commission, 'Antitrust: Commission opens investigation into Apple practices regarding Apple Pay' IP/20/1075 (Brussels, 16 June 2020).
7 Autorità Garante della Concorrenza e del Mercato (Italian Competition Authority), A528, 9 December 2021.
8 Autorité de la concurrence (French Competition Authority), Decision 21-D-07 of 17 March 2021 concerning a request for interim measures presented by the associations Interactive Advertising Bureau France et al. in the sector of advertising on mobile applications on iOS (Apple ATT solicitation case).
9 *Microsoft* (Case COMP/C-3/37.792) Commission Decision of 24 May 2004.

abuse was achieved through unequal algorithmic treatment between Google's own price comparison service and its competitors'.

The same concept of differentiated treatment could be pointed out in the EU Commission *Amazon* case. This one could also as be analysed as leveraging, because the platform favours its own sales over those of third-party sellers. However, the case could be considered from a quite different angle if the practice in question led to the advantage of a third-party seller at the expense of another. It is no longer a question of anticompetitive leveraging but one of second line injury. A free and undistorted access to the market for complementors[10] may be compromised by the platform's profit maximising decisions. The distortions can be induced by differences of profitability associated to each complementor. A complementor who accepts to pay for complementary services, to opt for the platform's logistics services, or to single homing is more profitable and can be rationally advantaged.

At this point two conclusions can be derived. First, self-preferencing should be assessed practice by practice and not be seen as an umbrella concept. Second, one must consider the business models and the implied incentives. Furthermore, one must analyse market practices in regards of the changes in these incentive structures that can stem from the evolutions of business models. It is therefore necessary to analyse the incentives to assess the normality of the practices at issue with respect to a competition on the merits and to evaluate changes in strategy over time against this yardstick. The very wording of the judgment invites us to proceed with this exercise.

In the end, what is the point in *Google Shopping* according to the Commission supported by the General Court? If one follows the General Court's demonstration, this is about a change in practices that makes Google's behaviour abnormal in relation to what is conceived as its business model. Its practices are twofold. First, Google Shopping's results are displayed more favourably than those of its competitors, and second, the latter are downgraded in the search results due to the application of a correction algorithm, namely Panda.[11]

If only this second practice was considered and not the combination of the two, at first sight one might defend demoting based on efficiency. Indeed, providing consumers with unsatisfactory results can damage the platform's reputation. Users may turn away from it, which has a negative effect on the revenue from the data valuation. In the present case, the point is that the criteria put forward were not satisfactory and that the correction only concerned the competitors' results and not those of Google Shopping. The lack of original content is a common feature of price comparison services. Therefore, services with identical characteristics were treated differently.

However, this unequal treatment is not the only crucial dimension of the case. The notions of abnormality and the one of the discontinuities in Google third parties' price comparators are determinant and imply to consider the incentives of the dominant player and the changes that may result from the evolution of its business model.

When a platform changes its business model, meaning moving from a zero-price model in which the remuneration only comes from one side via the attention market, to a hybrid model in which remuneration is provided on several sides (commissions, ancillary services, marketing of own services, etc.), then its incentives change. In the first case, profit maximisation and welfare maximisation may be aligned; in the second case, they may diverge. In a hybrid business model, the optimal strategy is not about maximise revenues separately on each side.

Presenting results that are not exhaustive or whose order of relevance is altered does not lead to sacrificing profits when commissions are obtained on the second side or when the placement of an in-house product enables the firm to obtain a higher profit. This leads to rational self-preferencing. Such a leveraging is no more welfare-decreasing *per se*. Self-preferencing can also take the form of discrimination among business partners. The platform then favours the partner who generates the most commissions and agrees to enter an exclusivity contract. In these different cases, profit maximisation and consumer welfare maximisation may be misaligned but not necessarily.

10 Platform sponsors must attract third-party complementors to stimulate indirect network effects. Their competitive advantage is strongly dependent on their ability to stimulate value co-creation with their complementors e.g., independent firms accessing the market through their ecosystem, proposing interoperable services, and realising complementary investments. See David P McIntyre and Arati Srinivasan, 'Networks, Platforms, and Strategy: Emerging Views and Next Steps' (2017) 38 Strategic Management Journal 141.

11 According to the General Court, such an efficiency-based defence (or quality-based one here) had not been satisfactorily performed: '*The Commission correctly pointed out that Google did not put forward any argument in relation to the unequal treatment in that respect of results from its own comparison-shopping service and results from competing comparison-shopping services*' (§560). Indeed, [competing comparison-shopping services] '*were prone being demoted within the ranking of general results due to the application of "adjustment" algorithms, in particular the "Panda" algorithm, on account of, inter alia, the characteristics of the comparison shopping services and especially their lack of original content*' (§59). Meanwhile, '*The Commission noted that those algorithms did not apply to Google's comparison shopping service despite the fact that it had numerous characteristics in common with competing comparison shopping services, that would have made it prone to the same demotions in the generic results*' §61.

B. The General Court economic approach in *Shopping*

As the General Court pointed out in *Shopping*, even though the platform crowds out third parties, the characterisation of this strategy as anticompetitive is not obvious. On the one hand, not all foreclosure is detrimental to competition (para. 157) and on the other hand, leveraging by a dominant operator is not anticompetitive either, even though it results in the foreclosure of competitors (para. 162).

However, this only applies in the context of what the General Court calls 'normal' competition, meaning competition on the merits. Supporting the Commission's reasoning, the General Court considers that Google's practices have indeed changed and that '*in essence those practices deviated from a competition on the merits, because Google's conduct on the primary market could have no economic rationale other than foreclose competition on the secondary market*' (para. 149).

The General Court considers the two sides of the platform separately (para. 178), whereas a two-sided approach implies taking both sides into account in the reasoning and considers that the change in strategy can only correspond to the implementation of an exclusionary practice and not to a change in the incentive structure resulting from an evolution of its business model.[12] Therefore, according to the General Court, the strategy thus followed (e.g., demoting competitors and displaying more favourably Google Shopping) '*seems to be the converse of the economic model underpinning the initial success of [the] search engine.*' (para. 179).

Should the assessment of a platform's strategy be changed when it moves from a zero-price model to a dual model (para. 184)? Should it be assessed on a case-by-case basis from an effects-based perspective (i.e., evaluating whether the platform's profit maximisation is always aligned with consumer welfare) or should it be sanctioned *per se*? Should the potential efficiency gains of self-preferencing strategies be considered in an efficiency-based defence? Alternatively, are risks too significant to accept the risk of competitors' resulting from practices that only a dominant operator can implement? In that case, the absence of equivalent alternative to Google Search is of first order importance.

This second option is both consistent with both the decisional practice and the Draft Digital Markets Act (DMA).[13] In its judgment, the General Court reaffirms the principle of the responsibility of the dominant operator: '*the special responsibility not to allow its behaviour to impair genuine undistorted competition – a system of undistorted competition can be guaranteed only if equality of opportunity is secured as between the various economic operators*' (para. 180).

Based on long-standing case law,[14] this assessment would lead to prohibiting a platform *per se* from changing its strategy in line with changes in its business model and imposing equal treatment whatever the potential efficiency losses (in some instances) for the consumer.

The impact of such case law would be to create a legal risk for any dominant platform that shifts its business model to a hybrid one. A convergent development may be found in the DMA, which could outlaw *ex ante* self-preferencing practices (current Article 6(1)(d)) if they fell into the category of black-listed practices (see section 3 and the cited literature on this point).

In this article, we do not comment *Shopping* in detail but want to illustrate how IO is helpful in analysing this type of situation. Our paper aims to show that competitive assessment should be based on an understanding of business models, the incentives that firms face, and their possible impact on welfare. Changes when a platform moves from a zero-price model to a hybrid model is not necessarily an abnormal strategy that only makes sense in the context of impediment competition, it can be rational and should be judged on a case-by-case basis in terms of economic effects. Unless one considers that practices implemented by a gatekeeper significantly and irreversibly undermine the contestability of positions and fair competition on the market, then *ex ante* rules such as the ones of the Draft DMA would make sense. Figure 1, in annex, illustrates such a roadmap.

The objective of the present paper is to interrogate the IO results on this question to shed light on the issues raised by the *Shopping* ruling. The paper is then structured as follows. Section II presents the differences between the economic model of a zero-price platform and that of a dual role one and sheds light on the impact in terms of incentives. Section III discusses the trade-offs in terms of competitive treatment. Section IV concludes.

12 For a discussion on single-market approach vs. multi-markets approach in the context of a two-sided platform, Jens-Uwe Franck and Martin Peitz, 'Market Definition in the Platform Economy' (2021) 23 Cambridge Yearbook of European Legal Studies 91.

13 Proposal for a Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act), COM/2020/842 final, 15 December 2020.

14 See the *Deutsche Telekom* judgment. As the General court reaffirms in Google Shopping (para. 180): '[a] system of undistorted competition can be guaranteed only if equality of opportunity is secured as between the various economic operators (see Case C-280/08 P *Deutsche Telekom AG v Commission*, EU:C:2010:603, para. 230').

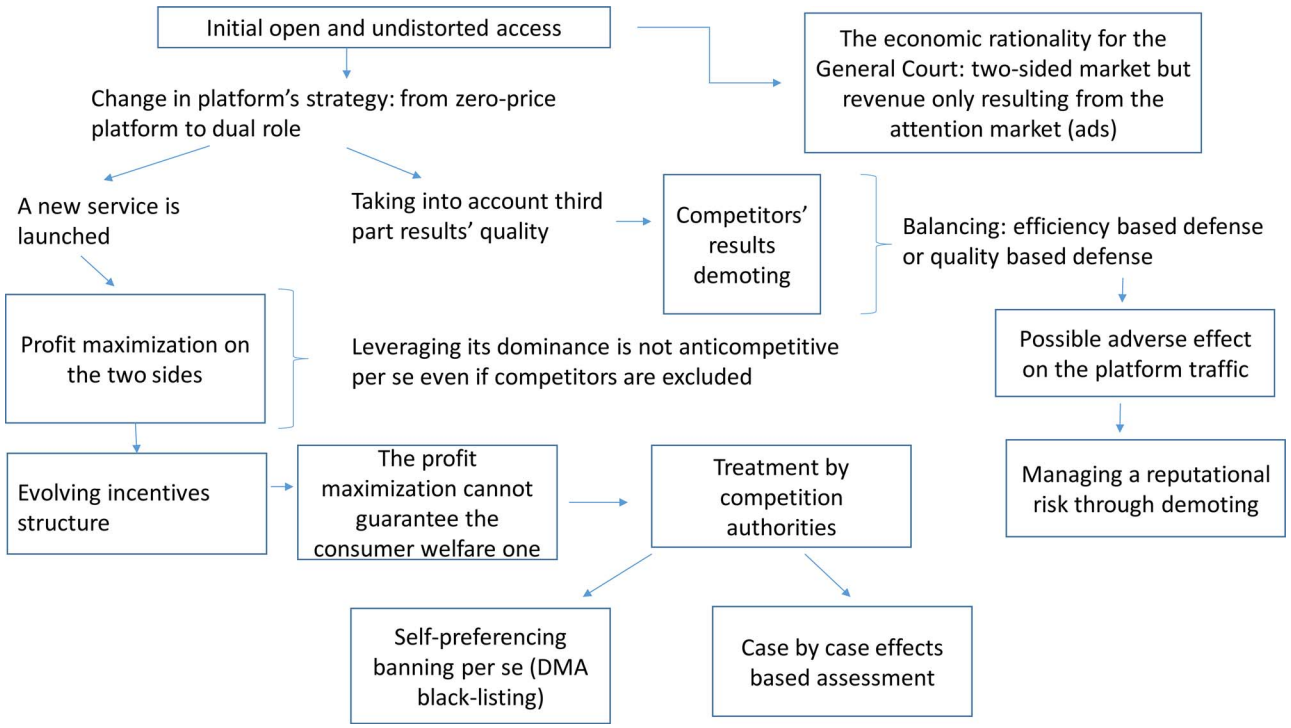

Figure 1. The Google Shopping scenario.

II. From a zero-price platform to a dual model: the evolution of the business model

A. The zero-price platform model

Google started as a two-sided platform connecting internet users and advertisers. The platform offers free services to users (mainly Internet search), collects data, sells targeted advertising, and later added additional free services for users such as mail or calendar. The corresponding business model is the zero-price platform.[15] Revenue is only generated on one side by valuing consumers' data on the advertising side. Therefore, to maximise the revenue on the advertising side, the platform should maximise participation and usage on the user side. To this end, the platform should offer the best possible services to consumers, for instance the most relevant search results.[16] There is, however, one limit to that. As the platforms collect data from users and use these data for targeting advertising, consumers and the platform may have diverging interests regarding privacy.[17] In that case, the platform may eventually reduce privacy to collect more data from users and increase revenue form advertising, i.e., there is a trade-off between data collection and users' participation. Nevertheless, platform openness and the absence of discrimination follow from profit (and consumers' surplus) maximisation and the platform has, *a priori*, no incentives to distort the algorithm.

Many commercial services including price comparison websites use the platform for providing services to consumers. These service providers need the platform to access the consumers, i.e., the platform plays the role of a gatekeeper for these complementary services. Third-party services are generating additional traffic and data on the platform and thereby additional advertising income. And, as long as, the complementors are not a direct source of income for the platform, platform neutrality might be preserved.

15 Shiva Shekhar, 'Zero Pricing Platform Competition' (2020), available at https://ssrn.com/abstract=3564359.

16 "*Generally, on 'two-sided' platforms, one side being free of charge for one user group (in this case, internet users) makes it possible, if the platform functions well, to strengthen demand for the other side, whose user group (in this case, advertisers who want to reach as many internet users as possible) is required to pay. To that extent, the various online general search services compete to attract both internet users and advertisers through the quality of their search engine*" (para. 43), *Google Shopping* (n 2).

17 See, for instance, Paul Belleflamme and Wouter Vergote, 'Monopoly Price Discrimination and Privacy: The Hidden Cost of Hiding' (2016) 149 Economics Letters 141; Alexandre de Cornière and Romain de Nijs, 'Online Advertising and Privacy' (2016) 47 The RAND Journal of Economics 48; Rodrigo Montes, Wilfried Sand-Zantman and Tommaso Valletti, 'The Value of Personal Information in Online Markets with Endogenous Privacy' (2019) 65 Management Science 1342.

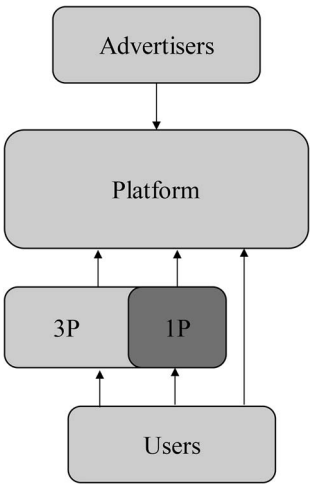

Figure 2. The multi-sided business model. It shows that the platform is an intermediate between advertisers and users. Third-party (3P) and First-party (1P) complementors use the platform to provide services to users.

There is only one exception to that: if the organic search results have a low quality, there is a risk that they reduce the consumers' surplus and may damage the platform's reputation and thereby on its traffic and its income. This may justify an algorithmic correction, but this should be objective, necessary, and proportionate and it should be applied to all that are in the same situation.

B. The dual role of platforms

The Google model has changed with the entry of the platform in the complementors' markets (see Figure 2 in annex), for instance, video streaming (YouTube), price comparison website (Shopping), translation (Translate), cloud sync services (Drive), and so on.[18] Google has now two sources of income and it will use its instruments—mainly advertising price and algorithmic correction—considering the trade-off between the two sides of the platform. Algorithmic correction beyond what is necessary to maintain quality can be used to maximise its profit and the neutrality of the platform is no longer granted.

This feature is not specific to Google. The *Wall Street Journal* reports that Amazon optimised its search algorithm that ranks products so that instead of showing to consumers the most relevant and best-selling results as it did before, it gives a boost to the most profitable items sold on the platform, a change that created tensions inside of the company.[19] The algorithm then became biased in favour of the highest-margin products; Amazon arbitrates between consumers' surplus (i.e., traffic on the platform) and profits from sales.[20] In general, a dual platform that derives profits from both participation on the platform and the sales of complementors will no longer be neutral and will rather arbitrate between the different income sources to optimise its profit. Biased intermediation is likely to be associated with a dual platform.

Against this background, biased intermediation is not necessarily associated with a decrease in welfare[21], and there is a lot of recent literature in economics that analyse the welfare consequences of duality with mixed results. For instance, Hagiu and others show that banning the dual role benefits third-party sellers, but lowers consumer surplus or total welfare, even when allowing for innovation by 3P sellers, and imitation and self-preferencing by the platform.[22] Gautier and others show that the platform's participation in the third-party market intensifies competition but fragments demand and therefore possibly reduce network benefits.[23] Anderson and Bedre-Defolie as well as Padilla and others show that a dual platform uses self-preferencing to promote its own products and this ultimately hurts consumers.[24] The recent literature in IO on hybrid platforms displayed mixed evidence on the impact of duality on consumers and welfare. Platform participation in the 3P market has an impact on the competitiveness of the market. In Gautier and others, the platform's entry makes the 3P market more competitive, whereas in Anderson and Bedre-Defolie, platform duality reduces the range of products available and competition on the market is reduced. All this literature shows that a dual platform has different incentives than a zero-price platform. In particular, it will no longer be neutral in its recommendation system. As consequence,

18 Most of the complementary services provided by Google are ad-funded but this is more a choice of the platform than a characteristic of the complementors' market as the competing complementors may choose another source of income, for instance a subscription-based model (video streaming) or a commission fee (Amazon Marketplace). Two-sideness is not a characteristic of the market but of the firms. See Broos S and Ramos JM, 'Competing Business Models and Two-Sidedness' (2017) 62 The Antitrust Bulletin 382.

19 Dana Mattioli, 'Amazon Changed Search Algorithm in Ways That Boost Its Own Products' *The Wall Street Journal* (New York City, 16 September 2019).

20 For an analysis of strategic recommendations, see Marc Bourreau and Germain Gaudin (2021), 'Streaming Platform and Strategic Recommendation Bias', Journal of Economics and Management Strategy, https://doi.org/10.1111/jems.12452.

21 See for instance Alexandre de Cornière and Greg Taylor, 'A Model of Biased Intermediation' (2019) 50 The RAND Journal of Economics 854.

22 Andrei Hagiu, Tat-How Teh and Julian Wright J, 'Should Platforms Be Allowed to Sell on Their Own Marketplaces?', https://ssrn.com/abstract=3606055, forthcoming in RAND Journal of Economics.

23 Axel Gautier, Leonardo Madio and Shiva Shekhar (2021), 'Platform Duality and Network Externalities' (mimeo).

24 Simon Anderson and Özlem Bedre-Defolie, 'Hybrid Platform Model' (2021) https://ssrn.com/abstract=3867851; Jorge Padilla, Salvatore Piccolo and Shiva Shekhar, 'Vertical Control Change and Platform Organization Under Network Externalities' (2021) https://ssrn.com/abstract=3933646. accessed 17 February 2022.

duality affects competition in the complementors' markets impacting consumers' surplus and welfare. Whether this constitutes an infringement of competition law, and therefore should be prohibited, is discussed in the next section.

III. How can this new business model should be addressed competition analysis?

The *Shopping* judgment deals with a case of self-preferencing based on a precedent, *Microsoft*, which corresponds to a tying. Although the two strategies should be distinguished, they have similar effects in digital markets. Indeed, they lead to distorting the choices in the tied market in favour of the product of the dominant firm in the tying market.

The IO literature shows that the effects of vertical integration of platforms are not unequivocal. Given that the effects are highly contingent on the circumstances, it calls for a certain pragmatism in terms of recommendations for the enforcement of competition rules. As shown in our previous section, the emerging literature on self-preferencing in the multi-sided market makes it possible to analyse the platform's incentives in undertaking such a strategy and the expected competitive effects.[25] If leveraging or self-preferencing strategies make economic sense for the platform, this has not always a negative impact in terms of efficiency. We first outline the main results on tying in a two-sided market, which echoes the *Shopping* case, and then discuss possible treatments.

A. Assessing tying and self-preferencing strategies under the lens of IO

Amelio and Jullien show that tying can serve as a mechanism to introduce implicit subsidies on one side of the market to solve the coordination failure in two-sided markets.[26] As a result, tying can raise participation on both sides and can benefit consumers in the case of a monopoly platform. However, when the market structure turns into a duopoly, tying also has a strategic effect on competition. The effects of tying on consumer surplus and social welfare depend on the extent of asymmetry in externalities between the two sides. By investigating the role of multihoming on both sides of the market, Choi provides an analysis of tying in two-sided markets.[27] He shows that tying can be welfare-enhancing if one allows for multihoming, even in cases where its welfare impacts are negative in the absence of multihoming.

Choi and Jeon develop a leverage theory of tying in two-sided markets.[28] They analyse incentives to leverage market power. Assume that market A is served by firm 1, a monopolistic platform. In market B, two platforms, firm 1 and firm 2, are competing. Platforms sell products to consumers and use the customer base to derive advertising revenues from advertisers who need access to consumers. The relationship between the product in market A and a product in market B can be either independent or complementary. The two products are independent when the value that a consumer obtains from a product does not depend on whether a consumer consumes or not the other product. Against this background, Choi and Jeon apply their modelling to *Shopping* in which 'Google search' is tied with 'Google shopping' by imposing a zero-price constraint on both markets as both general search and price comparison sites do not charge users directly. Regardless of whether general search and shopping sites are independent or complementary products, the authors show that tying reduces consumer surplus and welfare because users' choices are restricted.

Iacobucci and Ducci analyse the *Google Shopping* case, too.[29] As we have seen, both general and vertical search are two-sided platforms matching searchers and advertisers. By tying vertical search to general search through visual prominence, Google may attract additional advertisers on its vertical search platform that would have possibly advertised on competing vertical search platforms without a tie. The effect of tying is a restriction on competition in vertical search. Besides, beyond tying, other strategies can lead to crowd out third parties, for instance by reducing interoperability, where possibility of sustained foreclosure is strong,[30] or platforms' self-preferencing strategies.

25 For a survey and discussion on platforms competition, see Bruno Jullien, Alessandro Pavan and Marc Rysman, 'Two-Sided Markets, Pricing, and Network Effects', *Handbook of Industrial Organization, Vol. 4* (Elsevier 2021); Bruno Jullien and Wilfried Sand-Zantman, 'The Economics of Platforms: A Theory Guide for Competition Policy' (2021) 54 Information Economics and Policy 100880; Belleflamme P and Peitz M, *The Economics of Platforms: Concepts and Strategy* (Cambridge, UK, Cambridge University Press 2021).

26 Andrea Amelio and Bruno Jullien, 'Tying and Freebies in Two-Sided Markets' (2012) 30 International Journal of Industrial Organization 436.

27 Jay Pil Choi, 'Tying in Two-Sided Markets with Multi-Homing' (2010) 58 The Journal of Industrial Economics 607.

28 Jay Pil Choi and Doh-Shin Jeon, 'A Leverage Theory of Tying in Two-Sided Markets with Nonnegative Price Constraints' (2021) 13 American Economic Journal: Microeconomics 283.

29 Edward Iacobucci and Francesco Ducci, 'The Google Search Case in Europe: Tying and the Single Monopoly Profit Theorem in Two-Sided Markets' (2019) 47 European Journal of Law and Economics 15.

30 Chun-Hui Miao, 'Limiting Compatibility in Two-Sided Markets' (2009) 8 Review of Network Economics 346. Alexandre de Cornière A and Greg Taylor, 'A Model of Biased Intermediation' (2019) 50 The RAND Journal of Economics 854.

B. Should we perform an effects-based approach to tying and self-preferencing strategies?

The question of the competition law treatment of tying and self-preferencing strategies is indeed open. Crémer and others recognise that the operation of digital ecosystems can yield efficiency gains.[31] The architectural power that the dominant platform has makes it capable of favouring the investment decisions of the various members of the ecosystem and thereby generating efficiency gains that benefit the consumer. Yet, as Parker and Van Alstyne note, a platform does not act exclusively as a disinterested 'social planner' maximising the welfare of the whole ecosystems (complementors and users).[32] The platform-based model can certainly allow all actors to benefit from network effects, R&D spillovers, and the lowering of barriers to entry. However, the platform may want to appropriate a higher share of the gains and defend its pivotal position. In these cases, the collective interest and the platform's own interest may diverge.

One illustration of this divergence is the existence of a dual role whereby the platform can be both the organiser of the ecosystem, implement a 'private ordering' of the market in question and be one of its players. In such a position, the platform can implement strategies whose effects on competition can be discussed. These can first be considered from the perspective of leveraging. This is a well-known competitive practice that can take the form of tying, bundling, or interoperability barriers. For a dominant company, it can be both an offensive strategy (profitable extension of the dominant position to an adjacent market) or a defensive strategy (protection of the dominant position on the connected market and/or preservation of the revenue streams linked to this position). Although leveraging may have procompetitive effects (cf. the gains from vertical integration[33]), its effects must be assessed on a case-by-case basis.[34]

One category of leveraging stands out: the self-preferencing strategy. The *Shopping* case falls into this category. It is about promoting one's own products in a related market to the detriment of third-party products. This may seem like a legitimate reward for the investment made and can be welfare-enhancing. Crémer and others argue for a prohibition insofar as the upstream position amounts to an essential facility. As soon as this last condition is not met, an effects-based approach would be necessary but should be based on a reversal of the burden of proof. It would be up to the gatekeeper on an upstream market, characterised by strong network effects and high barriers to entry, and with private regulatory power over the ecosystem, to show that the procompetitive effects outweigh the competitive risks.[35] The logic is then primarily one of procedural efficiency. The low explicability of ranking or recommendation algorithms imposes in this perspective to put the burden of proof on the best-informed party who can do it at the lowest cost[36] .

The report prepared by Cabral and others differs from that of Crémer and others on this point. The former admits an efficiency-base defence for tying and bundling in view of potentially procompetitive effects for the consumer in terms of quality of service and complementary innovations. Then, it proposes to place these practices on the DMA grey list. '*We recommend that tying and related practices be presumed anti-competitive and grey-listed, and that the burden of proving pro-competitive effects be placed on the gatekeepers*' (p. 13). For self-preferencing, the report again takes a stricter view than the Crémer report. '*The potential for harm is that the platform has an interest in favouring its own "affiliate" and distort competition in a way that possibly reduces consumer welfare.'* The report recommends imposing '*a rule of non-discrimination would imply that an algorithm's recommendation (and the order of display) be a function of objective characteristics and not depend on the product's affiliation with the platform*'. Self-preferencing would then be blacklisted and banned *per se*.[37]

As earlier noted, in the *Shopping* case, the precedent used is that of leveraging. Thus, an efficiency defence is possible. The question is whether it is legitimate in economic terms to consider that anticompetitive effects can be presumed to outweigh others in the context of such practices.

31 Jacques Crémer, Yves-Alexandre de Montjoye and Heike Schweitzer, 'Competition Policy for the Digital Era' (2019) Final Report, European Union.

32 Geoffrey Parker and Marshall Van Alstyne, 'Innovation, Openness, and Platform Control' (2018) 64 Management Science 3015.

33 Alexandre de Cornière and Greg Taylor, 'Upstream Bundling and Leverage of Market Power' (2021) 131 Economic Journal 3122.

34 The timing of the release of the two reports is worth noting. The Crémer et al. report came out before the proposed Digital Markets Act, while the Cabral et al. report follows the Draft DMA.

35 According to Pablo Ibáñez Colomo the inversion of the burden of proof '*is only appropriate to treat practices as prima facie unlawful where there is "sufficiently reliable and robust" experience about their nature, purpose and (pro- and anticompetitive) effects*'. See Pablo Ibáñez Colomo, 'Self-Preferencing: Yet Another Epithet in Need of Limiting Principles' (2020) 43 World Competition 417.

36 As Demsetz states: '*[it] generally makes sense from the economic viewpoint of placing the liability on that party who can, at least cost, reduce the probability of a costly interaction happening*' See Harold Demsetz H, 'When Does the Rule of Liability Matter?' (1972) 1 Journal of Legal Studies 13, 28.

37 '*In this sense, self-preferencing comes across as different from the sort of conduct that is typically treated as prima facie unlawful, such as cartel-like arrangements*' See Ibáñez Colomo P, 'Self-Preferencing: Yet Another Epithet in Need of Limiting Principles' (2020) 43 World Competition 417.

IV. Conclusion

The judgment is of great importance not only because it may constitute a precedent for the treatment of strategies grouped under the term 'self-preferencing' but also because it takes place in the context of the adoption of the DMA. In this respect, it questions the future coupling between *ex ante* rules and the activation of *ex post* competition rules.[38]

This coupling can be viewed from the perspective of economic efficiency. IO literature shows that platform vertical integration can be welfare-enhancing.[39] Similarly, fee discrimination between the different participants in a marketplace and even the entry of the platform as a seller on its own marketplace do not produce unequivocal effects on efficiency.[40] Consequently, as Mark Tremblay states: '*banning fee discriminations and platform entry is detrimental to welfare*'.[41] Thus, understanding platforms' strategies requires looking at their incentives.[42] Since a strategy that is profitable for the platform may be collectively negative, it is necessary to assess its effect on welfare. In this respect, the competitive analysis must consider the different sides of the platforms' activity.[43] This comprehensive business model assessment needs to be updated as soon as a company's business model changes. [44]

These different dimensions lead us to recommend, from an IO perspective, a case-by-case assessment based on a balance of effects. However, it is not an easy task. The digital-related cases show that an effects-based approach can be difficult to implement due to the difficulty of interpreting the algorithms. This provides a sound basis for the arguments of Crémer and others in support of the reversal of the burden of proof.[45] It could even be considered that the practices in question, even once characterised as anticompetitive, could have irremediable effects on competition. Hence, the arguments in favour of blacklisting self-preferencing could be defended.[46] These approaches are therefore legitimate when considered from the point of view of the procedural efficiency of the competition rule enforcement or when we look at broader objectives as maintaining the contestability of markets or defending fairness and equal treatment. However, they can be questioned once the potentially pro-efficiency effects of leveraging and self-preferencing are considered. Measuring effects on a case-by-case basis is the best solution in terms of efficiency not only at the level of each individual case but also in terms of the signal given to market players. Excessively strict rules or a *per se* ban could deprive the consumer of potential future gains resulting from digital ecosystems business models.

However, in the EU decisional practice, a *per se* prohibition is implemented since the asset held by the dominant undertaking corresponds to an essential facility, i.e., is indispensable for accessing the market. Within the DMA, such a qualification might be possible as soon as a platform operator is designed as a gatekeeper. Similarly, if a self-preferencing strategy were to eliminate competition irremediably (without any possible effective remedies) and thus compromise the contestability of current market positions and hinder a fair competition within a gatekeeper-controlled ecosystem, a *per se* prohibition could also be defended. These uncertainties advocate for both a better economic understanding of business models and the development of empirical studies on the contestability of digital markets.

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38 See, e.g., Oliver Budzinski and Juliane Mendelsohn, 'Regulating Big Tech: From Competition Policy to Sector Regulation?' (2021) https://ssrn.com/abstract=3938167. accessed 17 February 2022.

39 Vertical integration is rational for the platform ('*the monopoly cannot capture the surplus created on the complementary segment for the side non-buying the monopoly product*'. See Jay Pil Choi, 'Tying in Two-Sided Markets with Multi-Homing' (2010) 58 Journal of Industrial Economics 607. Furthermore, such a vertical integration can have other effects at the collective level than foreclosing.

40 Elias Carroni, Leonardo Madio and Shiva Shekhar, 'Superstar Exclusivity in Two-Sided Markets' (2021) available at https://ssrn.com/abstract=3243777. accessed 17 February 2022.

41 Mark Tremblay, 'The Limits of Marketplace Fee Discrimination' (2021) Cesifo Working Paper no. 9440 https://www.cesifo.org/DocDL/cesifo1_wp9440.pdf. accessed 17 February 2022.

42 Cristina Caffarra, 'Follow the Money—Mapping Issues with Digital Platforms into Actionable Theories of Harm' (2019) 91579 e-Competitions bulletin https://ecp.crai.com/wp-content/uploads/2019/09/e-Competitions-Special-Issue-Cristina-Caffarra.pdf. accessed 17 February 2022.

43 Thomas Eisenmann, Geoffrey Parker and Marshall Van Alstyne, 'Platform Envelopment' (2011) 32 Strategic Management Journal 1270; Gunnar Niels, 'Transaction Versus Non-Transaction Platforms: A False Dichotomy in Two-Sided Market Definition' (2019) 15 Journal of Competition Law & Economics 327. According to Julien et Sand-Zantman (2021): '*dealing with such cases will require recognizing the interlocking between markets and the need to have a global cross-market analysis*'. See Jullien and Sand-Zantman (n 25).

44 For instance, the definition of relevant markets should be fitted to the business model of the firm prosecuted and be adapted to its evolutions. See Julien et Sand-Zantman (2021) quoting Mario Monti: 'market definitions only make sense in the context in which questions are posed'. See also the case of Amazon. The raising importance of adverts-related revenues in its turn-over may make its business-model and then its incentives evolve. See Jullien and Sand-Zantman (n 25)

45 Crémer, de Montjoye and Schweitzer (n 31). accessed 17 February 2022.

46 Luis Cabral L and others, 'The EU Digital Markets Act A Report from a Panel of Economic Experts' (2021) https://publications.jrc.ec.europa.eu/repository/bitstream/JRC122910/jrc122910_external_study_report_-_the_eu_digital_markets_acts.pdf.