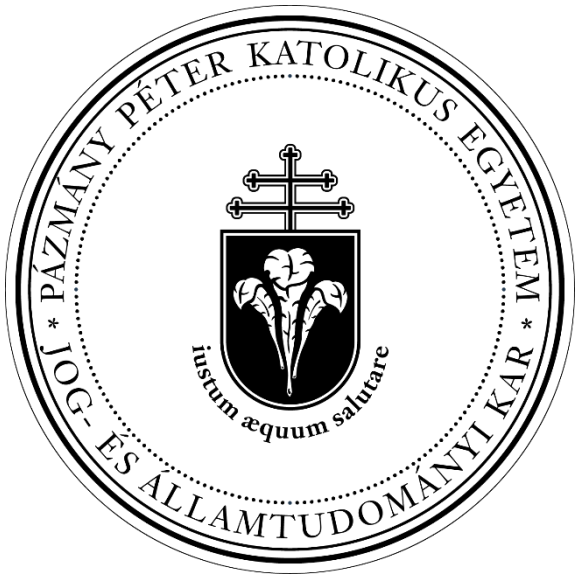

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Prohibiting algorithmic foreclosure as a key pillar of digital market regulation

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Prohibiting algorithmic foreclosure as a key pillar of digital market regulation

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Abstract

This paper addresses concerns relating to algorithmic bias, taking the form of self-preferencing which is perceived to be a key pillar of market regulation in the digital era. Although non-price discrimination against rivals is an essential part of competition in many instances, self-preferencing practices – employed by hybrid digital platforms that do not act as pure intermediaries but are also present in adjacent markets – may potentially lead to anti-competitive algorithmic foreclosure. Accordingly, this paper analyses self-preferencing from a substantive law point of view under Article 102 TFEU and proposes an analytical framework based on which the legality of these kinds of practices can be assessed. The analysis of the established types of abuses suggests that there is a gap in law in the existing types of abuses. Consequently, they cannot or should not be employed to tackle self-preferencing. The findings of the state-of-the-art legal, economics, industrial organization, and empirical research warrant for this potentially new *sui generis* abuse a case-by-case, effects-based analysis without, however, the *Bronner* criteria, including, indispensability being part of the legal test.

Keywords: Algorithmic bias, Self-preferencing, Digital platforms, Article 102 TFEU.

I. Introduction

Self-preferencing in the digital world usually takes the form of algorithmic bias whereby vertically and/or horizontally integrated (hybrid) platforms favour their own related products or services. From a competition law point of view, in many cases favouring one's own products and services is the very essence of competition. Thus, it is generally considered to be welfare-enhancing and pro-competitive. In other cases, it is perceived that self-preferencing may harm competition and may potentially lead to foreclosure. As a result, and in particular, due to the rapid growth, high market shares, and sometimes durable market position of digital platforms this type of conduct is perceived to be one of the most important challenges of market regulation in the digital era.[1]

The ambiguous effects of self-preferencing on competition raise the question of, *first*, how to define the substantive reach, scope of application, and outer boundaries of this potentially new abuse under Article 102 TFEU.[2] In this regard, due to the potentially wide scope of application, there may be a need for clearer limiting principles so that self-preferencing applies only to narrow factual circumstances, inter alia, either based on the partially open business model or the intrinsically open nature of the products in question. *Second*, the concern arises how to assess the legality of self-preferencing in each situation i.e., what legal standards shall apply and how to allocate the burden to prove an alleged infringement. In this regard, from a substantive law point of view, a practice that does not invariably harm competition but rather produces ambiguous effects is more suitable for a case-by-case, effects-based approach taken

[1] Report of the Digital Competition Expert Panel, 'Unlocking Digital Competition' (2019) 63; OECD, 'Abuse of Dominance in Digital Markets' (OECD Publishing 2020) 54-55; Stigler Committee on Digital Platforms, 'Final Report' (2019) 33; Joint Research Centre, 'The EU Digital Markets Act: A Report from a Panel of Economic Experts' (2021) 13; European Commission, 'Competition Policy for the Digital Era A report by Jacques Crémer, Yves-Alexandre de Montjoye, Heike Schweitzer' (2019) 66.

[2] Consolidated version of the Treaty on the Functioning of the European Union [2012] OJ C 326/47.

under Article 102 TFEU as compared to the outright prohibition enshrined in the recently adopted Digital Markets Act (DMA).[3] Indispensability, however, does not necessarily have to be part of the legal test applicable to the assessment of self-preferencing by open platforms based on the judgments delivered by the Court of Justice of the European Union (ECJ) in the *Slovak Telekom,* and *TeliaSonera* cases.[4] This criteria laid down in the *Bronner* judgment can be reserved for exceptional circumstances where a closed platform is forced to deal with third parties.[5]

Although self-preferencing has transformed into a popular topic nowadays, it is not an entirely novel issue. We can discover leveraging and discrimination as underlying concepts in various practices that have previously been identified as abusive under Article 102 TFEU. More specifically, dominant firms favouring their subsidiaries have been condemned in many instances under EU competition law. In this context, a *third* question arises whether it makes sense to establish a new category of abuse that partially overlaps other categories. The analysis of the different existing types of abuses suggests that none of those seem to fully tackle the concern posed by platforms favouring their businesses. Thus, self-preferencing seems to fill a gap in the law by tackling practices related to internal non-price-based discrimination favouring a dominant platform's ancillary activities. In any event, there is no need to precisely categorize self-preferencing under any subparagraphs enshrined in Article 102 TFEU. Self-preferencing can be condemned based on its effects pursuant to the general notion of abuse without the need for any further specific categorization.

[3] 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) [2022] OJ L 265/1.
[4] Case C-165/19 P *Slovak Telekom v Commission,* ECLI:EU:C:2021:239; Case C-52/09 *TeliaSonera Sverige* [2011] ECR I-00527.
[5] Case C-7/97 *Bronner* [1998] ECR I-07791, para 41.

The questions raised in this paper are more than current based on the General Court's *Google Shopping* judgment[6] being currently under appeal before the Court of Justice[7] which just recently held hearings in the case. Consequently, most of the questions raised in this paper are to be decided by the ECJ in its forthcoming *Google Shopping* judgment.[8] Accordingly, this paper first aims to shed light on the ambiguous effects of self-preferencing practices on competition. In light of this, we can, in turn, attempt to address the place of self-preferencing within the established types of abuses, and the legal test that shall be applicable to it.

II. Self-preferencing a practice with ambiguous effects on competition

A. Definition of digital platforms used for the purposes of this paper

Digital platforms are defined by the EU Commission's Report as firms that obtain their market power by connecting different entities.[9] These platforms lie in the centres within complex ecosystems, based on modularity and complementarity covering operation systems, a broad spectrum of applications, and websites. Hagiu and Wright offered a more specific definition of multi-sided platforms that concentrates on their features.[10] They *first* require direct interactions between at least two distinct sides meaning that platform users retain a certain level of control over the parameters of their interaction.[11] And *second*, they require affiliation i.e., platform-specific investments enabling the different sides to interact with one another.[12]

[6] Case T-612/17 *Google and Alphabet v Commission (Google Shopping)*, ECLI:EU:T:2021:763.
[7] Case C-48/22 P *Google and Alphabet v Commission (Google Shopping)*, not yet decided.
[8] Case C-48/22 P Appeal brought on 20 January 2022 by Google LLC and Alphabet, Inc. against the judgment of the General Court (Ninth Chamber, Extended Composition) delivered on 10 November 2021 in Case T-612/17, Google and Alphabet v Commission.
[9] European Commission (n 1), 13.
[10] Andrei Hagiu and Julian Wright, 'Multi-sided platforms' (2015) 43 International Journal of Industrial Organization 162, 163.
[11] Ibid.
[12] Ibid.

B. Definition of self-preferencing

Building upon the above-described definition of platforms, self-preferencing in the context of Article 102 TFEU seems to cover situations where vertically or horizontally integrated i.e., hybrid digital platforms dominant on a market favour their own products/services as compared to the offers of third parties on the same platform. To begin with, the potentially abusive nature of self-preferencing, as with any other abuse of dominance, is conditional upon the undertaking being dominant i.e., having significant market power. That is, in economic terms, the ability to act independently from competitors to an appreciable extent.[13] The case law of the ECJ adds to this economic definition the ability to behave to some extent independently from customers and consumers.[14]

In addition to dominance, self-preferencing, first, seems to apply to dominant digital platforms that employ at least a partially open infrastructure.[15] In other words, self-preferencing applies where platforms host third parties while allowing these third parties to retain some control of the parameters of their interactions with their customers.[16] Consequently, either the open business model or the intrinsically open nature of the products/services seems to be a crucial distinguishing factor between self-preferencing by hybrid digital platforms as compared to self-preferencing in the traditional brick-and-mortar world for instance by supermarkets. As per Hagiu and Wright's definition supermarkets would not even amount to platforms although they generally sell third-party products. However, they seem to fail to meet the conditions set out

[13] Simon Bishop and Mike Walker, *The Economics of EC Competition Law: Concepts, Application and Measurement* (Sweet & Maxwell 2010) 228.
[14] Case C-85/76 *Hoffmann-La Roche v Commission* [1979] ECR 00461, paras 38–39.
[15] Christian Ahlborn, Gerwin Van Gerven, and William Leslie, 'Bronner revisited: Google Shopping and the Resurrection of Discrimination Under Article 102 TFEU' (2022) 13(2) Journal of European Competition Law & Practice 87, 89.
[16] Hagiu and Wright (n 10), 163.

above, namely, direct interactions between sellers of products available on the shelves of supermarkets and affiliation i.e., platform-specific investments.[17]

The second condition for the application of self-preferencing under 102 TFEU, is the need for the operators of these platforms to be present in at least two markets that are either horizontally or vertically related.[18] Third, the dominant, vertically or horizontally integrated platform that operates an at least partially open infrastructure needs to discriminate between the hosted third parties and the platforms' own products/services in a way that the conduct constitutes a departure from competition on the merits.[19] Fourth, the conduct must be at least capable of producing exclusionary effects, but no proof of actual exclusionary effects is needed.[20] Fifth, there is a need for causality between those effects and the conduct.[21] Finally, there must be no objective justification (such as product safety or the reputation of the platform), or counterbalancing efficiencies for the practice.[22] As for now, pending on appeal before the ECJ in the Google Shopping case, there is no need to consider a counterfactual in the context of Article 102 TFEU, that is a hypothetical scenario of how the markets where the alleged abuse took place would have developed had the impugned practice not been adopted.[23]

[17] Friso Bostoen, *Abuse of Platform Power: Leveraging Conduct in Digital Markets under EU Competition Law and Beyond* (Institute of Competition Law 2023) 16.
[18] Pablo Ibanez Colomo, 'Self-Preferencing: Yet Another Epithet in Need of Limiting Principles' (2020) 43(4) World Competition 417, 420-421.
[19] Ahlborn (n 15), 89-90.
[20] Case T-612/17 *Google Shopping* (n 6), paras 442-443. See also Case C-377/20 *Servizio Elettrico Nazionale and Others*, EU:C:2022:379, para 53; Case C-680/20, *Unilever Italia Mkt. Operations*, ECLI:EU:C:2023:33, paras 41-42.
[21] Ibid, para 382.
[22] Ibid, para 551.
[23] Case T-612/17 *Google Shopping* (n 6), paras 442-443; See also: Raffaele Di Giovanni Bezzi, 'Anticompetitive Effects and Allocation of the Burden of Proof in Article 102 Cases: Lessons from the Google Shopping Case' (2022) 13(2) Journal of European Competition Law & Practice 112, 119-120; Pablo Ibáñez Colomo, 'Indispensability and Abuse of Dominance: From Commercial Solvents to Slovak Telekom and Google Shopping' (2019) 10(9) Journal of European Competition Law & Practice 532, 546.

C. Hosting rivals

Based on the above definitions, the crux of the issue that arises in connection with self-preferencing is that digital platforms do not act as pure intermediaries. They not only provide match-making services by hosting third parties and allowing them to use platforms as a distribution channel, but they also offer their own vertically/horizontally related or ancillary services in competition with the products/services provided by the hosted third parties. Hosting third parties that offer complementary services may benefit the host as it allows innovations of third parties to be present and thereby enhances the platform's value in the eyes of users.[24] Inviting third parties may generate significant learning and network effects that help platforms grow.[25] Some commentators argue that opening up an infrastructure can be a rational business decision even if the host's products/services compete with those of complementors.[26]

As shown by Nobel Prize-winner Ronald Coase the decision of firms whether to transact with third parties or to integrate depends on a cost-benefit analysis.[27] Digital ecosystems seem to have found a solution that brings together the best of both worlds of transacting and outsourcing. They seem to have inverted the traditional notion of a firm that turns input into output internally to an entity where value creation happens at least in part externally by complementors.[28] In light of these developments regarding the 'nature of the firm' economics,[29] industrial organisation

[24] Kevin Boudreau, 'Open platform strategies and innovation: Granting access vs. devolving control' (2010) 56(10) Management Science 1849, 1851.
[25] David S. Evans and Richard Schmalensee, 'Failure to Launch: Critical Mass in Platform Businesses' (2010) 9(4) Review of Network Economics 1, 2.
[26] Andrei Hagiu, Bruno Jullien, and Julian Wright, 'Creating platforms by hosting rivals' (2018) No.18-970 TSE Working Paper 5.
[27] Ronald H. Coase, 'The Nature of the Firm', (1937) 4(16) Economica 386, 392.
[28] Geoffrey Parker, Marshall Van Alstyne, Xiaoyue Jiang, 'Platform Ecosystems: How Developers Invert the Firm' (2016) Boston University Questrom School of Business Research Paper No. 2861574 <https://ssrn.com/abstract=2861574> accessed 17 October 2023 6-7.
[29] See Andrei Hagiu, Tat-How Teh and Julian Wright, 'Should platforms be allowed to sell on their own marketplaces?' (2022) 53(2) RAND Journal of Economics 297, 319-320.

literature,[30] and empirical research[31] also suggest that entry into complementors' space – in the above-described context – may be problematic, but it is not in itself questionable as these practices may increase competition, innovation, and consumer welfare.

D. Self-preferencing as normal course of business

Favouring one's products and services is a widespread phenomenon not only in the digital but also in the brick-and-mortar world. It covers a wide range of practices that are commonly accepted as legitimate means of conducting business.[32] Even in the case of dominant online platforms with significant market power – enabling them to act independently from competitors and customers – the pro-consumer, pro-competitive effects of self-preferencing are recognized in the literature potentially leading to improvements in static efficiency and the elimination of double marginalisation.[33] The non-horizontal merger guidelines for instance also explicitly mention that the integration of different complementary activities may increase competition and produce significant efficiencies.[34] Thus, discriminating against third parties is often an integral and necessary part of both vertical and conglomerate mergers.[35]

In light of the above, self-preferencing, in many cases is not an abnormal, but an essential element of competition. Consequently, even dominant firms with significant market power, subject to the rules enshrined in Article 102 TFEU, are generally not under the duty to treat

[30] Patrice Bougette, Axel Gautier and Frédéric Marty, 'Business Models and Incentives: For an Effects-Based Approach of Self-Preferencing?' (2022) 13(2) Journal of European Competition Law & Practice 136, 138.
[31] Jens Foerderer, Thomas Kude, Sunil Mithas and Armin Heinzl, 'Does Platform Owner's Entry Crowd Out Innovation? Evidence From Google Photos' (2018) 29(2) Information Systems Research 444, 444-446.
[32] Aurelien Portuese, '"Please, Help Yourself": Toward a Taxonomy of Self-Preferencing' (Information Technology and Innovation Foundation 2021) <https://itif.org/publications/2021/10/25/please-help-yourself-toward-taxonomy-self-preferencing/> accessed 17 October 2023 3-8.
[33] EU Commission, 'Expert Group for the Observatory on the Online Platform Economy, Work stream on Differentiated treatment' (Progress Report 2020) 24.
[34] Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings, [2008] OJ C 265/07, para 13.
[35] Thomas Graf and Henry Mostyn, 'Do We Need to Regulate Equal Treatment? The Google Shopping Case and the Implications of its Equal Treatment Principle for New Legislative Initiatives' (2020) 11(10) Journal of European Competition Law & Practice 561, 572.

their rivals equally or not to discriminate against them.[36] Nor they are generally required to subsidize their rivals or to create a level playing field.[37] Thus, competition, a pillar of every free-market economy entails in its very essence discriminating against rivals in an endless race for growing output, market shares, revenues, and/or profits even when employed by undertakings with significant market power.

E. Previous case law on favouring without any finding of an abuse

In line with the above, inquiries into self-preferencing practices have led to diverging outcomes. Most notably, the High Court of England and Wales, while accepting that self-preferencing may amount to an abuse, did not condemn the practices of Google at hand involving the introduction of a new Google Maps function in Google Search in the absence of anti-competitive effects and accepting that the impugned conduct was objectively justified.[38] Similarly, the Amsterdam District Court concluded that Funda, a Dutch online real estate platform, did not abuse its dominance by applying more favourable treatment to its own subsidiary NVM on its online real estate platform as alleged by the claimant.[39]

On the other side of the Atlantic, in the United States, the Federal Trade Commission closed its investigation of Google's self-preferencing practices accepting that the conduct was a legitimate product improvement.[40] Finally, in Germany, the District Court of Hamburg

[36] Pablo Ibanez Colomo, 'Exclusionary Discrimination under article 102 TFEU' (2014) 51(1) World Competition 141, 151-155.
[37] Colomo (n 18), 419.
[38] *Streetmap v Google* [2016] EWHC 253 (Ch), paras 60, 92-141, and 142-176. Para 60 explicitly states that 'I see no reason, as a matter of principle, why the preferential promotion by a dominant company, by means of its power on the market where it is dominant, of its separate product on a distinct market where it is not dominant, may not constitute an abuse if that has the effect of strengthening its position on that other market and is not otherwise objectively justified.'
[39] *VBO Broker v Funda B.V.*, ECLI:NL:RBAMS:2018:1654, para 2.13.
[40] Statement of the Federal Trade Commission Regarding Google's Search Practices In the Matter of Google Inc. <https://www.ftc.gov/sites/default/files/documents/public_statements/statement-commission-regarding-googles-search-practices/130103brillgooglesearchstmt.pdf> accessed 17 October 2023.

similarly refused to hold that the introduction of the 'weather' label in Google Search was abusive.[41]

F. Self-preferencing with potential anti-competitive effects

However, there may be instances where self-preferencing has adverse effects on competition. The theory of harm behind self-preferencing is essentially input foreclosure leading to raising the cost of rivals.[42] These strategies have been condemned under Article 102 TFEU since the advent of the discipline.[43] Early judgments of the ECJ – such as *Commercial Solvents*[44] refusing to supply a raw material necessary for the production of a derivative product and *Télémarketing*[45] accepting television advertisements only through its own agent and thereby reserving for itself an ancillary market – stand for examples of vertically integrated firms' exclusionary conduct to favour their downstream services.

More specifically, various former European Commission (EC) decisions and judgments of the ECJ refer to dominant companies, with significant market power, sometimes operators of

[41] *Verband against Google*, 408 HKO 36/13, 04/04/2013.
[42] Renato Nazzini, 'Unequal Treatment by Online Platforms: A Structured Approach to the Abuse Test in Google' in Damien Gerard, Massimo Merola and Bernd Meyring (eds), *The Notion of Restriction of Competition: Revisiting the Foundations of Antitrust Enforcement in Europe*, (Bruylant 2017) 281-308.
[43] Colomo (n 18), 418.
[44] Joined Cases 6 and 7/73 *Istituto Chemioterapico Italiano and Commercial Solvents v Commission* [1974] ECR 00223, para 25: 'an undertaking being in a dominant position as regards the production of raw material and therefore able to control the supply to manufacturers of derivatives, cannot, just because it decides to start manufacturing these derivatives (In competition with its former customers) act in such a way as to eliminate their competition which in the case in question ,would amount to eliminating one of the principal manufacturers of ethambutol in the Common Market. Since such conduct is contrary to the objectives expressed in Article 3 (f) of the Treaty and set out in greater detail in Articles 85 and 86, it follows that an undertaking which has a dominant position in the market in raw materials and which, with the object of reserving such raw material for manufacturing its own derivatives, refuses to supply a customer, which is itself a manufacturer of these derivatives, and therefore risks eliminating all competition on the part of this customer, is abusing its dominant position within the meaning of Article86'.
[45] Case 311/84 *CBEM v CLT and IPB (Télémarketing)*, [1985] ECR 03261, para 27: 'an abuse within the meaning of Article 86 is committed where, without any objective necessity, an undertaking holding a dominant position on a particular market reserves to itself or to an undertaking belonging to the same group an ancillary activity which might be carried out by another undertaking as part of its activities on a neighbouring but separate market, with the possibility of eliminating all competition from such undertaking'.

essential facilities, favouring in other ways their own downstream or neighbouring activities. For instance, the *Stena Sealink/B&I – Holyhead*, *GT-Link*, *Irish Sugar*, and *Deutsche Bahn* cases provide such examples. What all these cases have in common is that the concern is at least partially related to dominant firms favouring their affiliates. In the *Stena Sealink/B&I – Holyhead* case the Commission took issue with Stena granting competitors access on less favourable conditions as compared to its own services.[46] Likewise, *GT-Link*, a public company operating a port waived the duties on its own ferry services.[47] The issue in the *Irish Sugar* case was that the company granted discriminatory rebates to customers depending on whether they competed with it on the downstream retail sugar market.[48] Lastly, *Deutsche Bahn* applied more favourable tariffs on railway transport to its subsidiary Transfacht.[49]

In digital services, the first precedent implicitly condemning self-favouring was the *Microsoft* case, where the General Court (GC) stipulated that it cannot be considered competition on the merits if a product's success – such as the Media Player in that case – hinges solely on a dominant position held on another market.[50] This may thwart competition as it could hinder the development of better and more innovative products of smaller rivals'. Moreover, in such cases,

[46] *Stena Sealink/B&I – Holyhead: Interim Measures* (AT.34.174) Commission Decision 94/19/EC [1994] OJ L18/8, para 41.

[47] Case C-242/95 *GT-Link v De Danske Statsbaner* [1997] ECR I-04449, para 41: 'The fact that a public undertaking which owns and operates a commercial port waives those duties on its own ferry services and reciprocally on those of some of its trading partners is likewise capable of constituting an abuse, in so far as with regard to the public undertaking's other trading partners it involves application of dissimilar conditions to equivalent transactions, within the meaning of Article 86(c)'.

[48] Case T-228/97 *Irish Sugar v Commission* [1999] ECR II-02969, paras 162-163. Para 162 holds that 'the grant of discriminatory price rebates to the applicant's customers on the industrial sugar market as from 1993, depending on whether or not those customers competed with the applicant on the retail sugar market, has been sufficiently established in fact and in law in the contested decision'. Para 163 continues that '[n]or can the applicant claim that such pricing is not an abuse within the meaning of Article 86 and, more particularly, Article 86(c)'.

[49] Case T-229/94 *Deutsche Bahn v Commission* [1997] ECR II-01689, para 93: 'the Commission has adduced sufficient evidence to substantiate its conclusions concerning DB's conduct and that it has proved to the requisite legal standard that, by its conduct, DB imposed dissimilar conditions for equivalent services, thus placing the other parties operating on the western journeys at a disadvantage in competition with itself and its subsidiary Transfracht'. Upheld on appeal in case C-436/97 P *Deutsche Bahn v Commission* [1999] ECR I-02387.

[50] Case T-201/04 *Microsoft v Commission* [2007] ECR II-03601, paras 1038-1040 and 1047. In particular, para 1047 states that 'the bundling prevents developers of third-party media players from competing with Microsoft for that purpose on the intrinsic merits of the products'.

there is a risk that not the products of superior quality will thrive but inferior ones due to an incumbency advantage held in another market.[51] The most explicit and far-reaching application of the above pieces of the jigsaw puzzle culminated in the *Google Shopping* decision of the EC stretching the boundaries of Article 102 TFEU.[52] The GC, which largely upheld the EC's decision, confirmed that algorithmic bias resulting in the prominent placement and display of Google Shopping in its general search results page alongside the demotion of rival comparison-shopping services was abusive.[53]

G. Factors pointing toward an effects-based analysis

To conclude on these points the multi-faceted nature of self-preferencing, its close connection to vertical integration, conglomerate synergies, and product design suggests – from a substantive law perspective – that this type of conduct is a better candidate for a case-by-case effects-based approach. An effects-based assessment of self-preferencing under Article 102 TFEU would create relative coherence with the case law of Article 101 TFEU as well which holds that only practices that are almost always or invariably harmful to competition shall be considered as 'by object' infringements.[54] The 'more-economic approach' to Article 102 TFEU also strongly supports the view to assess the likely effects of conduct on competition in light of all relevant circumstances.[55] The state-of-the-art economics and industrial organisation literature – albeit sparse and relatively nascent – also takes the position that entry by platforms into complementors' space and self-preferencing, in particular, may but does not necessarily

[51] Ibid, para 1039: 'no third-party media player could achieve such a level of market penetration without having the advantage in terms of distribution that Windows Media Player enjoys as a result of Microsoft's use of its Windows client PC operating system'.
[52] *Google Search (Shopping)* (AT.39740) Commission decision [2008] OJ C 9/11.
[53] Case T-612/17 *Google Shopping* (n 6).
[54] Case C-307/18 *Generics*, ECLI:EU:C:2020:52; Case C-228/18 *Budapest Bank*, ECLI:EU:C:2020:265.
[55] Communication from the Commission — Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings [2009] OJ C 45/2, point 5. See also Case C-209/10 *Post Danmark*, EU:C:2012:172; Case C-413/14 P *Intel v Commission*, EU:C:2017:632, paras 138-139.

harm consumers.[56] Empirical literature analysing the effects of these strategies also seems to support this view.[57]

III. Self-preferencing in the taxonomy of abuses under Article 102 TFEU

Many established types of abuses contain both leveraging and discriminatory elements that are also present in the case of self-preferencing. Nevertheless, diversification of activities or entry into adjacent markets even if it results in a dominant position in those markets is not, in itself, abusive.[58] The extension of market power can happen via various practices that may be abusive, but not necessarily.[59] It may be the result of fierce competition on the merits inter alia due to a superior product or a more innovative distribution method. However, various judgments refer to leveraging as part of assessing the legality of various abusive conduct.[60] For instance, leveraging has been a concern in refusal to supply,[61] margin squeeze,[62] and tying cases.[63]

[56] Jorge Padilla, Joe Perkins, Salvatore Piccolo, 'Self-Preferencing in Markets with Vertically Integrated Gatekeeper Platforms' (2022) 70(2) The Journal of Industrial Economics 371, 390; Nicholas Economides, 'The Incentive for Non-Price Discrimination by an Input Monopolist' (1998) 16(3) International Journal of Industrial Organisation 271, 279; Cf. Joint Research Centre (n 1) 13.
[57] Feng Zhu, 'Friends or Foes? Examining Platform Owners' Entry into Complementors' Spaces' (2019) 28(1) Journal of Economics & Management Strategy 23, 27.
[58] Case T-612/17 *Google Shopping* (n 6), para 164: 'while the leveraging practices of a dominant undertaking are not prohibited as such by Article 102 TFEU, the fact remains that that article is applicable to such practices'.
[59] Case C-12/03 P *Commission v Tetra Laval* [2005] ECR I-00987, paras 54 and 74.
[60] Cristina Caffarra, 'Google Shopping: A Shot in the Arm for the EC's Enforcement Effort, but How Much Will It Matter?' (2021) N°104053 e-Competitions Big Tech & Dominance 1.
[61] Case 311/84 *Télémarketing* (n 45), para 27; Case T-201/04 Microsoft (n 50), para 1344: 'the two abuses at issue form part of a leveraging infringement, consisting in Microsoft's use of its dominant position on the client PC operating systems market to extend that dominant position to two adjacent markets, namely the market for work group server operating systems and the market for streaming media players'.
[62] Case C-52/09 *TeliaSonera Sverige* (n 4), para 85: 'certain conduct on markets other than the dominated markets and having effects either on the dominated markets or on the non-dominated markets themselves can be categorised as abusive'.
[63] Case C-333/94 P *Tetra Pak v Commission* [1996] ECR I-05951, para 25: 'the Community judicature found certain conduct on markets other than the dominated markets and having effects on the dominated markets to be abusive'; Case T-201/04 Microsoft (n 50), para 1344.

In a similar vein, discrimination against rivals is deeply embedded in competition. The pro-competitive and welfare-enhancing effects of discrimination are widely recognized in the antitrust and economics literature.[64] Yet, many well-established abuses contain discriminatory elements. Rebates, bonus schemes, selective price cuts, exclusivity agreements, tying, along with bundling can equally be seen as a form of discrimination.[65] Refusal to supply and margin squeeze can also involve discrimination.[66] But, just as leveraging, discrimination is not in itself abusive. In line with this, the ECJ's judgment delivered in *MEO* holds that discrimination resulting in a competitive disadvantage cannot be equated with anti-competitive effects and, thus, not in itself abusive.[67]

A. A gap in the law in non-price discrimination by hybrid platforms

In light of the above, various abuses seem to cover practices that are similar to self-preferencing.[68] Refusal to deal may be considered the most extreme manifestation of self-preferencing.[69] It generally captures practices where access to an input is denied for third parties. Tying as shown by the *Microsoft*[70] or *Google Android*[71] cases can also give a competitive advantage to certain applications such as the Media Player, Internet Explorer, or the Google Chrome browser. Margin squeeze, in essence, also concerns the favouring of a vertically integrated company's downstream activity vis-à-vis rivals in terms of pricing.[72] And finally, discrimination under Article 102(c) may result in the favouring of the firms' downstream activities as cases such as the above-discussed *GT-Link*, *Irish Sugar*, and *Deutsche*

[64] Robert O'Donoghue KC and Jorge Padilla, *The Law and Economics of Article 102 TFEU* (3rd edn, Hart Publishing 2020) 962–967.
[65] Ibid. 956 footnote 3.
[66] Lena Hornkohl, 'Article 102 TFEU, Equal Treatment and Discrimination after Google Shopping' (2022) 13(2) Journal of European Competition Law & Practice 99, 104.
[67] Case C-525/16 *MEO*, ECLI:EU:C:2018:270, paras 26-27.
[68] OECD (n 1), 54.
[69] Robert O'Donoghue KC and Jorge Padilla (n 64), 1092.
[70] Case T-201/04 *Microsoft* (n 50), para 1038 and 1054.
[71] Case T-604/18 *Google Android*, ECLI:EU:T:2022:541, para 331 and 333.
[72] Robert O'Donoghue KC and Jorge Padilla (n 64), 956 footnote 3

Bahn cases show.[73] Perhaps that is the reason why commentators categorized Google's practices in the *Google Shopping* case as tying,[74] refusal to deal,[75] or margin squeeze.[76]

However, arguably none of the established types of abuses seem to fully capture the heart of the issue with self-preferencing. Tying, amongst others, requires the existence of two separate products that is not necessarily met in digital cases such as the *Google Shopping* case. Refusal to deal presupposes a request and a subsequent (outright or implicit) refusal, which again is not necessarily met in the case of self-preferencing primarily taking issue with the conditions of access and not access as such. Various pricing abuses such as margin squeeze, rebates, or selective price cuts would also be an awkward fit for a non-price-based conduct covered by self-preferencing. Lastly, discrimination under Article 102(c) TFEU, as academics argue, shall be concerned with exploitation and in particular discrimination between non-affiliated trading partners or customers (secondary-line discrimination) instead of exclusionary primary-line discrimination i.e., discrimination targeting rivals vis-à-vis the dominant company itself.[77] Moreover, in the context of Article 102(c) TFEU it is equally questionable whether ranking in search or on a marketplace constitutes a 'transaction', a precondition for the application of Article 102(c) TFEU.[78]

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[73] Case C-242/95 *GT-Link* (n 47), para 41; Case T-228/97 *Irish Sugar* (n 48), para 162-163; Case T-229/94 Deutsche Bahn v Commission (n 49), para 93, upheld on appeal in case C-436/97 P *Deutsche Bahn* (n 49), para 10.

[74] Edward Iacobucci & Francesco Ducci, 'The Google Search Case in Europe: Tying and the Single Monopoly Profit Theorem in Two-Sided Markets' (2018) 47(1) European Journal of Law and Economics 15, 16; Benjamin Edelmanm, 'Does Google Leverage Market Power Through Tying and Bundling?' (2015) 11(2) Journal of Competition Law & Economics 365, 369.

[75] Bo Vesterdorf, 'Theories of Self-Preferencing and Duty to Deal – Two Sides of the Same Coin' (2015) 1(1) Competition Law & Policy Debate 4, 6; Niamh Dunne, 'Dispensing with Indispensability' (2020) 16(1) Journal of Competition Law & Economics 74, 99-100.

[76] Friso Bostoen, 'Online Platforms and Vertical Integration: The Return of Margin Squeeze?' (2018) 6(3) Journal of Antitrust Enforcement 355, 372, and 377.

[77] Renato Nazzini, 'Google and the (Ever-Stretching) Boundaries of Article 102 TFEU' (2015) 6 Journal of European Competition Law & Practice 301, 308; Damien Geradin and Nicolas Petit, 'Price Discrimination under EC Competition Law – Another Doctrine in Search of Limiting Principles?' (2006) 2(3) Journal of Competition Law and Economics 479, 487.

[78] Pinar Akman, 'The Theory of Abuse in Google Search: A Positive and Normative Assessment Under EU Competition Law' (2017) 2 Journal of Law, Technology and Policy 301, 330.

In light of the foregoing, there may be a gap in the law in the area of exclusionary non-price discrimination by hybrid digital platforms under 102 TFEU.[79] Most notably, a vacuum persists when it comes to more subtle forms of discrimination other than refusals to deal.[80] But a very broad, one-size-fits-all leveraging abuse – as proposed by the EC in the *Google Shopping* decision – may be contrary to the established jurisprudence, and would have overcompensated for this gap.[81] Condemning leveraging as such would arguably go against beneficial vertical integration and conglomerate diversification as well. This approach would be undesirable as it would hinder innovation, the emergence of new business models, and deprive undertakings of cost-savings as a result of vertical integration of diversification. It would also deprive dominant undertakings from conducting business in a pro-competitive manner. Thus, from an error-cost perspective prohibiting leveraging as such would likely lead to costly false positives and condemning pro-competitive product improvement such as offering new complementary services in a one-stop-shop interface.[82] A narrowly crafted self-preferencing abuse seems to better address this gap. However, in any event, it is not necessary to place self-preferencing into either subcategory of abuses as the list contained in Article 102 TFEU is not exhaustive.[83] Practices need not be placed within any subcategory of abuses as that list does not exhaust the methods of abusing a dominant position.[84] Consequently, practices can be condemned under the general notion of abuse.[85]

[79] Friso Bostoen, 'The General Court's Google Shopping Judgment Finetuning the Legal Qualifications and Tests for Platform Abuse' (2022) 13(2) Journal of European Competition Law & Practice 75, 77.
[80] Colomo (n 36), 151-155.
[81] *Google Search (Shopping)* (AT.39740) (n 52), para 649.
[82] Ahlborn (n 15), 95.
[83] Case C-6/72 *Europemballage Corporation and Continental Can Company v Commission* [1973] ECR 00215, para 26.
[84] Case C-280/08 P *Deutsche Telekom v Commission*, ECLI:EU:C:2010:603, para 173.
[85] C-457/10 P *AstraZeneca v Commisson*, ECLI:EU:C:2012:770, paras 74-75.

B. The legal test applicable to self-preferencing under Article 102 TFEU

The next question to be addressed is whether self-preferencing fits well into the taxonomy of the already established types of abuses in terms of the legal test applicable to it. Legal categorization and qualification determine the applicable legal tests and determine who bears the burden of proving an infringement.[86] Perhaps the most controversial part of the General Court's *Google Shopping* judgment is the rejection of the *Bronner* criteria as a relevant part of the legal test when assessing the legality of self-preferencing. The *Bronner* criteria require proof on the part of private claimants or public enforcers that first, the product or service to which access is sought (and refused) is indispensable for the access seeker to carry out a certain activity, second, the refusal likely eliminates effective downstream competition, and third, based on evidence adduced by the undertaking accused that the conduct cannot be objectively justified.[87]

This point is a subject of substantial divergence of opinions within the academic literature. At one end of the spectrum, scholars argued that self-preferencing is not abusive at all under Article 102 TFEU, unless the *Bronner* criteria, including indispensability of the input to which access is sought, is met.[88] Others argued that self-preferencing should be assessed on a case-by-case basis based on the effects of the impugned conduct on competition.[89] Others proposed that self-preferencing should be prohibited in cases where the platform amounts to an essential facility.[90] In scenarios other than those relating to where the platform is an essential facility, they argued

[86] Bostoen (n 79), 75.
[87] Case C-7/97 *Bronner* (n 5), para 41.
[88] Akman (n 78), 302; Meredith Pickford, 'In Defence of Competition Law: Addressing the European Commission's Proposals for Ex Ante Regulation of Online Platforms, Including in Particular Prohibiting Self-Preferencing by Search Platforms' <https://files.monckton.com/wp-content/uploads/2020/11/Paper-on-EU-Proposals-for-Ex-Ante-Regulation-of-Digital-Platforms.pdf> accessed 17 October 2023 25; Nazzini (n 77), 309; Colomo (n 36), 141-163.
[89] Patrice Bougette, Axel Gautier and Frédéric Marty, 'Business Models and Incentives: For an Effects-Based Approach of Self-Preferencing?' (2022) 13(2) Journal of European Competition Law & Practice 136, 138.
[90] European Commission (n 1) 66-67.

that the burden of proving an infringement shall be reversed.[91] That said, the burden of proving that the conduct does not have anti-competitive effects shall lie with the undertaking. At the other end of the spectrum, scholars argued that self-preferencing shall be prohibited *per se* irrespective of anti-competitive effects.[92]

C. Self-preferencing compared to refusal to supply in terms of the logic underpinning the respective legal tests

The analysis of the different types of abuses suggests that self-preferencing is essentially internal discrimination i.e., it encompasses discriminatory practices between the incumbent *itself* and third parties. This sits closely to but cannot be equated with refusal to supply.[93] Consequently, the legal test applicable to outright refusals to deal shall be reserved for a narrow set of factual circumstances where there is a request and a subsequent refusal to a closed, physical infrastructure that is reserved for the owner or operator of such facility. Thus, the *Bronner* criteria to be relevant requires an undertaking to 'transfer an asset or enter into agreements with persons with whom it has not chosen to contract.'[94] In such scenarios, the high standard of indispensability is justified by the potential harm to dynamic competition that arises from forced dealing and the opening up of closed facilities that are reserved for the dominant firm's own use.[95] Moreover, the established principles of EU law on the freedom to conduct business and the right to property including the freedom to conclude contracts and terminate

[91] Ibid.
[92] Joint Research Centre (n 1) 13.
[93] Caffarra (n 60), 3.
[94] Case C-552/03 P *Unilever Bestfoods v Commission* [2006] ECR I-09091, para 137.
[95] Case C-7/97 *Bronner*, ECLI:EU:C:1998:264, Opinion of AG Jacobs, para 57: 'the justification in terms of competition policy for interfering with a dominant undertaking's freedom to contract often requires a careful balancing of conflicting considerations. In the long term it is generally pro-competitive and in the interest of consumers to allow a company to retain *for its own use* facilities which it has developed for the purpose of *its* business' (emphasis added).

dealings with business partners and the right to dispose of one's own property, can also be guaranteed by the high standard of proof that comes with the indispensability criteria.[96]

With respect to self-preferencing, the trade-off seems to be different. Firms are not forced to deal with rivals, they already do so by their own decisions. Moreover, the products in question where self-preferencing concerns may arise seem to be intrinsically open.[97] Thus, self-preferencing addresses situations where at least partially open hybrid digital platforms offering intrinsically open products/services deal with others on unfair terms and conditions. What seems to be a paradox, at first sight, is that self-preferencing seems to impose a stricter obligation in terms of a lower intervention threshold once dominant firms decide to deal with rivals.[98] However, if the ECJ were to follow this argument almost all dealings of dominant undertakings should be subject to the *Bronner* criteria. Indeed, all abuses other than refusals to deal seem not to relate to access to an infrastructure or to a product or a service of a dominant firm, but to terms and conditions of interactions between firms and their customers. Accordingly, tying, rebates, exclusivity contracts and margin squeeze practices could be subject to indispensability. This could, however, seriously undermine the effectiveness of Article 102 TFEU.[99] Perhaps due to this reason, all established abuses are subject to a lower intervention threshold as compared to refusals to deal.[100]

[96] Charter of Fundamental Rights [2012] OJ C 326/319, Arts 16-17.
[97] Case T-612/17 *Google and Alphabet* (n 53), para 177: 'The infrastructure at issue, namely Google's general results pages which generate traffic to other websites, including those of competing comparison shopping services, is, in principle, open, which distinguishes it from other infrastructures referred to in the case-law, consisting of tangible or intangible assets (press distribution systems or intellectual property rights, respectively) whose value depends on the proprietor's ability to retain exclusive use of them'.
[98] Pablo Ibáñez Colomo (n 23), 535.
[99] Case C-165/19 P *Slovak Telekom v Commission*, ECLI:EU:C:2020:678, Opinion of AG Saugmandsgaard Øe, para 55.
[100] Ibid, para 85-86. Para 85 of the Opinion holds that '[o]ne might, *in extremis*, ask whether *any* abusive practice does not in some way constitute an implicit refusal of access, since any disadvantage imposed by a dominant undertaking is liable to discourage potential customers from using the goods and services it offers.' Para 86 continues stating that '[i]t is important to note, however, that the Court has never applied the conditions laid down in *Bronner*, or any equivalent legal criterion, to unfair contract terms'.

This approach i.e., not subjecting the assessment of self-preferencing to the conditions laid down in the *Bronner* judgment may, nevertheless, create incentives for firms not to deal with rivals in the first place. This arguably curtails the development of the novel business models, and monetization strategies pursued by digital platforms. Accordingly, what may be harmful in a purely vertical context may not be harmful in a conglomerate situation taking into account competition between ecosystems.[101] Therefore, one must carefully balance the trade-off between the possible efficiency loss resulting from creating incentives for platforms to follow a closed-ecosystem business model and the awaited possible long-term gain as a result of enhanced inter-platform competition between closed ecosystems.

Nevertheless, the non-application of the *Bronner* criteria fits well with earlier precedents such as *TeliaSonera*[102] holding that the test set out in the *Bronner* judgment is not relevant in margin squeeze cases, and outside the realm of outright refusals to deal. Indeed, the wording of *TeliaSonera* suggests that the non-application of the criteria set out in the *Bronner* case refers not only to margin squeeze but also to other cases where the abuse relates to disadvantageous conditions of supply.[103] Even if self-preferencing is assessed as a form of refusal to deal, not all refusal to deal cases are subject to the same legal test. For instance, constructive or implicit refusals to deal such as those present in the *Commercial Solvents*[104] and *Télémarketing*[105] cases did not explicitly use the term 'essential facilities' and were not explicitly subject to the

[101] See Michael G. Jacobides and Ioannis Lianos, 'Ecosystems and competition law in theory and practice', (2021) 30(5) Industrial and Corporate Change 1199.
[102] Case C-52/09 *TeliaSonera* (n 4), paras 55-58; Cf. C-52/09 *TeliaSonera Sverige*, ECLI:EU:C:2010:483, Opinion of AG Mazák, para 21: 'I consider that if there was no regulatory obligation compatible with EU law on a dominant undertaking to provide an input which is not indispensable then the dominant undertaking should not in principle be charged with a margin squeeze abuse'.
[103] Case C-52/09 *TeliaSonera*, (n 4), para 55: 'it cannot be inferred from paragraphs 48 and 49 of [the Bronner] judgment that the conditions to be met in order to establish that a refusal to supply is abusive must necessarily also apply when assessing the abusive nature of conduct which consists in supplying services or selling goods on conditions which are disadvantageous or on which there might be no purchaser'.
[104] Joined cases 6 and 7/73 *Commercial Solvents* (n 44), para 25.
[105] Case 311/84 *Télémarketing* (n 45), paras 26-27.

indispensability requirement.[106] More recently and notably the ECJ's decision in *Slovak Telekom* confirmed that if a dominant firm provides access but grants that access subject to unfair conditions the Bronner conditions do not apply.[107] These principles have been recently applied by the EFTA Court in its *Telenor* judgment without any regulatory obligation to supply.[108] Lastly, the termination or disruption of ongoing contractual relationships is not evaluated under the same strict legal standard as *de novo* absolute refusals to supply either. This was the subject of the legal dispute that arose in the *Sot. Lélos* case relating to the refusal to meet ordinary orders by GSK with the aim to limit parallel trade.[109]

In light of the above precedents, the logic of the *Google Shopping* judgment seems to be sound. Google is not required to enter into contractual relationships or otherwise deal with any third party. And practices relating to conditional access at least when it comes to pricing are assessed independently from refusals to deal. Nevertheless, the GC went further as compared to the above margin squeeze and implicit refusal to supply precedents that relate to pricing practices. The General Court seems to have crafted another category for exclusionary non-price discrimination. Whether self-preferencing will be another exception to the *Bronner* criteria is now for the ECJ to decide.

D. Coherence across abuses and disciplines

Even though there is no need to fit self-preferencing within any previously established legal category under Article 102 TFEU the different forms of discriminatory and leveraging practices shall be subject to a similar effects-based assessment tailored to the specific theories of harm.

[106] Pedro Caro de Sousa, 'What Shall We Do About Self-Preferencing?' (2020) 3(2) CPI Antitrust Chronicle June 29, 32.
[107] Case C-165/19 P *Slovak Telekom* (n 4), paras 50-51. Para 50 hols that 'where a dominant undertaking gives access to its infrastructure but makes that access, provision of services or sale of products subject to unfair conditions, the conditions laid down by the Court of Justice in paragraph 41 of the judgment in Bronner do not apply'.
[108] Case E-12/20 *Telenor* [2023] OJ C 29/38.
[109] Case C-478/06 *Sot Lélos kai Sia* [2008] ECR I-07139, paras 34 and 78.

This limits the risk that enforcers and private claimants can strategically exploit the differences or discrepancies between the corresponding legal tests applicable to different abuses tackling essentially the same conduct with the aim of benefitting from a lower intervention threshold.[110]

Moreover, a relatively coherent assessment would not only be needed across different practices covered by Article 102 TFEU but also across different disciplines of competition law, in particular, in relation to the assessment of mergers. For that reason, the logic of assessing foreclosure concerns in the case of conglomerate mergers may provide a useful analytical framework for the assessment of similar concerns in the context of Article 102 TFEU.[111] This suggests that the analytical framework for assessing self-preferencing shall consist of assessing the ability and incentive to foreclose along with the assessment of likely overall effects on competition.[112] In view of that, concerns about input foreclosure mainly arise when rivals do not have alternative sources to the input to which access is sought, pursuing foreclosure is profitable for the platform, or when rivals cannot develop effective counterstrategies.[113]

IV. Conclusion

To conclude, this paper first addressed the question of how to define the substantive reach, and scope of application of algorithmic bias taking the form of self-preferencing under Article 102 TFEU whereby vertically or horizontally integrated digital platforms with a significant market power favour their own products or services as compared to rivals' products or services offered on their platforms. The widespread use of different self-preferencing practices, their close

[110] Christian Ahlborn, William Leslie and Eoin O'Reilly, 'Self-Preferencing: Between and Rock and a Hard Place' (2020) 3(2) CPI Antitrust Chronicle June 7, 12; See also Pablo Ibanez Colomo (n 36), 141, 160.
[111] Peter Alexiadis and Alexandre de Streel, 'Designing an EU Intervention Standard for Digital Platforms' (2020) European University Institute Working Paper RSCAS 2020/14, 26 <https://cadmus.eui.eu/handle/1814/66307> accessed 17 October 2023.
[112] Non-horizontal merger guidelines (n 34), paras 31-57, 95-118; See also Case C-12/03 P *Commission v Tetra Laval* (n 59), para 159.
[113] Ibid, paras 34, and 39-40.

connection to vertical integration, and the diversification of activities suggest that self-preferencing can equally be an intrinsic part of 'competition on the merits' as well as leading to anti-competitive (algorithmic) foreclosure. These factors along with the ambiguous effects of these practices on competition make a strong case for a case-by-case effects-based assessment instead of a blanket prohibition. From a substantive law point of view practices that do not invariably harm competition but rather produce ambiguous effects were considered more suitable for a case-by-case, effects-based approach taken under Article 102 TFEU as compared to the outright *per se* prohibition. Moreover, as a result of the potentially broad scope of application of self-preferencing, there may be a need for clearer limiting principles so that self-preferencing applies only to a narrow set of factual circumstances. These limiting circumstances may include the partially open business model or the intrinsically open nature of the products in question.

The next questions posed were, whether it makes sense to establish self-preferencing as a *sui generis* abuse taking issue with algorithmic foreclosure of dominant digital platforms, and how to deal with it in terms of the legal test applicable to assessing whether it constitutes an abuse or competition on merits. The analysis of different types of potentially abusive practices shows that none of the established abuses seem to fully tackle the concerns posed by self-preferencing. Pricing abuses would certainly be an awkward fit for a non-price abuse, and the established non-price abuses for one or more reasons do not perfectly fit with the heart of the issues posed by self-preferencing practices. Consequently, self-preferencing as a new type of abusive behaviour may fill a gap in the law of Article 102 TFEU in the area of internal non-price exclusionary discrimination. In any case, the case law suggests there is no need to precisely place self-preferencing under any subparagraphs of Article 102 TFEU.

Coherence across different types of abuses as well as across the disciplines of competition law are, however, needed in order to avoid stakeholders being able to strategically exploit the overlap between different types of abuses, and the different legal standards applicable to closely related practices. In line with the evidence, and effects-based approach taken in previous abuse of dominance cases, the conditions in which self-preferencing by platforms may fall afoul of Article 102 TFEU could consist of *first*, dominance; *second* the operation of an at least partially open infrastructure; *third*, vertical and/or horizontal integration; *fourth*, internal exclusionary non-price discrimination; *fifth* at least potential exclusionary effects; *sixth* causality between conduct and effects; and *seventh* no objective justification or counterbalancing efficiencies.

Moreover, establishing coherence not only within Article 102 TFEU but also in relation to merger control would equally require the assessment of the *incentives* and *ability* of platforms to engage in self-preferencing. Indispensability, however, does not necessarily have to be part of the legal test following the logic of the judgments delivered by ECJ in the *Slovak Telekom*, and *TeliaSonera* cases. The logic underpinning the high legal threshold applicable to refusal to deal cases does not seem to be present in the case of self-preferencing relating to non-discriminatory conditions of access to an already open infrastructure. These criteria laid down in the *Bronner* judgment can, thus, be reserved for exceptional circumstances where a closed platform is forced to deal with third parties. Similar considerations, however, i.e., the protection of innovation incentives, and dynamic competition should be considered in light of the continuously developing literature on digital ecosystems,[114] complexity antitrust,[115] and innovation capabilities.[116]

[114] See e.g., Jacobides and Lianos (n 101).
[115] See e.g., Ioannis Lianos, 'Reorienting competition law' (2022) 10(1) Journal of Antitrust Enforcement 1; Cf. Nicolas Petit and Thibault Schrepel, 'Complexity-minded antitrust' (2023) 33 Journal of Evolutionary Economics 541.
[116] See e.g., Nicolas Petit and David J. Teece, *Innovating Big Tech firms and competition policy: favoring dynamic over static competition*, (2021) 30(5) Industrial and Corporate Change 1168.