Article

Google Shopping and the As-Efficient-Competitor Test: Taking Stock and Looking Ahead

Germain Gaudin* and Despoina Mantzari**

I. Introduction

> 'In the third place, as regards the arguments summarised in paragraph 514 above, according to which the Commission failed to demonstrate that competing comparison shopping services that had experienced difficulties were as efficient as Google, when in fact they are not, the Commission is correct in maintaining that it was not required to prove this. The use of the as-efficient-competitor test is warranted in the case of pricing practices (predatory pricing or a margin squeeze, for example), in order, in essence, to assess whether a competitor that is as efficient as the dominant undertaking allegedly responsible for those pricing practices, and which, in order not to be driven immediately from the market, would charge its customers the same prices as those charged by that undertaking, would have to do so at a loss and accentuating that loss, causing it to leave the market in the longer term (see, to that effect, judgment of 6 October 2015, Post Danmark, C-23/14, EU:C:2015:651, paragraphs 53 to 55 and the case-law cited). In the present case, the practices at issue are not pricing practices'.
>
> Case T-612/17, *Google and Alphabet v Commission* [not yet published], para. 538.

Key Points

- The 'as-efficient-competitor' principle and the 'as-efficient-competitor' test should not be conflated, as this can generate a very narrow perspective on the goals EU competition law does and should promote.
- Although the 'as-efficient-competitor' principle remains a fundamental aspect in Article 102 TFEU, the relevance and application of the 'as-efficient-competitor' test in price-based exclusionary conduct has diminished over the years.
- The General Court in *Google Shopping* embraces a categorical distinction between price and non-price based exclusionary conduct and reserves any application of the 'as-efficient-competitor' test to the former category only. We argue that there might be scope to introduce an 'as-efficient-competitor' test as one of the tools for assessing effects in 'self-preferencing' cases.

The abovementioned paragraph of the *Google and Alphabet v Commission* (*Google Shopping*)[1] judgment prompted this contribution because it raises in our view a number of interesting issues regarding both the relevance and the future of the 'as-efficient-competitor' test in exclusionary practices broadly. We shall attempt to explore these here as fully as possible.

The first issue concerns the relationship between the 'as-efficient-competitor' principle (the AEC principle) and the 'as-efficient-competitor' test (the AEC test). The principle seems to be applicable across the board, whereas the test is confined to pricing abuses only; being a direct consequence of the classification between price and non-price exclusionary conduct reflected in the 2009 Commission's Guidance Paper.[2] Google and the Court seem to be talking past each other: Google invoking the AEC principle—which following *Post Danmark I*[3] and *Intel*[4] is considered a fundamental aspect in Article 102 TFEU—whereas the Court referring to the methodological tool of the AEC test. As many

* Professor of Economic Policy, University of Freiburg, Institute of Economics, Freiburg im Breisgau, Germany. E-mail: germain.gaudin@econ.uni-freiburg.de. Gaudin worked for the European Commission (DG Competition) between 2016 and 2019 but was not involved in the *Google Shopping* case. The authors have no other relevant affiliations or relationships to disclose. We would like to thank Andriani Kalintiri and Ioannis Lianos for helpful discussions on this topic.

** Associate Professor in Competition Law and Policy, University College London, Faculty of Laws, London, United Kingdom. E-mail: d.mantzari@ucl.ac.uk.

1 Case T-612/17, *Google and Alphabet v Commission,* EU:T:2021:763.

2 Guidance on the Commission's enforcement priorities in applying Article 82 of the EC to abusive exclusionary conduct by dominant undertakings [2009] OJ C45/7, at para. 24 (Guidance paper). For a discussion see Ioannis Lianos, Valentine Korah and Paolo Siciliani, *Competition Law: Analysis, Cases and Materials* (Oxford, OUP 2019), pp. 889–90.

3 Case C-209/10, *Post Danmark A/S v Konkurrencerådet*, EU:C:2012:172 (*Post Danmark I*).

4 Case C-413/14 P, *Intel Corp v European Commission*, EU:C:2017:632 (Case C-413/14 P, *Intel*). See also Opinion of AG Rantos in Case C-377/20, *Servizio Elettrico Nazionale and Others*, delivered on 9 December 2021, at para. 93.

commentators have noted,[5] the principle and the test should not be conflated, as adopting the mathematical expression of the principle across the board can be reductionist and lead to false negatives. In this spirit, Section II aims to provide a more nuanced account of the AEC principle and its interrelationship with the AEC test as well as an account of the 'status quo' regarding the relevance and appropriateness of the AEC test in price-based exclusionary conduct.

Second and relatedly, the Court endorses the classification put forward by the European.

Commission between price and non-price exclusionary conduct by arguing that the AEC test is not warranted in cases that do not involve pricing practices. This raises a number of questions on the merits of this classification that we explore in Section III. We identify three possible scenarios: (i) retaining the 'status quo' regarding the application of the AEC test for certain price-based exclusionary conduct; (ii) abandoning the AEC test for most of price-based exclusionary conduct; and (iii) introducing the AEC test for certain non-price exclusionary conduct, such as self-preferencing. We focus in particular on the third scenario, as it presents in our view an 'outside the box' perspective on the assessment of non-price based exclusionary conduct that we would like to put forward here. Section IV explores the proposed test, its prospects and limitations, in greater detail. Section V offers some brief concluding remarks.

II. The interrelationship between the AEC principle and the AEC test in exclusionary conduct

This section will attempt to map the boundaries of the AEC principle and the AEC test, by engaging in a close reading of both the Commission's decisions and the EU Courts' rulings in the area. It will be shown that although the AEC principle remains a fundamental aspect in Article 102 TFEU, the relevance and application of the AEC test in price-based exclusionary conduct has diminished over the years.

A. The notion of as-efficient-competitor in relation to pricing conducts

Inspired by the principles of economic efficiency and economic freedom, the AEC principle attempts to draw a line between conduct that reflects competition 'on the merits' and exclusionary conduct that is harmful to consumers. It reflects a generally accepted idea that by protecting less-efficient competitors, there is an unavoidable risk of protecting competitors rather than competition.[6] The principle that a conduct that would exclude as-efficient (or more-efficient) competitors than the dominant firm is abusive has been reflected in the EU case law on predatory pricing since *AKZO*,[7] which states that anticompetitive predation can be presumed if a dominant company sets prices below average variable costs. It is also reflected in *Post Danmark I*[8] and in *Intel*,[9] which both stress that it is not the objective of Article 102 TFEU to protect inefficient competitors, offering higher prices, worse products, and less innovation. It can be argued that the Court's endorsement of the AEC principle in *Post Danmark I*, at least on a broad interpretation, does not limit this principle to price-based conduct only.

Surely Article 102 TFEU does not 'guarantee' the presence of less-efficient competitors on the market, who may be forced to exit as a result of an action on the part of a dominant undertaking. As the Court said in *Intel,* citing *Post Danmark I*:

> '133 [. . .] it must be borne in mind that it is in no way the purpose of Article 102 TFEU to prevent an undertaking from acquiring, on its own merits, the dominant position on a market. Nor does that provision seek to ensure that competitors less efficient than the undertaking with the dominant position should remain on the market (see, inter alia, judgment of 27 March 2012, Post Danmark, C-209/10, EU:C:2012:172, paragraph 21 and the case-law cited)'.
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> '134 Thus, not every exclusionary effect is necessarily detrimental to competition. Competition on the merits may, by definition, lead to the departure from the market or the marginalisation of competitors that are less efficient and so less attractive to consumers from the point of view of, among other things, price, choice, quality or innovation (see, inter alia, judgment of 27 March 2012, Post Danmark, C-209/10, EU:C:2012:172, paragraph 22 and the case-law cited)'.

The AEC principle, however, does not mean that *only* conduct that would exclude as-efficient competitors is abusive. In other words, it should not be understood as giving rise to the proposition that the dominant firm's conduct will *always* be compatible with Article 102 TFEU provided that the only undertakings affected by the conduct are less efficient than the dominant undertaking. Competition law is not merely an instrument for maximising welfare nor should economic efficiency 'be the primary consideration and *telos*'[10] of the EU competition

5 To this effect see Pablo Ibáñez Colomo, 'As efficient competitors in Case T-612/17, Google Shopping: the principle and the conflations' <https://chillingcompetition.com/2021/11/19/as-efficient-competitors-in-case-t%E2%80%91612-17-google-shopping-the-principle-and-the-conflations/> and Makis Komninos 'Concurrentialiste' <https://leconcurrentialiste.com/competition-stories-nov-dec-2021/> both last accessed 17 January 2021.

6 Robert O'Donoghue and Jorge Padilla, *The Law and Economics of Article 102 TFEU* (3rd edn, London, Hart Publishing 2020) 389–393.

7 Case C-62/86, *AKZO Chemie BV v Commission* [1991] ECR 1–3359 (*AKZO*).

8 *Post Danmark I* (n 3), at para. 21 and 22.

9 Case C-413/14 P, *Intel* (n 4), paras. 133 and 134.

law. This would be a very narrow perspective, that does not reflect the variety of goals and values enshrined in both the Treaties and the case law that competition law should promote; such as that of safeguarding the competitive process and protecting the structure of the market,[11] or 'equality of opportunity' as the Court supports in *Google Shopping*.[12] Such perspective also disregards the interests of other 'stakeholders', for example workers in the case of a monopsony, if one adopts a 'polycentric competition law'[13] perspective. But even if one adopts an economic efficiency perspective of consumer welfare, excluding the 'as-efficient competitor' is not always a good proxy for consumer harm. Economic efficiency, as well as consumer welfare, in some circumstances can benefit also from the existence of less-efficient competitors, either in a static sense by the restraint that inefficient rivals may exert on the dominant firm's pricing,[14] or in a dynamic sense where new rivals have the potential, but need time, to reach efficiency.

The AEC principle, as Pablo Ibáñez Colomo highlights, can find many incarnations and can be implemented in a number of ways.[15] The as-efficient-competitor test is just one of them. The AEC test, originating in the United States,[16] focuses on the effects of the conduct: it is deemed exclusionary if it is likely in the circumstances to exclude from the defendant's market an equally or more-efficient competitor. The test is 'particularly apt in relation to price abuses'.[17] As the UK Competition Appeal Tribunal (CAT) put it, in *Royal Mail*[18] it reflects 'an economic implementation of the legal concept of competition on the merits'.[19]

B. The Commission's guidance paper

The 2009 Guidance paper on the Commission's enforcement priorities[20] is rather clear in its support of the AEC test for exclusionary price-based practices. With a view to preventing anticompetitive foreclosure, the Commission 'will normally only intervene where the conduct concerned has already been or is capable of hampering competition from competitors which are considered to be as-efficient-as the dominant undertaking'.[21] The test itself does not constitute a *sufficient* condition for finding an abuse, however: if the Commission does establish exclusion on the basis of an as-efficient-competitor analysis, it will then 'integrate this in the general assessment of anticompetitive foreclosure'.[22] The Guidance also adopts *AKZO*'s price–cost analysis approach in the broader context of price-based conduct, explaining both prongs of the test by reference to, *inter alia*, the exclusionary effect on an as-efficient competitor.[23]

Although the Commission in its Guidance paper gave the impression that the AEC test would take centre stage in the assessment of exclusionary pricing abuses, in practice both the Commission and the EU Courts, as we shall see below, seemed unwilling to do so. In fact, they have both disregarded and downgraded the test's significance, indicating not only that the test is not a *sufficient* condition for finding an abuse but also that it is not a *necessary* condition, at least for some exclusionary pricing conduct.[24] Crucially for our purposes here, the Guidance does not refer to the as-efficient-competitor test in the context of the non-price abuses discussed: exclusive dealing, tying and bundling, and refusal to supply. This omission may either indicate that there is a higher probability of false positives for price-based conducts than for non-price-based conduct, or that the cost of false positives in the context of price-related conduct is higher than the cost of false positives in the context of non-price-based conduct. Indeed, recourse to the AEC test may prove problematic in bundling and tying, for instance, where it is not clear whether a rival that does not produce all the products in the bundle should qualify as equally or less-efficient competitor. However, for margin squeeze,

10 Stavros Makris, 'Applying Normative Theories in EU Competition Law: Exploring Article 102 TFEU' (2014) 3 UCL Journal of Law and Jurisprudence 30; Konstantinos Stylianou and Marios Iacovides, 'The goals of EU Competition Law – a comprehensive empirical investigation' <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3735795> accessed 20 January 2022.

11 See Opinion of AG Kokott in Case C-95/04 P, *British Airways plc v Commission*, delivered on 23 February 2006 contending that Article 102 TFEU, 'is not designed only or primarily to protect the immediate interests of individual competitors or consumers, but to protect the structure of the market and thus competition as such' at para. 23.

12 See *Google Shopping* (n 1), para. 180. To this effect see Opinion of AG Rantos in *Servizio Elettrico Nazionale* (n 4), at para. 106, which seems to take an opposite view.

13 Ioannis Lianos, 'Polycentric Competition Law' (2018) 71(1) Current Legal Problems 161.

14 *Post Danmark A/S v Konkurrencerådet*, EU:C:2015:651 (*Post Danmark II*), at para. 60.

15 See Ibáñez Colomo (n 5).

16 See RA Posner, *Antitrust Law* (Chicago, University of Chicago Press 2001) 195. For a discussion see M Mandorff and J Sahl, 'The Role of the Equally Efficient Competitor in the Assessment of the Abuse of Dominance' (2013) 12 Competition Law Journal 221, 223–226.

17 Ibáñez Colomo (n 5).

18 *Royal Mail v Office of Communications and Whist* [2019] CAT 27 (*Royal Mail*).

19 Ibid., at 497 (3).

20 Guidance Paper (n 2). Prior to the Guidance the Commission issued a discussion paper on the application of Art 82 of the Treaty to exclusionary abuses, 19 December 2005.

21 Ibid., at para. 23.

22 Ibid., at para. 27. The general assessment could include, *inter alia*, the position of the dominant undertaking, the degree of foreclosure (share of the relevant market foreclosed by the conduct), evidence of actual foreclosure and direct evidence of any exclusionary strategy, at para. 20.

23 Ibid., at para. 26. The Commission refines the cost measures used in *AKZO,* substituting average avoidable cost for average variable cost and long-run average incremental cost for average total cost.

24 *Prokent-Tomra* (Case COMP/E-1/38.113) Commission Decision of 29 March 2006; *Post Danmark II* (n 14). See also the discussion below.

a pricing conduct discussed in the Guidance as a variation on refusal to supply,[25] the Commission describes the practice as a pricing scheme, which does not allow an equally-efficient competitor to trade profitably on a lasting basis.[26]

C. The Court's assessment

Following the Commission's adoption of the Guidance Paper in 2009, with its endorsement of the AEC test, the EU Courts have in some instances incorporated it in their assessment of price-based exclusionary conduct. In some judgments the Courts seem to emphasise both the AEC principle and the AEC test, whereas in others they refer to the latter only.

1. Margin squeeze

The AEC test (and principle) gained particular traction in the EU in a series of margin squeeze cases,[27] from where it has spread to become applicable to price-based conduct more generally, as *Post Danmark I*, a selective pricing case, illustrates. The test is put into practice by asking whether the prices charged by the dominant company meet its own costs or, in the case of margin squeeze whether the dominant company's downstream business would be profitable if it had to pay the wholesale price charged by its upstream business.

The first EU margin squeeze case, which involved the endorsement of both the AEC principle and the AEC test was *Deutsche Telekom*.[28] Originating in a 2003 Commission decision, the case was ultimately settled by the Court of Justice of the EU (CJEU) in 2010. In its ruling, the CJUE stated that Art 102 TFEU:

> '... prohibits a dominant undertaking from, inter alia, adopting pricing practices which have an exclusionary effect on its equally efficient actual or potential competitors, that is to say practices which are capable of making market entry very difficult or impossible for such competitors ... thereby strengthening its dominant position by using methods other than those which come within the scope of competition on the merits.'[29]

On the facts of the case the Court considered that the insufficient spread between Deutsche Telekom's wholesale and retail prices was 'capable of having an exclusionary effect on its equally efficient actual or potential competitors'.[30] The Court clearly placed special emphasis on competition by equally-efficient competitors, explaining that:

> '... consumers suffer detriment as a result of the limitation of the choices available to them and, therefore, of the prospect of a longer-term reduction of retail prices as a result of competition exerted by competitors who are at least as efficient in that market'.[31]

The AEC principle is reflected in the Court's finding that margin squeeze is a stand-alone abuse of dominance 'in view of the exclusionary effect that it can create for competitors who are at least as efficient as the [dominant firm]'.[32]

But the Court also endorsed the AEC test by stating that 'in order to assess whether the pricing practices of a dominant undertaking are likely to eliminate a competitor contrary to Article [102 TFEU], it is necessary to adopt a test based on the costs and the strategy of the dominant undertaking itself [...] a dominant undertaking cannot drive from the market undertakings which are perhaps as efficient as the dominant undertaking but which, because of their smaller financial resources, are incapable of withstanding the competition against them'.[33]

In 2011, the Court of Justice was again called upon to rule on margin squeeze, in *TeliaSonera,* a preliminary reference from the Stockholm City Court,[34] where the CJEU confirmed margin squeeze as a stand-alone abuse of dominance. As in *Deutsche Telekom*, the Court established a connection between the AEC principle and competition on the merits:

> 'If [the dominant firm] would have been unable to offer its retail services otherwise than at a loss, that would mean that competitors who might be excluded by the application of the pricing practice in question could not be considered to be less efficient than the dominant undertaking and, consequently, that the risk of their exclusion was due to distorted competition. Such competition would not be based solely on the respective merits of the undertakings concerned'.[35]

Finally, the Court also put forward the principle as a simplifying tool for establishing the anticompetitive effects of the conduct. Noting that the very existence of a margin squeeze cannot constitute an abuse, but that it is

25 Guidance Paper (n 2), at para. 80.
26 Ibid.
27 Case C-280/08 P*, Deutsche Telekom v Commission*, EU:C:2010:603 (*Deutsche Telekom*); C-52/09, *Konkurrensverket v. TeliaSonera Sverige*, EU:C:2011:83 (*TeliaSonera*); Case T-336/07, *Telefónica and Telefónica de España v Commission*, EU:T:2012:172; Case C-165/19 P, *Slovak Telekom v Commission*, EU:C:2021:239 (*Slovak Telekom*).
28 *Deutsche Telekom* (n 27).
29 Ibid., at para. 177.
30 Ibid., at para. 178.
31 Ibid., at para. 182.
32 Ibid., at para 182.
33 Ibid., at paras 198–9.
34 *TeliaSonera* (n 27).
35 Ibid., at para. 43.

also necessary to demonstrate an anticompetitive effect in the particular circumstances of the case at hand, it stated that: '. . . the effect does not necessarily have to be concrete, and it is sufficient to demonstrate that there is an anticompetitive effect which may potentially exclude competitors who are at least as efficient as the dominant undertaking'.[36]

2. Conditional rebates and selective pricing

In *Tomra*,[37] which was the first conditional rebates case in which the CJEU ruled on substance following the Guidance Paper, the Court considered the Guidance to be of no relevance to the legal assessment of the contested decision since it post-dated the Commission's decision in that case,[38] and thus rejected the relevance of a price–cost test in the context of rebates.

However, in *Post Danmark I*, the CJEU took several steps to endorse the AEC principle, this time, more broadly than ever before.[39] Against that backdrop, the Court considered that selective pricing, or price discrimination, cannot of itself amount to an exclusionary abuse.[40] The Court further affirmed the AEC test, as it went on to state that some of the prices concerned in the case were above Post Danmark's average total cost and, as such, 'cannot be considered [to] have anticompetitive effects'.[41]

But then in *Post Danmark II*, the Court held that in the context of conditional rebate practices pricing below cost is not a prerequisite of a finding of an abuse, albeit it might be one tool 'amongst others'.[42] In other words, the Court refused to consider necessary to perform a price–cost test in order to determine if the excluded competitors where as efficient as the dominant undertakings. Does this mean that the AEC test is outright rejected by the CJEU? Apparently not, as the Court states that its conclusion with regard to the relevance of the test in this case 'ought not to have the effect of excluding, on principle, recourse to the as-efficient-competitor test in cases involving a rebate scheme for the purposes of examining its compatibility with Article [102 TFEU].[43] It is the facts of the specific case, in which the dominant undertaking has a very large market share and benefitted from structural advantages and the scope of the rebate scheme that led the CJEU to conclude that 'the as-efficient-competitor test is of no relevance inasmuch as the structure of the market makes the emergence of an as-efficient competitor practically impossible'.[44]

Equally the Commission has also sent contradictory signals: In *Intel* it significantly downgraded the test for rebates set out in the Guidance Paper, stating that the Guidance Paper reflects the enforcement priorities and does not constitute a normative basis on which anticompetitive foreclosure concerns could be excluded.[45] The Commission held that the rebates in issue were by their very nature capable of restricting competition so that an AEC test was not necessary in order to find an abuse of a dominant position, but nevertheless carried out a very detailed analysis of the AEC test, which led it to conclude that this supported the finding that the rebates were exclusionary.[46] On appeal to the General Court (GC), Intel argued that the Commission's analysis of the AEC test was flawed. The GC held that it was not necessary to consider whether the Commission had carried out the AEC test correctly.[47] The Grand Chamber of the CJEU allowed Intel's appeal and confirmed the AEC principle in that it is not the objective of Article 102 TFEU to protect inefficient competitors.[48] Second, the Court held that, 'where the dominant undertaking submits during the administrative procedure, on the basis of supporting evidence, that its conduct was not capable of restricting competition and, in particular, of producing the alleged foreclosure effects', the Commission must assess whether the rebate scheme was part of a 'strategy aiming to exclude competitors that are at least as efficient as the dominant undertaking from the market', and whether it had a capacity to do so.[49] Where the Commission does so, 'the General Court must examine all of the applicant's arguments seeking to call into question the validity of the Commission's findings concerning the foreclosure capability of the rebate concerned'.[50] Thus, whilst the Court expressed the need to consider the AEC test as a procedural obligation on the part of the authority, when the undertaking under investigation relies upon an AEC test as rebutting the contention that the pricing practice in issue is anticompetitive, it created in fact a substantive rule to this effect. It should be noted that the Court did not refer to *Post Danmark*

36 Ibid., at para. 64.
37 Case C-549/10 P, *Tomra Systems ASA and Others v Commission*, EU:C:2012:221.
38 Ibid., at para. 81.
39 *Post Danmark I* (n 3) paras. 21 and 22.
40 Ibid., at para. 30.
41 Ibid., at para. 36.
42 Ibid., at para. 61.
43 Ibid., at para. 59.
44 Ibid.
45 See also *Qualcomm (Exclusivity payments)* (Case AT.40200) Commission Decision of 24 January 2018, where the Commission did not find it necessary to perform an AEC test.
46 *Intel* (Case COMP/C-3/37.990—Intel) Commission Decision of 13 May 2009.
47 Case T-286/09, *Intel Corp. v European Commission*, EU:T:2014:547, paras. 142–151.
48 Case C-413/14 P, *Intel* (n 4), paras. 133 and 134.
49 Ibid., at paras. 138–9.
50 Ibid., at para. 141.

II, without however casting any doubt on the judgment, which has not been silently overruled or qualified by *Intel.* As these lines are written days before the hearing of *Intel* at the GC it remains to be seen which direction the Court will follow. Surely following *Intel*, dominant firms may be encouraged to self-assess legality on the basis of an AEC test, but this cannot give rise to any presumption that the action was not abusive. Even if the competition authority investigating the conduct accepts the results of the dominant undertaking's AEC test, it might decide there was no prospect of an as-efficient-competitor emerging. It might also consider that there would nevertheless have been a virtue in having entry by competitors, regardless of their efficiency, and that a dominant firm, in line with its 'special responsibility', should not undermine 'equality of opportunity' between economic operators, in the spirit of *Google Shopping*. This approach could be, according to the competition authority, particularly relevant in markets characterised by significant sunk costs and economies of scale, direct and indirect network effects, where the dominant firm is 'ultra-dominant'.[51]

In sum, it is clear from the case law that an AEC test may be relied upon by a competition authority to establish that a pricing practice is anticompetitive, and that is particularly apt to predatory pricing, or a margin squeeze practices. Indeed, an alternative assessment of the anticompetitive effects of such practices has yet to appear in the Commission's and Court's assessment of said practices.[52] However, the case law does not establish that an AEC test which is relied upon by the undertaking under investigation must be treated as highly relevant to, let alone determinative of, the question of whether any pricing practice is anticompetitive; as *Post Danmark II* clearly illustrates.[53] The AEC test is not an *erga omnes* rules nor an exclusive determinant of legality of all exclusionary pricing practices, as this would render it unnecessary to take account of 'all the circumstances' of the case as required by *Post Danmark I:*

> 'In order to determine whether a dominant undertaking has abused its dominant position by its pricing practices, it is necessary to consider all the circumstances and to examine whether those practices tend to remove or restrict the buyer's freedom as regards choice of sources of supply, to bar competitors from access to the market, to apply dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage, or to strengthen the dominant position by distorting competition (see, to that effect, Deutsche Telekom v Commission, paragraph 175 and case-law cited)'.[54]

It is also clear, again from *Post Danmark II*,[55] that there may be circumstances in which carrying out an AEC test is either impracticable or inappropriate, as for example in markets where an incumbent company faces competition from new entrants that do not enjoy the same scale advantages, and are therefore *not as efficient*, or at least *not yet as efficient* as the dominant undertaking.[56] In situations of overwhelming dominance, consumers will benefit from entry, even if the entrant is not as efficient as the incumbent.[57] Such circumstances involve a departure from both the AEC principle and the AEC test. Pablo Ibáñez Colomo convincingly argues in this respect that: '[I]t is reasonable to assume that, as the law stands, it would be for the authority or claimant to show, to the requisite legal standard, why the departure of less efficient rivals is justified in a given case'.[58]

What the preceding discussion sought to illustrate is that the AEC principle is broader than the AEC test. It seems that Google in this case was not arguing that the Commission should have employed the methodological tool of the AEC test, but it was relying on the broader AEC principle which following *Post Danmark I* and *Intel* is considered fundamental in Article 102 TFEU. The principle and the test should not be conflated, as adopting the mathematical expression of the principle across the board can be reductionist. In circumstances, such as those pertaining in *Post Danmark II*, some other means, other than the AEC test, must be used to ensure that the conduct complained of was not competition on the merits. It is thus clear from the case law that there is no requirement to establish anticompetitive foreclosure by means of an AEC test in all price-based exclusionary practices.

51 *Google Shopping* (n 1), para. 80.

52 In fact, in *Slovak Telekom* (n 27), para. 73, the Court stated that '[i]n order to establish an abuse consisting of a margin squeeze, it is important specifically for the Commission to demonstrate that the spread between the wholesale prices for the services concerned and the retail prices for downstream services to end-users was either negative or insufficient to cover the specific costs of those services which the company in a dominant position has to incur in order to supply its own retail services to end-users, so that that spread does not allow a competitor which is as efficient as that undertaking to compete for the supply of those services to end-users (see, to that effect, judgment in TeliaSonera, paragraph 32)'.

53 *Post Danmark II* (n 14), para. 61.

54 *Post Danmark I* (n 3), para. 26.

55 *Post Danmark II* (n 14), paras. 59–60.

56 This pronouncement is not only applicable to rebate schemes, in particular because they are consistent with the Court's pronouncements in the context of margin squeeze in *TeliaSonera* (n 27), paras. 45 and 46.

57 *Post Danmark II* (n 14), para 60; See also *Royal Mail* (n 18).

58 To this effect see Pablo Ibáñez Colomo, 'Anticompetitive Effects in EU Competition Law' (2021) 17:2 Journal of Competition Law & Economics 309, 339.

III. Contemplating the future relevance and application of the AEC test in exclusionary conduct

Where do we stand following the Court's confirmation of the categorical distinction between price and non-price-based exclusionary conduct, in *Google Shopping*? The Court reserves any application of the 'as-efficient-competitor' test to the former category only. In this section, we identify three possible scenarios regarding the future relevance and application of the AEC test in exclusionary conduct.

A. First option: retaining the status quo

This essentially reflects the position above. The AEC test remains in place for certain types of price-based exclusionary conduct, being 'one tool' amongst others for determining the legality of exclusionary price-based practices. In essence, the 'status quo' position acknowledges that the use of the AEC test, and the significance of the impact of the dominant undertaking's conduct on an as-efficient competitor, is a useful test in distinguishing competition on the merits from anticompetitive conduct. Where the conduct comprises low prices, the use of an AEC test may be particularly useful in establishing such distinction, and remains standard practice for predatory pricing and margin squeeze abuses. However, it is clear from *Intel* that the Court did not require the legality of low pricing to *only* be established through an AEC test nor did it accept the impact of conduct on an as-efficient competitor being the *defining* characteristic of abusive conduct.

Aside from price-based exclusionary conduct, the status quo position also renders the AEC test **irrelevant** for all non-price exclusionary conduct, as per *Google Shopping*.[59] This may lead to some overlap between competition law and upcoming regulations such as the Digital Markets Act, the latter aiming at implementing similar concepts such as 'equality of opportunity' from a *ex ante* perspective. Moreover, one could wonder whether this should, by extension, also render irrelevant a potential 'test based on the logic of that [AEC] test'[60] assessing the effects of non-price exclusionary conduct through the 'possibility of replication'[61] of a dominant firm's action by as-efficient competitors.

B. Second option: abandoning the AEC test

Under the second option, one can envisage the disappearance of the AEC test in pricing practices, save, perhaps, for predatory pricing and margin squeeze, and competition authorities undertaking an in-the-round assessment of all the circumstances of the case to prove anticompetitive foreclosure, in line with para. 20 of the Commission's Guidance paper.[62] This would reflect an acknowledgement that the well-established economic reasons for using the AEC test to define 'safe harbours' in predation cases do not necessarily extend to all instances of exclusionary pricing conduct, because the balance of false positives and false negatives will differ. Indeed, taken to an extreme interpretation, the AEC test reduces any conduct to a single equation and fails to capture the nuances of the conduct under consideration. As per *Google Shopping*, the AEC test would be irrelevant in the assessment of non-price exclusionary conducts.

Given that the relevance and application of the test has greatly diminished in the post-modernisation era of EU competition law, as Section II illustrated, one may question the very relevance of the 2009 Guidance Paper. If the Commission would entertain the possibility of a 'Guidance 2.0' document fit for the challenges of the digital economy one could expect the Commission to pay more attention to the less-efficient or not-yet-as-efficient competitors. Indeed, such a shift in enforcement would highly be relevant in the context of the digital economy, where network externalities and returns to scale facilitated by data may generate high entry barriers.

C. Third option: introducing an AEC test for self-preferencing

The third option reflects the status quo for price-based conduct, while maintaining the possibility to rely on the AEC test as 'one tool' amongst others for the corresponding legal test.

Instead, and in opposition to the status quo, an AEC test could be introduced in the assessment of effects for (some) non-price conduct. It could be used by competition authorities as one of the elements of the legal test, nor sufficient nor necessary to demonstrate effects, just as the 'standard' AEC test is relied upon in exclusivity rebates cases for instance. It could also be used by defendants, as one element within their analysis of effects. Such

59 See *Google Shopping* (n 1), paras. 538–9.
60 AG Rantos in *Servizio Elettrico Nazionale* (n 4), at para. 73.
61 Ibid., at para. 71.

62 See also Ofcom's infringement decision in Royal Mail, CW/01122/01/14. 'Discriminatory pricing in relation to the supply of bulk mail delivery services in the UK' (14 August 2018) <https://www.ofcom.org.uk/__data/assets/pdf_file/0022/124591/01122-infringement-decision.pdf> accessed 19 January 2022.

a test for non-price conduct could nicely fit into 'self-preferencing' cases where a dominant, integrated firm engages in non-price discrimination in order to reduce demand for the products or services of its downstream competitors while increasing that of its own downstream branch. Indeed, this setting resembles closely that of a margin squeeze case (albeit the non-price discrimination component), with its well-established approach to AEC tests.

In Section IV below, we develop a test fitting this 'outside the box' perspective for 'self-preferencing' cases. That test determines whether a competitor as efficient as the dominant firm could maintain positive profits upon facing the alleged anticompetitive practice itself, that is, upon being negatively affected by the non-price discrimination conduct. The elements of the test include the dominant firm's own prices and costs, as well as a special parameter which corresponds to the dominant firm's demand when it is placed in the position of a competitor being discriminated against. Such demand is necessarily hypothetical and could be computed based on actual demands and an understanding of the underlying discrimination mechanism. Our proposed test reduces to 'standard' AEC test commonly used in margin squeeze cases when there is no non-price discrimination and/or when firms have zero fixed costs of running or maintaining their downstream operations.

Importantly, we do not argue that such a test could or should be used for any non-price conduct. We simply consider that it could be useful in some cases, as one potential element of the legal test for assessing effects. The test we introduce in Section IV has two limitations: First, in some situations, it would be too complicated to implement. This would be the case, for instance, if the demand of the dominant firm in the hypothetical scenario where it is negatively affected by the non-price discrimination conduct itself is too difficult to compute. Second, it would be wholly inappropriate in cases such as *AstraZeneca*,[63] a case concerning the making of misleading representations to patent offices aimed at obtaining exclusive rights to which AstraZeneca was not entitled, where the concept of AEC has no place.

IV. An as-efficient-competitor test for self-preferencing

In this section we introduce an AEC test which could be implementable and relevant, at least in some cases, in helping authorities to demonstrate the exclusionary effects of a non-price conduct falling under the category of 'self-preferencing'. In this section, the notion of self-preferencing refers to potentially exclusionary conducts related to non-price discrimination practices such as preferential access or preferential display of products, as in *Google Shopping*.

We want to be clear from the outset that, in our view, this test could constitute *one* element amongst others which can be used by competition authorities in order to demonstrate exclusionary effects, on actual or potential competitors, as part of a general assessment, and should not be used as the sole decisive criterion in order to assess the effects of the conduct.[64]

What has prompted consideration of this test is the following paragraph from *Google Shopping*: 'The use of that [as-efficient-competitor] test, which involves comparing prices and costs, did not therefore make sense in the present case, since the competition issue identified was not one of pricing'.[65] Note that the GC clearly states that, because the conduct considered in *Google Shopping* is not a pricing conduct, a price–cost test does not 'make sense'. The GC argues that (i) such tests are 'warranted in the case of pricing practices' (para. 538) and that (ii) in 'the present case, the practices at issue are not pricing practices' (para. 538). By stating that the test does not 'make sense' (para. 539), the GC seems to imply that, under non-price conducts, such a test would not only be unnecessary but, further, that it could not bring anything useful to the assessment of effects. Instead, we believe that, for the same reasons the AEC test can be useful as 'one tool amongst others' in some pricing conducts in order to evaluate the legality thereof, similarly the AEC test could also be useful 'as one tool amongst others' for the assessment of non-price conducts similar to those of *Google Shopping*. We do not however argue here that such a test should be necessary to assess effects.

A. The AEC test for non-price conducts

Consider, for instance, that a vertically-integrated incumbent with a dominant position in the wholesale market possesses the ability to alter downstream competitors' demands through a non-price discrimination conduct. This could be done, for instance, by demoting

63 Case C-457/10, *AstraZeneca AB and AstraZeneca plc v European Commission*, EU:C:2012:770.

64 This logic would follow the 'status quo' view on, for example, exclusivity rebates, as stated by the European Commission in its *Qualcomm Decision* (n 48), para. 533: 'the Commission was not required to conduct a price–cost test assessing whether the payments could foreclose an "as-efficient competitor". Such a test is only one factor, among others, in the Commission's general assessment of whether a particular form of exclusionary conduct should be dealt with as a priority'.

65 *Google Shopping* (n 1), para. 539.

competitors within a series of online search results while giving priority to its own products or services being listed on top of a search result page, or by systematically allocating a prominent position (e.g., a 'Buy Box') to its own downstream branch. Such 'self-preferencing' reduces a competitor's demand and increases the incumbent's one.

For clarity of exposition, we consider the case with one competitor only (the 'entrant') and constant marginal costs of production. We denote by p_I and p_E the incumbent's and the entrant's prices downstream, respectively, whereas c_I and c_E represent their respective downstream marginal costs and F_I and F_E their respective fixed costs of production for the downstream service. Finally, in relation to the wholesale market, which is assumed to be monopolised by the incumbent in this simple model, w denotes the per-unit wholesale price that the entrant must pay the incumbent for each unit of the wholesale good or service (this wholesale price might be equal to zero) and u correspond to the (constant) marginal cost of the incumbent upstream.

Importantly, we denote by q_I and q_E the quantities sold by the incumbent and the entrant, respectively, when the incumbent does not engage in any 'self-preferencing' conduct. However, we denote these two demands by $q_I{}^+$ and $q_E{}^-$, respectively, when the incumbent engages in the conduct which boosts its sales (hence, the plus superscript '$+$') while decreasing those of the entrant (hence, the minus superscript '$-$') through, e.g., self-preferencing. Thus, under the non-price discrimination conduct, the incumbent's profit equals:

$$\left(p_I - u - c_I\right)\ q_I{}^+ + (w - u)\ q_E{}^- - F_I, \qquad (1)$$

whereas the entrant's profit is given by:

$$\left(p_E - w - c_E\right)\ q_E{}^- - F_E. \qquad (2)$$

The vertically-integrated incumbent's profit represents that the dominant firm possesses two profit streams: one is through its own downstream branch, and the other one corresponds to the wholesale profit earned when serving the entrant's downstream activities. The entrant, however, is only active downstream and has, therefore, only one profit stream.

Imputing the incumbent's cost and demand parameters to the entrant's position, we find that a (possibly hypothetical) competitor, which is as efficient as the incumbent would remain active in the long-run upon facing the 'self-preferencing' conduct if:

$$\left(p_I - w - c_I\right)\ q_I{}^- \geq F_I. \qquad (3)$$

This test compares the margin earned by the incumbent if it were in the entrant's position (and thus had to pay the wholesale price w for each unit sold) multiplied by the demand served by the incumbent if it were in the entrant's position (and thus had to face the negative effects of 'self-preferencing' on its own demand) to the fixed costs of operating the downstream service. In *Google Shopping*, competing price-comparison services need not pay any fees to be listed according to the basic functionalities of Google Search and, hence, $w = 0$. In other cases, however, w may well be positive, for instance if a merchant must pay a fee to an online platform for each sale made on such a platform.

This test is thus informative as to whether an as-efficient competitor would earn a positive profit upon facing the same conduct imposed by the incumbent on the entrant. If the test is passed, an as-efficient competitor would not be foreclosed by the conduct. If the test fails, however, the incumbent's conduct affects competition enough such that as-efficient competitors would be foreclosed following the incumbent's conduct. This test possesses several interesting properties.

First, the critical element one should notice is that the parameter $q_I{}^-$ enters the test, and that this corresponds to the demand for the incumbent's downstream good or service **in the hypothetical scenario where the incumbent would be demoted by the 'self-preferencing' conduct the same way such conduct actually demotes the entrant**. For instance, in *Google Shopping*, this would represent the traffic to Google Shopping in the hypothetical scenario where Google Shopping is being demoted in online search results on Google Search. This differs both from $q_I{}^+$, which corresponds to the incumbent's actual demand under 'self-preferencing' when Google Shopping is being promoted by Google Search (and competitors are being demoted), which can be measured with real data, and also from q_I, which would correspond to the incumbent's demand absent the conduct.

This purely hypothetical parameter, $q_I{}^-$, is, in some cases, relatively straightforward to compute. For instance, if the 'self-preferencing' conduct systematically slashes the entrant's demand by three across various configurations (implying $q_E{}^- = q_E/3$ and, hence, $q_I{}^- = q_I/3$) while simultaneously increasing the incumbent's demand twofold (i.e., $q_I{}^+ = 2q_I$), the hypothetical parameter entering the test, $q_I{}^-$, would be equal to one sixth of the actual demand served by the incumbent when the conduct is in place, because $q_I^- = q_I^+/6$. (Recall that q_I^+ can be measured in markets where the conduct takes place). In some other cases, however, computing such a demand may turn out to be rather complicated. This is the case, for instance, when the distortions in competitors' demands due to the conduct vary widely according to their respective identities, and/or whether the incumbent's downstream service differs from that of competitors such that it would be difficult to know the extent of the reduction of demand the incumbent would face if it were to be discriminated against.

It can also be useful to express the test as follows, isolating the incumbent's price on the left-hand side of the inequality and imputed costs on the right-hand side:

$$p_I \geq w + \left(c_I + F_I/q_I^-\right). \tag{4}$$

From this alternative formulation, it becomes clearer that the more the incumbent distorts competitors' demands downwards, the more difficult it is to pass this AEC test because this increases the incumbent's costs in the test.

Second, this test respects the legal certainty principle in that the incumbent has the ability to assess itself whether its conduct allows an as-efficient competitor to remain in the market or not.[66] Indeed, no knowledge of the entrant's cost is necessary. The incumbent only needs to know its own costs, prices, and to compute the parameter q_I^- discussed above.

Third, this test encompasses the 'standard' AEC test used in margin squeeze cases. Indeed, readers familiar with price–cost tests used to assess effects in margin squeeze cases will recognise that, absent any 'self-preferencing' conduct, that is, when the quantities sold by the incumbent and the entrant are q_I and q_E (i.e., without any superscript), respectively, the test corresponds exactly to that used in margin squeeze cases under the long-run (average) incremental cost standard, which takes into account fixed costs of production which are commonly used in margin squeeze tests.[67] Also, when the incumbent engages in 'self-preferencing', as long as the entrant's demand is not completely shut down to zero and there are no fixed costs of production downstream (i.e., $F_I = 0$), this test is absolutely identical to the standard AEC test used in margin squeeze cases.[68]

Therefore, a 'self-preferencing' conduct can also be assessed by its capabilities to foreclose as-efficient competitors according to a test, at least in some cases. Below, we apply this test to two different examples.

B. Applications

We now describe how the test developed above would apply to the *Google Shopping* case, and to the investigation into the allocation of the *Amazon Buy Box*.[69]

1. Google Shopping

Following the *Google Shopping* case, we apply our test to a setting where the upstream market is that of general search services and the downstream market is, instead, that of comparison shopping services.

The conduct changes the quantities (i.e., the internet traffic flows) q_I and q_E into q_I^+ and q_E^-, respectively, as the conduct 'decreases traffic from Google's general search results pages to competing comparison shopping services [and] increases traffic from Google's general search results pages to Google's own comparison shopping service'.[70] Indeed, according to the European Commission, under the conduct, 'Google's comparison shopping service has increased its traffic 45-fold in the United Kingdom, 35-fold in Germany, 19-fold in France, 29-fold in the Netherlands, 17-fold in Spain and 14-fold in Italy', whereas there were evidence of 'sudden drops of traffic to certain rival websites of 85% in the United Kingdom, up to 92% in Germany and 80% in France'.[71]

The test parameters are as follows. First, q_I^- corresponds to Google Shopping's demand in the purely hypothetical scenario where competitors would be given preferential positioning and display and where Google Shopping would, instead, be demoted by Google Search's algorithms. For the sake of an example, let us consider the following simplifying assumptions: (i) the conduct increased traffic to Google Shopping 20-fold; (ii) it decreased competitors' traffic by 80 per cent (i.e., traffic

66 See the discussion on legal certainty in margin squeeze in, e.g., *TeliaSonera* (n 27), paras. 41 and 46.

67 Long-run average incremental costs are computed as 'the difference between the total costs incurred by the firm when producing all products, including the individual product under analysis, and the total costs of the firm when the output of the individual product is set equal to zero, holding the output of all other products fixed' in *Wanadoo España vs. Telefónica* (Case COMP/38.784) Commission Decision of 4 July 2007, para 319.

68 This is true under our simplifying assumption of constant marginal costs.

69 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, 10 November 2020) <https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2077> accessed 20 January 2022 (Amazon Buy Box).

70 *Google Search (Shopping)* (Case AT. 39740) Commission Decision of 27 June 2017, para. 452 (Google Shopping Commission).

71 Commission, 'Antitrust: Commission fines Google €2.42 billion for abusing dominance as search engine by giving illegal advantage to own comparison shopping service' IP/17/1784 (Brussels, 27 June 2017) <https://ec.europa.eu/commission/presscorner/detail/en/IP_17_1784> accessed 20 January 2020.

was divided by 5); and (iii) the conduct would have had the same effects on the Google Shopping service than it had on competing comparison shopping services if the firms' roles were reversed. In this case, we would find that q_I^- is equivalent to about one hundredth of the actual traffic to Google Shopping measured under the 'self-preferencing' conduct, because $(1/20) * (1/5) = 0.01$.[72]

Second, as already discussed, $w = 0$ because there is no fee charged by Google Search to competing comparison websites outside of AdWords (the paid-for advertising/prominence on Google Search). Indeed, 'Google does not charge websites ranked in generic search results on its general search results pages and does not accept any payment that would allow websites to rank higher in these results'.[73] Third, p_I is the price charged to merchants by Google Shopping, because 'merchants pay Google when their product is clicked on in Google Shopping'.[74] Fourth, the marginal cost c_I is expected to be small, even potentially zero, as it corresponds to the marginal cost for Google Shopping to make one extra 'sale'. Finally, F_I corresponds to the fixed cost of operating Google Shopping, which is potentially large.

In conclusion, the test put forward in this section could potentially be applied to Google Shopping's 'self-preferencing' conduct in order to assess its anticompetitive effects on as-efficient competitors downstream.

2. Amazon Buy Box

We now describe what the parameters of our test could be according to the ongoing European Commission's investigation of 'the conditions and criteria that govern the selection mechanism of the Buy Box that prominently shows the offer of one single seller for a chosen product on Amazon's websites'.[75]

In such a case, the 'self-preferencing' conduct could be that Amazon (almost) automatically allocates the prominent Buy Box to itself as soon as it is active in the retail sale for a given product, to the detriment of competing merchants active on Amazon's marketplace. Because of its prominent position, being allocated the Buy Box may drive traffic and sales up, whereas, on the other hand, not being allocated such a Buy Box may lead to lower traffic and lower sales.

The test parameters could be as follows. First, q_I^- could correspond to Amazon's demand for the product in the purely hypothetical scenario where the Buy Box would be allocated to competing merchants the same way it is allocated to Amazon under the actual, alleged 'self-preferencing' conduct. Second, w could be the fee paid by merchants to Amazon upon completing a sale on its marketplace. Third, p_I could be the price of the product charged by Amazon to consumers. Finally, c_I could be Amazon's marginal cost for the product, whereas F_I could be its product-specific fixed cost of operating the good's production, sourcing, etc.

All in all, we see that the AEC test put forward in this section may be useful in assessing the potential or actual effects of Amazon's possible conduct on (hypothetical) as-efficient-competing merchants active on Amazon's marketplace.

V. Conclusion

In *Google Shopping*, the GC embraces a categorical distinction between price and non-price-based exclusionary conduct and reserves any application of the AEC test to the former category only. Moreover, the AEC test seems to have lost some of its relevance over the years in its application to price-based exclusionary conduct, with the notable exceptions of predatory pricing and margin squeeze.

It is reasonable to argue that in doing so, the Court is sharping its teeth for the challenges posed by the advent of the digital economy, where the benchmark of (potentially hypothetical) competitors as efficient as the dominant firms is ill-suited. As we discussed, however, the as-efficient-competitor principle and the as-efficient-competitor test should not be conflated, and the Courts have repeatedly tied the assessment of effects to the former, under Article 102 TFEU, at least for price-based conduct.[76]

Despite its many drawbacks we believe that the AEC test remains useful for certain categories of price-based conduct, as the margin squeeze cases demonstrate, as one possible element of the legal assessment of effects. We also have argued in this piece that there might be scope to introduce an AEC test, as one of the tools for assessing effects in 'self-preferencing' cases. Competition authorities and defendants could rely on the test we suggest in their assessment (or self-assessment) of effects.

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72 Note that this illustrative example based on simplifying assumptions should not be taken at face value and by no mean represents a robust assessment of Google's conduct in *Google Shopping*.

73 Google Shopping Commission (n 70), para. 17.

74 Ibid., at para. 31.

75 Amazon Buy Box (n 69).

76 See also the Opinion of AG Rantos in *Servizio Elettrico Nazionale* (n 4), paras 70–3, on the link between the goals of Article 102 TFEU and the AEC principle.