

University of Groningen

Minimum Efficient Scale, Competition on the Merits, and The Special Responsibility of a Dominant Undertaking

Yan, Xingyu; Vedder, Hans

Published in:
Journal of Competition Law & Economics

DOI:
[10.1093/joclec/nhac012](https://doi.org/10.1093/joclec/nhac012)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2023

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Yan, X., & Vedder, H. (2023). Minimum Efficient Scale, Competition on the Merits, and The Special Responsibility of a Dominant Undertaking. *Journal of Competition Law & Economics*, 19(1), 123-145. Advance online publication. <https://doi.org/10.1093/joclec/nhac012>

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

MINIMUM EFFICIENT SCALE, COMPETITION ON THE MERITS, AND THE SPECIAL RESPONSIBILITY OF A DOMINANT UNDERTAKING

Xingyu Yan* and Hans Vedder**

ABSTRACT

As a leading model of law on abuse of dominance, Article 102 TFEU hosts two notoriously vague concepts: competition on the merits and the special responsibility of a dominant undertaking. The former could mislead abuse assessments into an illusion of inherent impropriety, while the latter is susceptible to expansive interpretations that undermine the pivotal role of dominance. We propose a test centred on the concept of minimum efficient scale, which has been seriously overlooked or even mischaracterized under Article 102, to complement the as-efficient-competitor rationale. This test clarifies—with respect to exclusionary conduct—competition on the merits in a purely efficiency-based way and gives content to the special responsibility concept. It is compatible with the case law and can be operationalized vis-à-vis digital platform markets to tackle practices such as self-preferencing. It shows potential in enhancing the robustness of *ex post* antitrust when *ex ante* regulation has become the more popular recourse.

JEL: D42, K21, L40

I. INTRODUCTION

Article 102 of the Treaty on the Functioning of the European Union (TFEU) prohibits abuse of dominance to tackle unilateral conduct that harms competition in the internal market. But the vaguely stipulated concepts therein impeded formulating a clear doctrine.¹ It condemns abusive conduct by dominant undertakings and not their dominance as such, leading to the premise that pursuing and holding a dominant position is perfectly acceptable in the competitive process.² Yet it is unclear what qualifies as abusive conduct—or competition on the merits

* Assistant Professor, School of Law, Xiamen University, Xiamen, China. E-mail: xingyu.yan@outlook.com and yanxingyu@xmu.edu.cn.

** Professor of Economic Law, University of Groningen, Groningen, the Netherlands. E-mail: h.h.b.vedder@rug.nl. We take responsibility for the content and have no conflict of interest to declare.

¹ I. Samkalden and I. E. Druker, *Legal Problems Relating to Article 86 of the Rome Treaty*, 3(2) COMMON MARK. L. REV. 158, 169 (1966). A manifestation of the difficulty is this provision's belated activation in 1971 in *Continental Can*.

² Case C-209/10 *Post Danmark A/S v Konkurrencerådet (Post Danmark I)*, EU:C:2012:172, para 21. See also, RICHARD A. POSNER, *ANTITRUST LAW*, 248–49 (2nd edn, Chicago: University of Chicago Press, 2001).

(CotM), which is conceptualized as the antithesis of abuse—to the point that this abuse-CotM dichotomy becomes ostensibly vacuous.³ This induces a tendency to judge competitive conduct as inherently right or wrong, which is at odds with the postulation that competition law interventions are more pragmatically oriented to preserve welfare than morally driven to protect natural rights.⁴ This tendency appears strong, as shown in Section II. Besides, there is the practical challenge that conduct may have both pro- and anti-competitive effects, making the dichotomy not straightforwardly applicable.⁵

Another vague concept is the special responsibility (SR) of a dominant undertaking. This concept requires a dominant undertaking not to allow its conduct to impair genuine undistorted competition⁶ in the market where competition is already weakened due to the presence of the dominant firm.⁷ It treads a fine line between condemning dominance as such and preserving competitive pressure on dominant firms. It singles out dominant firms, forcing us to consider the reasons for this special treatment.⁸ One explanation is that certain conduct is considered socially unacceptable, and thus prohibited, precisely because it is carried out by a dominant firm.⁹ However, even with this rationale, the special responsibility concept is susceptible to expansive interpretations that ignore the causality between dominance and the social unacceptability.¹⁰

Scholars have advanced several alternative rationales to help clarify the abuse-CotM dichotomy. The strongest contender is the as-efficient-competitor (AEC) rationale. It defines the distinction as efficiency-based versus non-efficiency-based exclusions. But still, this rationale shows weaknesses under a decision theory lens and generates tension with some Article 102 precedents. Studies have identified these issues, both in general and in the Article 102 context, but have largely left open the question of how to resolve them. This article is an effort in that regard. It introduces the concept of minimum efficient scale (MES) to the AEC rationale to specify CotM and SR more coherently for the sake of enforcement precision and cost-effectiveness. This offers a constructive re-examination of the more welfare-centric, economics-based approach to antitrust, thereby contributing to the ongoing debate and reflection on the goals of competition law and its methodological inadequacies vis-à-vis the digital economic reality.

The rest of this article is structured as follows. Part II establishes, based on the literature, an MES-based test for distinguishing CotM and abuse. On that basis, Part III examines the meaning of CotM and SR in the application of Article 102 to unilateral exclusionary conduct and identifies friction and lacunae.¹¹ Part IV critiques how MES has been considered under Article 102 thus far and discusses how the proposed MES test can be accommodated to help clarify and

³ OECD, *Competition on the Merits*, DAF/COMP(2005)27, 17; Einer Elhauge, *Defining Better Monopolization Standards*, 56(2) STANFORD L. REV. 253, 255 (2003); Damien Geradin, *The Uncertainties Created by Relying on the Vague 'Competition on the Merits' Standard in the Pharmaceutical Sector: The Italian Pfizer/Pharmacia Case* 5(6) J. EUR. COMPETITION L. & PRACTICE 344, 347 (2014).

⁴ This postulation is exemplified by the different views of competition law and intellectual property law on promoting innovation. See Tim Wu, *Intellectual Property Experimentalism By Way of Competition Law*, 9(2) COMPETITION POLICY INT. 30, 30–31 (2013). It is also exemplified in the different approaches of Article 102 TFEU and the GDPR to tackling exploitative data collection. See Nicholas Economides and Ioannis Lianos, *Restrictions on Privacy and Exploitation in the Digital Economy: A Market Failure Perspective*, 17(4) J. COMPETITION L. & ECON. 765, 768–70, 791 (2021).

⁵ Elhauge, *supra* note 3, at 263. See also, RENATO NAZZINI, *THE FOUNDATIONS OF EUROPEAN UNION COMPETITION LAW: THE OBJECTIVE AND PRINCIPLES OF ARTICLE 102*, 53 (Oxford: Oxford University Press, 2011).

⁶ Case 322/81 *NV Nederlandsche Banden Industrie Michelin v Commission (Michelin I)*, EU:C:1983:313, para 57.

⁷ Case 85/76 *Hoffmann-La Roche & Co AG v Commission*, EU:C:1979:36, para 91.

⁸ EKATERINA ROUSSEVA, *RETHINKING EXCLUSIONARY ABUSES IN EU COMPETITION LAW*, 71–72 (Oxford: Hart Publishing, 2010).

⁹ NAZZINI, *supra* note 5, at 178.

¹⁰ See Section III.A.1 below.

¹¹ Exclusionary effects may also arise in multilateral actions, relevant to Article 101 TFEU. See further ROUSSEVA, *supra* note 8, at 478. Further to the scope of this article, exploitative and discriminatory forms of abuse are not dealt with as they involve different forms of competitive harm.

operationalize the SR and CotM concepts, particularly vis-à-vis digital platform markets. Part V concludes.

II AN MES-BASED TEST FOR ASSESSING UNILATERAL EXCLUSIONARY CONDUCT

This section examines, under the mantra of ‘protecting competition, not competitors’ and the lens of decision theory, the three tests proposed in scholarship for distinguishing abuse from CotM. It identifies the AEC test as the strongest candidate and suggests the need to calibrate this test into an MES-based one.

A. Background Premises

1. *Protecting the Competing-to-Monopolize Process Instead of Competitors*

Inherent in the abuse-CotM dichotomy is the logic that unilateral exclusionary conduct employed by a firm in the presence of business rivals can be conceptually classified into two kinds: (1) non-merits-based conduct, which should be outlawed for being competitively harmful; (2) merits-based conduct, which should be lawful because it embodies and enhances competition.¹² This distinction hinges on whether competition is restricted, although there may well be more fundamental objectives at play.¹³

Underlying this conceptual distinction is the internal friction of the competitive process: ‘competition to obtain a monopoly is an important form of competition’.¹⁴ This can be explained in the static model of price theory, where all firms aspire to monopolize—by whatever means—because a monopoly yields the highest profits.¹⁵ Understanding competition as ‘competing to monopolize’ inevitably means that we understand competition (also) as the exclusion of certain rivals.¹⁶

In the model focusing on dynamic efficiencies, monopolies are potentially efficiency-enhancing in the sense that a somewhat concentrated market structure may be an indication of improved efficiency¹⁷ and may be more likely to stimulate innovation than a highly fragmented one.¹⁸ This dynamic viewpoint underscores the importance of preserving undertakings’ incentives to innovate by allowing them to reap their business success manifested as market power, especially in scenarios where the prospect of supra-competitive returns is what triggers investment in innovation.¹⁹

Competition policy responds to these economic insights with the normative notion that monopolists (and dominant firms) are entitled to equal opportunities of competition and

¹² ROBERT H. BORK, *THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF*, 135 (New York: Basic Books, 1978); Elhauge, *supra* note 3, at 264–65.

¹³ The intermediate objective would be the protection of the competitive process. See *infra* note 97. In comparison, a more value-laden way of distinction would turn on whether conduct increases efficiency and welfare. See BORK, *supra* note 12, at 116, 137, 311. Other fundamental concerns include fairness and, particularly relevant to the EU, market integration. See Eleanor M. Fox, *Monopolization and Dominance in the United States and the European Community: Efficiency Opportunity and Fairness*, 61(5) NOTRE DAME L. REV. 981, 1008 (1986); Claus-Dieter Ehlermann, *The Contribution of EC Competition Policy to the Single Market*, 29(2) COMMON MARK. L. REV. 257, 258–59 (1992).

¹⁴ POSNER, *supra* note 2, at 248.

¹⁵ Elhauge, *supra* note 3, at 262–63, 298.

¹⁶ A. Douglas Melamed, *Exclusive Dealing Agreements and Other Exclusionary Conduct—Are There Unifying Principles?* 73(2) ANTITRUST L. J. 375, 382–83 (2006).

¹⁷ Giovanni Dosi, Orietta Marsili, Luigi Orsenigo & Roberta Salvatore, *Learning, Market Selection and the Evolution of Industrial Structures*, 7(6) SMALL BUS. ECON. 411, 423 (1995).

¹⁸ Note that many other factors impact the innovativeness. See J. G. Sidak & D. J. Teece, *Dynamic Competition in Antitrust Law*, 5(4) J. COMPETITION L. & ECON. 581, 587–89, 592, 600–01 (2009). See also, Philippe Aghion, Nick Bloom, Richard Blundell, Rachel Griffith & Peter Howitt, *Competition and Innovation: An Inverted-U Relationship*, 120(2) Q. J. ECON. 701, 720–21 (2005).

¹⁹ Janusz A. Ordover & Robert D. Willig, *An Economic Definition of Predation: Pricing and Product Innovation*, 91(1) YALE L. J. 8, 22 (1981).

reaping the fruits of their success manifested as market power.²⁰ Accordingly, competition law does not concern itself with every practice merely because it excludes competitors. This returns us to the question of the right test(s) for distinguishing good from bad exclusion. The following subsection sets some formal requirements for the right test(s).

2. Decision Theory Considerations: Administrability, Predictability, and the Costliness of a Unifying Test

Serving as a roadmap for decision-makers, an abuse test should reduce enforcement errors (false positives and false negatives) in individual cases. In other words, it aspires to induce precise findings of unlawful exclusionary conduct in varying case circumstances. But on the other hand, the level of precision attainable in individual cases will be inherently limited considering the reality of imperfect information.²¹ Besides, the pursuit of precision is costly and enforcement resources are scarce. Given the impossibility of perfect precision in individual cases, generalization would have to be introduced at some point.²² This requires an abuse test to be *administrable*, so as to help courts and enforcement agencies navigate through the informational constraints and pursue precision within an affordable range of enforcement costs.²³

Antitrust regulators and the regulated firms are in a repeated game model, where a current regulatory action affects the counterparty's future actions. This advances another requirement: a test should be *predictable* enough for firms to assess *ex ante* their business practices. Otherwise, it would likely stunt innovation and competition endeavours in the long run.²⁴ This requirement echoes the call for generalization, because pursuing precision regardless of the cost would cause unpredictability.

We note a difference between the somewhat generalized roadmap guidance that an abuse test offers and the level of generalization that the test itself possesses. The former is the substance of the test whereas the latter is the form. Regarding form, there is the commonly referenced dichotomy between rules and standards.²⁵ An abuse test, functioning as a roadmap, likely falls closer to a standard than a rule. Therefore, the costs identified in decision theory for devising a precise rule may not be fully applicable. There is, however, a degree of commonality. Two determinants of formulation costs apply to both the abuse test and a precise rule: the homogeneity of the regulated conduct types and how frequently the test/rule encounters them. The (marginal) costs for pursuing precision go down as the level of homogeneity or the frequency increases.²⁶

In that sense, applying a unifying abuse test would be costly. First, the level of homogeneity across all types of unilateral exclusionary conduct is low. Some subtypes, such as exclusive dealing and loyalty rebates, are more similar because their theories of harm are arguably analogous to each other. But other subtypes, such as predatory pricing and refusal to deal, are much less so. Second, the chance for the law to encounter different conduct types varies.²⁷ Therefore, it is worth considering having a baseline test—supplemented by

²⁰ Melamed, *supra* note 16, at 379, 382, 394. See also, NAZZINI, *supra* note 5, at 78.

²¹ Isaac Ehrlich & Richard A. Posner, *An Economic Analysis of Legal Rulemaking*, 3(1) J. LEG. STUD. 257, 268–70 (1974).

²² C. Frederick Beckner & Steven C. Salop, *Decision Theory and Antitrust Rules*, 67(1) ANTITRUST L. J. 41, 42 (1999).

²³ Herbert Hovenkamp, *Exclusion and the Sherman Act*, 72(1) U. Chi. L. Rev. 147, 148 (2005); *id.* at 45–46.

²⁴ Steven C. Salop, *Exclusionary Conduct, Effect on Consumers, and the Flawed Profit-Sacrifice Standard*, 73 ANTITRUST L. J. 311, 349 (2006).

²⁵ Ehrlich & Posner, *supra* note 21, at 258 ('A standard indicates the kinds of circumstances that are relevant to a decision on legality and is thus open-ended.; A rule withdraws from the decision maker's consideration one or more of the circumstances that would be relevant to decision according to a standard.')

²⁶ Ehrlich & Posner, *supra* note 21, at 264, 267–71. See also, Mark S. Popofsky, *Defining Exclusionary Conduct: Section 2, the Rule of Reason, and the Unifying Principle Underlying Antitrust Rules*, 73(2) ANTITRUST L. J. 435, 437, 458–60 (2006).

²⁷ On this point, it is difficult to give a precise answer regarding the chances because that would require a detailed empirical study, but it should be relatively easy to make a general observation from any EU competition law textbook that records the case precedents under article 102 TFEU.

certain presumptions of legality and illegality—as a coherent way to rationalize the existing a buse tests.

B. Searching for a Baseline Test

The literature supplies three abuse test candidates: the welfare-balancing test, the no economic sense test, and the AEC test. This subsection examines them based on the background premises from Section II.A.

1. Failure of the Welfare-Balancing Test

The welfare-balancing test examines ‘whether the conduct harms competitors by raising their costs and whether those higher costs harm consumers and competition by allowing the defendant to achieve, maintain, or enhance monopoly power’.²⁸

This test aspires to induce findings of illegality as precisely as possible but to that end, it falls short in terms of administrability. First, this test is highly contingent on ‘strong and often untestable assumptions that substantially affect the estimates’ for assessing short-run competitive effects, making its real-world application difficult and error-prone.²⁹ Second, it cannot adequately account for long-run competitive effects,³⁰ even though antitrust enforcement vis-à-vis digital markets increasingly turns on dynamic competitive assessments.

To be fair, the welfare-balancing test does reflect some predictability considerations—it may guide a decision-maker to make the optimal decision based on limited information and when operationalized, this decision-making process would be able to guide firms’ self-assessments.³¹ But still, it appears weak under the administrability requirement.

2. Failure of the No Economic Sense Test

A popular suggestion to rationalize the separation of abuse from competition on the merits is the inherent impropriety—more specifically, the inherent competitive harm—of abusive conduct. Representing the ‘chastised Harvard School’,³² Areeda (1989) construes ‘impropriety’ as ‘the conduct requirement—not just market power—necessary to constitute monopolization under Section 2 of the Sherman Act’.³³ The underlying idea is that all unilateral business conduct excludes so there has to be a qualification of some kind for the prohibition of conduct. Some Chicago School scholars also embraced the inherent impropriety notion. In his seminal book, Robert Bork supports the idea of condemning practices that are contrary to ‘normal methods’ ‘either because of their inherent nature or effect or because of the evident purpose of the acts’.³⁴ He understands ‘normal methods’ as superior efficiency and considers the ‘inherent nature’ of abnormality to be a trigger of *per se* rule of illegality.³⁵

Considering the need for an *external* benchmark to distinguish good and bad competitive conduct that uniformly excludes, Bork adopts the criterion of ‘unrelated to efficiency’ to qualify abnormality.³⁶ Critically, he understands efficiency specifically and narrowly under the profit

²⁸ Salop, *supra* note 24, at 318 (quote), 331.

²⁹ Gregory J. Werden, *Identifying Exclusionary Conduct under Section 2: The No Economic Sense Test*, 73(2) ANTITRUST L.J. 413, 431 (2006).

³⁰ *Id.* at 431–32.

³¹ Salop, *supra* note 24, 343–45, 352.

³² Herbert Hovenkamp, *The Harvard and Chicago Schools and the Dominant Firm*, in *HOW THE CHICAGO SCHOOL OVERSHOT THE MARK: THE EFFECT OF CONSERVATIVE ECONOMIC ANALYSIS ON US ANTITRUST* 110, 110–11 (Robert Pitofsky ed., Oxford: Oxford University Press, 2008).

³³ Phillip Areeda, *Essential Facilities: An Epithet in Need of Limiting Principles*, 58(3) ANTITRUST L.J. 841, 845–47 (1989).

³⁴ BORK, *supra* note 12, at 18, 36–37. See also, Ryan R. Stones, *The Chicago School and the Formal Rule of Law*, 14(4) J. COMPETITION L. & ECON. 527, 548 (2018).

³⁵ BORK, *supra* note 12, at 36, 38. See also, Robert H. Bork, *The Rule of Reason and the Per Se Concept: Price Fixing and Market Division*, 74(5) Yale L.J. 775, 804 (1965) (arguing that the inherent abnormality dismisses the need to examine and weigh the actual effects of a contentious practice and that it would suffice to infer illegality from other aspects of fact).

³⁶ BORK, *supra* note 12, at 38–39 (quote), 137, 311.

maximization premise of price theory.³⁷ To him, a practice would be unrelated to efficiency (thus possessing inherent impropriety) if it appears to have willingly sacrificed profit. Accordingly, he suggests adopting the predation rationale as the overarching approach to regulating all unilateral exclusionary practices,³⁸ where the litmus test is one of profitability.³⁹

This led to the no economic sense test. Focusing on the ‘notion of fair play’ and ‘the nature of the defendant’s conduct’, Melamed (2006) refines—by taking a dynamic account of what is profit maximization—Bork’s profit sacrifice test into a test that asks whether a practice makes no economic sense *but for* its likelihood of excluding rivals.⁴⁰ A positive answer to the question would mean the practice is bad in nature and presumptively unlawful, while a negative answer would suggest the practice makes business sense for being profitable so is *per se* lawful.⁴¹ The distinction turns on the counterfactual ‘continued viability of the rival’ rationale: for a contentious exclusionary practice, if it appeared profit-maximizing in the counterfactual scenario where the rival was not excluded, it would make economic (efficiency) sense; otherwise, it would not.⁴²

But there is a problem with this presupposed distinction of ‘good’ (efficiency-based) and ‘bad’ (non-efficiency-based) competitive behaviour: it is unverifiable universally—at least not by the making-economic-sense standard because ‘economic sense’ is a subjective and dynamic notion. It is difficult to draw a clear line between making economic sense and making sense in the ‘but for’ exclusionary way.⁴³ It is more difficult when we factor in strategic interactions between firms. In certain strategic interaction settings, competitive conduct can be simultaneously profitable and exclusionary in a non-efficiency-based way.⁴⁴ In this regard, the economic sense standard is unreliable for distinguishing efficiency-based (lawful) and non-efficiency-based (unlawful) conduct and for accomplishing its goal of efficiency preservation. Whilst the welfare-balancing test addresses this issue,⁴⁵ it fails the requirement of being administrable.

Put differently, presupposing ‘good’ and ‘bad’ competitive behaviour is intuitive but futile when confronted with the fact that rival exclusions are inherent in the competitive process,⁴⁶ and the no economic sense test championed by it provides no objective and coherent criteria for applying the presupposed distinction.⁴⁷ Bork, Melamed, and Areeda suggest in their respective

³⁷ BORK, *supra* note 12, at 119–21.

³⁸ Bork uses ‘predation’ to characterise unilateral exclusionary conduct, which is to impose losses on rivals by bearing insignificant or recoupable short-run losses itself. See BORK, *supra* note 12, at 137, 144, 147–48.

³⁹ One of the few practices flagged by this litmus test is predatory pricing. Even so, Bork considers it likely unproblematic under the single monopoly profit theorem. See BORK, *supra* note 12, at 144, 149–54. The same logic is applied to excuse exclusive dealing practices, which he considers would make profit-maximising sense for enhancing efficiency through integration. See BORK, *supra* note 12, at 306–09.

⁴⁰ Melamed, *supra* note 16, at 382, 387–88 (quotes); Werden, *supra* note 29, at 415–16, 424. This reference to the intuitive and yet unspecified idea of “fair play” is the key in his conceptualisation of unlawful exclusionary conduct and endorsement of “the sacrifice test”.

⁴¹ Melamed, *supra* note 16, at 388, 392, 398 (suggesting that establishing the *per se* lawfulness requires no weighing of the conduct’s pro- and anti-competitive effects). Put more frankly, this test sees *per se* lawful conduct as incapable of generating anticompetitiveness at all. See Andrew I. Gavil, *Exclusionary Distribution Strategies by Dominant Firms: Striking a Better Balance*, 72(1) ANTITRUST L. J. 3, 52–53 (2004).

⁴² Melamed, *supra* note 16, at 390–91, 393; Ordovery & Willig, *supra* note 19, at 13–14.

⁴³ As Salop points out, ‘it could well be that the firm would be able to recover its investment cost in a more efficient technology *only* if it were able to gain a monopoly market share and raise its price’ (emphasis in original). See Salop, *supra* note 24, at 346.

⁴⁴ This is the case with exclusive dealing agreements, where profitable but inefficient exclusions can occur if there are collective action problems among the customers of a dominant firm or if these customers can collude as intermediaries with the dominant firm to exploit final consumers. See Ilya R. Segal & Michael D. Whinston, *Naked Exclusion: Comment*, 90(1) AM. ECON. REV. 296, 298–305 (2000); John Simpson & Abraham L. Wickelgren, *Naked Exclusion, Efficient Breach, and Downstream Competition*, 97(4) AM. ECON. REV. 1305, 1306–07, 1317–18 (2007).

⁴⁵ Salop, *supra* note 24, at 315–16.

⁴⁶ Gavil, *supra* note 41, at 21 (identifying this problem in relation to the *Aspen* judgment by the US Supreme Court).

⁴⁷ Popofsky, *supra* note 26, at 445–47.

work using intent to draw the distinction,⁴⁸ but anticompetitive intentions—even if they could be identified with sufficient certainty—are not legally condemnable. In the same vein, the absence of intent does not guarantee lawfulness either. More importantly, under the premise that all rivalrous behaviour excludes, the idea that there is a difference between ‘proper’ and ‘improper’ intentions is incompatible with the adoption of efficiency as an external benchmark for separating lawful and unlawful conduct because intent does not correlate with efficiency. Also, without objectively defining what is ‘improper’, this line of thinking risks being trapped in circular reasoning: there is a preconceived notion of what is proper and improper, and we would just know when we see it, either in actual manifestations or in the undertaking’s intentions; this would, in turn, reinforce the preconceived notion.

3. Strength and Weakness of the As-Efficient-Competitor Test

Judge Richard Posner is credited for pioneering the AEC test. He acknowledges that ‘a practice may be at once exclusionary and efficient’,⁴⁹ and suggests using the AEC benchmark to weigh these two kinds of effects, thus distinguishing non-efficiency-based exclusions from efficiency-based ones.⁵⁰ Posner understands non-efficiency-based exclusions as the ones that result in ‘an increase in the market price above the competitive level’.⁵¹ Notably, his advocacy for the AEC test is accompanied by a distrust of using exclusionary intent as a proxy for identifying non-efficiency-based exclusions.⁵² Accordingly, this test dives directly into measuring and weighing efficiency-impairing and -enhancing effects, and for that, it has few other choices but to rely heavily on price–cost comparisons.⁵³ But to be sure, although the price–cost comparison plays a big role in the application of the AEC test, it is not a necessary condition of the latter, as pricing is not the only means of non-efficiency-based exclusions. The key point made by the AEC test is that finding abuse is all about benchmarking the exclusionary effects.

Elhauge (2003) complements the AEC test. Seeing that all rivalries exclude, he suggests that the key to determining the unlawfulness of exclusionary conduct is to track *how* the conduct in question contributed to the furthering of monopoly power. If it furthered the monopoly power by enhancing the firm’s own efficiency, the conduct should be cleared; but if it did so by undermining rival efficiency, the conduct should be unlawful, irrespective of whether it enhanced the firm’s own efficiency.⁵⁴ The undermining of rival efficiency and the enhancement of the firm’s own efficiency are conceptualized as mutually exclusive, no matter how ambivalent the conduct’s effects are. This mutual exclusiveness is rationalized under the proportionality principle: when a practice (such as exclusive dealing or refusal to deal) undermines rival efficiency and simultaneously somewhat enhances the firm’s own efficiency, it would be unlawful if the rival-efficiency-undermining effects are *disproportionate* to the enhancing/exploiting of own efficiency.⁵⁵

Much as the AEC test aligns with the protecting-the-competitive-process mandate (described in Section II.A.1), it has the drawback of being potentially under-inclusive. First, it has been pointed out that this test may overlook the significant competitive restraints resulting from

⁴⁸ BORK, *supra* note 12, at 160 (considering ‘improper exclusion’ intentions to be a necessary but not sufficient condition for finding unlawful conduct); Melamed, *supra* note 16, at 393–94; Areeda, *supra* note 33, at 852 (considering the relevance of ‘whether the defendant had an intention to exclude by *improper* means’; emphasis in original).

⁴⁹ POSNER, *supra* note 2, at 193.

⁵⁰ POSNER, *supra* note 2, at 193–96.

⁵¹ POSNER, *supra* note 2, at 200–01.

⁵² POSNER, *supra* note 2, at 214–15 (‘Any doctrine that relies upon proof of intent is going to be applied erratically at best.’); cf. NAZZINI, *supra* note 5, at 64.

⁵³ ROBERT O’DONOGHUE & A. JORGE PADILLA, *THE LAW AND ECONOMICS OF ARTICLE 102 TFEU*, 232–33 (2nd edn, Oxford: Hart Publishing, 2013).

⁵⁴ Elhauge, *supra* note 3, at 256.

⁵⁵ Elhauge, *supra* note 3, at 256–57, 323–24.

less efficient competitors, especially when economies of scale or scope are present.⁵⁶ Second, the AEC test could be functionally irrelevant when it comes to non-price-based practices like a misuse of the patent process, as such practices would effectively exclude all competitors no matter how efficient they are.⁵⁷ Another drawback concerns its predictability—firms would find it difficult to assess *ex ante* their conduct (especially non-pricing practices) because the criteria this test uses for finding unlawful conduct may not be foreseeable or controllable to the firm responsible for the conduct.⁵⁸ Here, the AEC test may be contrasted with the no economic sense test, which relies on ‘the objective economic considerations for a reasonable person’ as the preliminary criterion for finding illegal conduct.⁵⁹

In sum, the AEC test has limited tools for assessing non-pricing conduct and it raises two formal requirement concerns (under-inclusiveness and limited predictability). Critically, however, none of these issues are inherent in the AEC baseline rationale. With some calibrations of this test, these issues can be addressed and the AEC rationale reinforced. This is discussed in the next subsection.

C. An MES-Based Test Supplemented by Presumptions

1. *The Concept of Minimum Efficient Scale and Its Normative Implications*

The concept of MES is associated with economies of scale. When the marginal cost of production is below the average cost per output, with every additional output unit there is a less-than-proportional cost increase, so it is more cost-effective to produce at a larger scale. As a feature of market structure, economies of scale exist when there are large fixed costs.⁶⁰

The extent of scale economies depends on the marginal cost curve. This is shown in Figure 1. Suppose that marginal cost (MC) appears as a U-curve as it usually does. So it has the lowest point (A): marginal cost falls to a bottom as the output level increases up to the quantity coordinate of that point (q_a), and starts to rise thereafter. As marginal cost keeps rising with the output expansion, at a certain point (B) the amount of marginal cost is bound to catch up to the amount of average cost (AC) and so marginal cost increase becomes proportional to the total cost increase.⁶¹ When that happens, economies of scale are exhausted. This exhaustion can be delayed by widening the gap between average cost (c_{a2}) and marginal cost (c_{a1}) at that lowest point (A). In other words, the larger the fixed production costs are, the more extensive the economies of scale are.

MES can thus be defined as the lowest level of output at which economies of scale are exhausted.⁶² As the extent of scale economies correlates positively with the level of fixed costs, the size of MES does too. In markets where the production requires a large amount of fixed (sunk) costs, a firm would need to be relatively large to reach MES. MES can be measured by estimating firm cost functions, the same way that economies of scale can be measured.⁶³

For antitrust, the variable size of MES necessitates the consideration of the relevant market size. If by definition the total amount of demand is large enough to accommodate multiple

⁵⁶ Salop, *supra* note 24, at 328; Melamed, *supra* note 16, at 388.

⁵⁷ NAZZINI, *supra* note 5, at 74.

⁵⁸ Melamed, *supra* note 16, at 388.

⁵⁹ Werden, *supra* note 29, at 416–17.

⁶⁰ A related concept is economies of scope, where, due to the existence of common production costs or cost complementarities, the total costs of producing two or more products by the same firm are less than the aggregate costs of each product being produced by a different firm. Economies of scope can reinforce economies of scale in a multiproduct setting. See LYNNE PEPALL, DAN RICHARDS & GEORGE NORMAN, *INDUSTRIAL ORGANIZATION: CONTEMPORARY THEORY AND EMPIRICAL APPLICATIONS*, 69, 75 (5th edn, Hoboken: Wiley, 2014).

⁶¹ In that sense, one way to detect the presence of economies of scale is to verify whether the total cost increase is proportional to the total output increase. This can be done by dividing the percentage increase in total output by the percentage increase in total cost. See PEPALL, RICHARDS & NORMAN, *supra* note 60, at 70–71.

⁶² PEPALL, RICHARDS & NORMAN, *supra* note 60, at 70.

⁶³ PEPALL, RICHARDS & NORMAN, *supra* note 60, at 83–85.

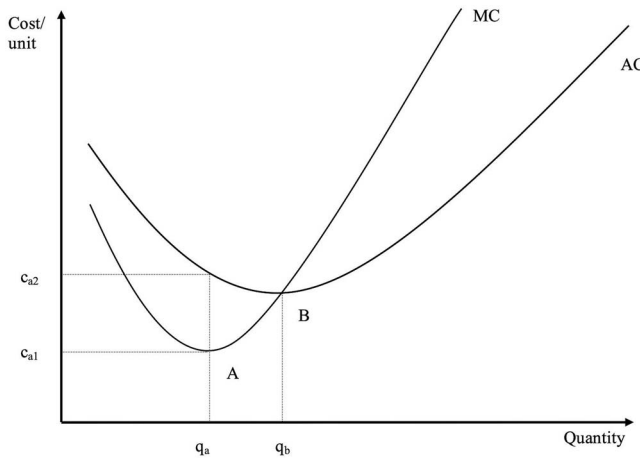


Figure 1. Economies of scale and the marginal cost and average cost curves.

firms, a large MES will not necessarily entail a concentrated market structure. However, if by definition the relevant market is limited and the MES is large, the market structure is likely concentrated. Usually, market demand increases as the price (or cost) decreases,⁶⁴ and it reaches its full potential at the point where the production cost is driven down to a minimum. Also, it may be the case that the total demand of a market is increasing or decreasing over time.⁶⁵ These factors have a limiting impact on how many firms can achieve MES. To be sure, there are many determinants of market structure, and the impact of MES on the market structure can be negated or overshadowed by other factors.

The extreme of a concentrated structure is a natural monopoly. This happens when the amount of market demand at the minimum long-run cost level (which means the cost cannot be lowered any further with static efficiency) is less than twice the size of the output of a firm's MES.⁶⁶ In that case, there should be no realistic expectation of within-market rivalries, and non-efficiency-based exclusions would be unlikely.

A less extreme scenario is where the potential total demand is more than twice the size of the MES and so at least two firms (an incumbent and an entrant) can gain footholds. In that case, the incumbent and the entrant are equally efficient from the start, although the former enjoys some incumbency advantages. There should be no problem unless the incumbent is using the advantages to foreclose rivals because then non-efficiency-based exclusion becomes a valid concern.⁶⁷

So far this subsection describes MES from a static viewpoint. Market size can change though. In a fast-growing market, a rival is unlikely to be inefficiently foreclosed from reaching MES because of plentiful emerging demand.⁶⁸ Moreover, in cases where dynamic competition drives firms to find new demand curves and new consumer surplus gains, it is more about competing *for* (the incumbency of) a new market and less about competing *in* an existing market.⁶⁹ There,

⁶⁴ A less usual situation exists in platform markets featuring positive externality of demand within a user group. There, these users' demand curve may be temporarily upward going as the price increases. This is discussed in Section IV.C.1.

⁶⁵ Einer Elhauge, *Why Above-Cost Price Cuts to Drive out Entrants Are Not Predatory—And the Implications for Defining Costs and Market Power*, 112(4) YALE L. J. 681, 713 (2003).

⁶⁶ *Id.* at 790–91.

⁶⁷ See generally, Chiara Fumagalli & Massimo Motta, *A Simple Theory of Predation*, 56(3) J. L. & ECON. 595 (2013) (examining this concern under the premises of scale economies and sequential buyers).

⁶⁸ *Id.* at 616–17.

⁶⁹ Sidak & Teece, *supra* note 18, at 600–01.

the market may be narrowly defined and the MES found large (on account of, for example, significant R&D investments), but inefficient exclusions of rivals would be unlikely.

2. Calibrating the AEC Test into an MES-Based One

As discussed in Section II.B.3, the AEC test has the weakness of underestimating the exclusion of *potentially* as-efficient competitors. It is also over-reliant on price–cost comparisons, thus showing analytical limitations outside the realm of pricing conduct. Consequently, there is a tendency to mistake the toolkit limitations of the AEC test for its inapplicability, as exemplified in the legal debates around *Intel*.⁷⁰ To this, we suggest that the AEC rationale does not have to be reduced to a price–cost comparison, much like an exclusive dealing requirement does not necessarily call for an illegality presumption. The illegality presumption on exclusive dealing exists not because the exclusivity element is inexcusable, but because the special responsibility concept is interpreted expansively.⁷¹ The concept of MES can be helpful for both complementing the AEC rationale and enriching the interpretation of the special responsibility. The latter is further discussed in Section IV.B.

The concept of MES can help the AEC rationale transform into a more inclusive analytical framework where firms being restrained from reaching MES becomes a sufficient but not necessary condition for as-efficient competitors being excluded. Rival firms can become as-efficient only after they reach an MES. Meanwhile, as-efficient firms would regress to an MES or worse if they were being foreclosed—more specifically if their costs are raised to the extent that they cannot afford to produce as-efficiently anymore.⁷² Therefore, an AEC exclusion can be established in two alternative scenarios: (1) when an incumbent took measures to prevent a newcomer from reaching MES; (2) when the incumbent took measures to prevent a rival from staying as-efficient or above MES.⁷³ These measures exclude by raising rivals' costs and can be directed at specific firms or not.

While mitigating the under-inclusiveness of the standard deployment of the AEC test, incorporating the MES concept into the AEC rationale would also increase predictability. This is because an MES-based test advises incumbent firms to look at their own cost functions—rather than to know much about their rivals—when self-assessing the legality of their competitive conduct.⁷⁴ This is not to suggest that estimating one's own cost functions is easy, but it is at least more feasible than estimating the efficiencies of rivals. This, in turn, also increases the administrability of this test, certainly in comparison to the welfare balancing test. Furthermore, the fact that it does not depend on assumptions that will need to be tested to demonstrate exclusionary capability further points to the limited enforcement costs involved in administering this test.

⁷⁰ Some scholars consider it superfluous to apply the AEC test to exclusivity rebates, arguing that the exclusivity element sets these rebates apart from predatory pricing practices and so warranted their presumptive illegality. See for example, Wouter P. J. Wils, *The Judgment of the EU General Court in Intel and the So-Called More Economic Approach to Abuse of Dominance*, 37(4) *WORLD COMPETITION* 405, 423 (2014); Paul Nihoul, *The Ruling of the General Court in Intel: Towards the End of an Effect-Based Approach in European Competition Law?* 5(8) *J. EUR. COMPETITION L. & PRACTICE* 521, 526, 530 (2014).

⁷¹ Alison Jones, *Distinguishing Legitimate Price Competition from Unlawful Exclusionary Behaviour: Reconciling and Rationalising the Case-Law*, in *COMPETITION LAW CHALLENGES IN THE NEXT DECADE* 123, 150, 152–153 (Sofia Oliveira Pais ed., Bern: Peter Lang Publishing, 2016).

⁷² Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price*, 96(2) *YALE L. J.* 209, 234 (1986).

⁷³ Admittedly, the causal link between the conduct and the exclusionary effects in each scenario is likely to become a bigger point of contention in practice, as observed in Pablo Ibáñez Colomo, *Anticompetitive Effects in EU Competition Law*, 17(2) *J. COMPETITION L. & ECON.* 309, 358 (2021). Such a dispute emerged in the *Microsoft* case, where the Commission dismissed Microsoft's claim that its product was outperforming rivals because of superior efficiency, by *presuming* a causal link between the accused conduct and a rival product's decline. See Commission Decision of 24 March 2004 (Case COMP/C-3/37.792—Microsoft) (non-confidential version), paras 947–51.

⁷⁴ See *supra* note 63 and accompanying text.

In any event, antitrust enforcers need to look at the market circumstances as to how difficult it is for firms to reach an MES and whether the incumbent is actively contributing to that difficulty. Admittedly, in that regard, the MES concept may not be applied very straightforwardly. A smooth application is more likely in circumstances featuring large sunk costs, such as those of *Deutsche Post* (Section IV.A.1). The application would be more complex in circumstances where a handful of firms were able to achieve MES while others could not. In that case, we would need to ascertain if the inability to reach MES is the result of a small market size or because practices that raise rivals' costs are at play (Section IV.C).

3. Repositioning the No Economic Sense Test into Illegality Presumptions

As shown in Section II.B.2, the idea of inherent impropriety is illusory because exclusions are inherent in rivalry. The distinction between efficiency-based and non-efficiency-based exclusions is quantitative rather than qualitative. Accordingly, the appropriate logic should be to find conduct unlawful when the exclusionary effects exceed a level that is benchmarked against certain external criteria. Attempting to define unlawfulness otherwise would be futile at best and misleading at worst.

To be clear, the no economic sense test does show strength for assessing certain types of abuse. For example, it works well on refusal to deal, because normally it makes no sense for a firm to willingly forgo marginal profits unless the firm has an ulterior motive.⁷⁵ But such cases can also be accounted for by devising presumptions, so there is no point in choosing the costlier option of adopting 'no economic sense' as a unifying test. Instead, we should limit the use of this test as a rebuttable presumption of illegality applicable only to the types of unilateral conduct that can be identified, in a specific context, as having no plausible prospect other than competition restriction (or put differently, 'naked exclusions'⁷⁶) by external, objective criteria. If this assessment suggests otherwise, we would need a standard against which competitive harms can be benchmarked.

Such external, objective criteria could take the form of the abuse of procedures or rules. Examples are the abuse of the patent process in *AstraZeneca*,⁷⁷ the patent ambush in *Rambus*,⁷⁸ and the misrepresentation of pharmaceutical prescription rules in *Hoffmann-La Roche*.⁷⁹ The blatant violations of the law provide a shortcut for ascertaining competitive harm. Other criteria include, inter alia, the intentions behind the contentious conduct.⁸⁰ These criteria serve to confirm the presupposed inherent impropriety that is at the heart of the no economic sense test. These criteria are to be understood as part of the 'all circumstances' approach to assessing abuse⁸¹ and correspond to the context-test that forms the basis of the object-effect dichotomy in Article 101 TFEU.⁸² To further elaborate, the following section turns to the particular legal enterprise that is Article 102.

III. COMPETITION ON THE MERITS AND THE SPECIAL RESPONSIBILITY UNDER ARTICLE 102 TFEU

Although recent years' more economics- and effects-based approach to Article 102 has greatly aligned the law's application with mainstream economic thinking, the situation is far from perfect. This section examines the normative meaning of CotM and SR with a view toward

⁷⁵ Hovenkamp, *supra* note 23, at 157.

⁷⁶ Melamed, *supra* note 16, at 399; Popofsky, *supra* note 26, at 447.

⁷⁷ COMP/A.37.507/F3—*AstraZeneca*, para 144.

⁷⁸ Case COMP/38.636—*RAMBUS*.

⁷⁹ Case C-179/16 F. *Hoffmann-La Roche Ltd and Others v Autorità Garante della Concorrenza e del Mercato*, EU:C:2018:25.

⁸⁰ See *infra* note 118 and accompanying text.

⁸¹ See *infra* note 114 and accompanying text.

⁸² See *infra* note 120 and accompanying text.

extant tension between rule-level and case-level application. Article 102 consists of two parts: the dominance premise and abuse assessments. These two parts are inextricably linked, and therein lies the key to understanding the two said concepts.

A. The Special Responsibility of a Dominant Undertaking

Finding a dominant position is prerequisite for declaring conduct in violation of Article 102. It relies heavily on structural criteria such as market shares and concentration levels. Taking the market structure as a point of departure invariably influences the understanding of the competition in that market and this, in turn, explains the relevance of the special responsibility concept and the link between dominance and abuse that are explored below.

1. Behavioural Restraints against the Ability to Foreclose Competition

The Court of Justice construed dominance as ‘a position of economic strength’,⁸³ which is an indicator that first, the market competition has already been weakened, and second, there is a risk of further weakening the already restricted competition.⁸⁴ In that sense, dominance is understood in a way that accentuates an undertaking’s ability to foreclose competition. Accordingly, any conduct used to implement that ability would be identified as abuse and considered unlawful.⁸⁵ In that light, dominance is never perceived as neutral; rather, the law considers that holding a dominant position, although not condemnable as such,⁸⁶ entails certain behavioural restraints on the dominant undertaking.

These behavioural restraints are embodied in the special responsibility concept in *Michelin I*.⁸⁷ This origin in the qualification of a company as dominant, however, does not remove all ambiguity in the concept. The ambiguity makes the concept subject to expansive interpretations, thus serving as a shortcut for finding abuse, especially when the market power of the dominant firm in question is not so great compared to those of non-dominant firms.⁸⁸ When this happens, the assessment focus shifts away from whether the conduct *is* harmful in the particular dominance context and to whether the conduct *can be* harmful in general and whether there is dominance in particular. This is exemplified by the unyielding presumption of illegality on exclusive dealing (including exclusivity rebates) in the case law.⁸⁹ What we are dealing with is thus the question of the rule-level application versus the case-level application of Article 102.

2. A Wide Scope of the Behavioural Restraints

As the law understands dominance as the ability to foreclose competition and introduces behavioural restraints to prevent that ability from being actualized, a question arises as to how far the restraints go. More specifically, a question arises as to whether a practice has to be an exercise of the market power underlying the dominant position to constitute abuse.

When prescribing the objective conception of abuse in *Hoffmann-La Roche*, the Court of Justice held that dominance and abuse need not be causally linked.⁹⁰ This no-causal-link-needed

⁸³ Case 27/76 *United Brands Company and United Brands Continentaal BV v Commission*, EU:C:1978:22, para 65; Case 85/76 *Hoffmann-La Roche*, EU:C:1979:36, para 38.

⁸⁴ Case 85/76 *Hoffmann-La Roche*, EU:C:1979:36, para 91.

⁸⁵ PABLO IBÁÑEZ COLOMO, *THE SHAPING OF EU COMPETITION LAW*, 153–54 (Cambridge: Cambridge University Press, 2018).

⁸⁶ In cases involving statutory monopolies, Article 106 has been applied in connection with 102 TFEU to the effect that the dominance of a statutory monopolist requires a justification under Article 106(2) TFEU, for example, Case C-320/91 *Paul Corbeau*, EU:C:1993:198.

⁸⁷ Case 322/81 *Michelin I*, EU:C:1983:313, para 57.

⁸⁸ ROUSSEVA, *supra* note 8, at 72.

⁸⁹ Jones, *supra* note 71, at 150–53.

⁹⁰ Case 85/76 *Hoffmann-La Roche*, EU:C:1979:36, para 91; EU:C:1978:162, Opinion of AG Reischl, 583.

standpoint is consistent with the *Continental Can* ruling that activated Article 102 TFEU.⁹¹ There, the Court of Justice held that a practice strengthening the dominant position needed not to be objectionable as a manner of exercising market power to trigger the Article 102 prohibition, if ‘the degree of dominance reached substantially fetters competition’.⁹²

Nonetheless, this standpoint was nuanced in *Tetra Pak*. The Court of Justice stated that generally, ‘application of Article [102] presupposes a link between the dominant position and the alleged abusive conduct’, but in ‘special circumstances’, this link requirement could be lifted.⁹³ At first sight, this may seem like a contradiction to *Hoffmann-La Roche*, but arguably it is not: in *Tetra Pak*, the ‘link’ that the Court of Justice was referring to could be understood as *dimensional* (which assumes the abuse and the dominance to be in the same market), rather than causal. Given the absence of further jurisprudence, *Hoffmann-La Roche* remains good law. In that sense, *Tetra Pak* complements *Hoffmann-La Roche* by explaining that the waiving of a *causal* link does not preclude the need for a link of a different kind between dominance and abuse.

The Court’s standpoint may appear odd theoretically.⁹⁴ What puts it into perspective is the ‘ability to foreclose’ definition of dominance: given that the presence of a dominant position is already a sign of weakened market competition, any further weakening on account of the dominant undertaking—causal to the dominant position or not—would be unacceptable. This standpoint has therefore effectively widened the application scope of Article 102 to include almost all kinds of business practices.⁹⁵ This widened scope of application ensures that the vigilance underlying this provision is uncompromised.

The implication is that both dominant and non-dominant firms are capable of carrying out a particular type of practice that potentially qualifies as abuse, whereas only the dominant firm engaged in this practice infringes Article 102. In that light, it would be unreasonable to say that the abusiveness derives inherently from the conduct type. A more reliable answer would be that the abusiveness flows from the market power underlying the dominant position.⁹⁶ This is sensible at the rule level, but it may raise questions at the case level of application, particularly when the market power of the dominant firm is not qualitatively different from that of a non-dominant one.

B. The Abuse-Competition on the Merits Dichotomy

Following the finding of dominance is the assessment of whether an action qualifies as abuse. At the rule level, Article 102 recognizes the abuse-CotM dichotomy and points to ‘potential effects’ as the way of delineation, but friction is identifiable in the case-level application. Two premises underpin the examination in this subsection: First, the direct legal objective of Article 102 is the protection of the competitive process,⁹⁷ resulting in *competitive harm* as the threshold

⁹¹ Case 6/72 *Europemballage Corporation and Continental Can Company Inc v Commission (Continental Can)*, EU:C:1973:22, 229.

⁹² Case 6/72 *Continental Can*, EU:C:1973:22, paras 26–27.

⁹³ Case C-333/94 P *Tetra Pak International SA v Commission*, EU:C:1996:436, para 27.

⁹⁴ This is because in practice this causal link is present in most cases. See O’DONOGHUE & PADILLA, *supra* note 53, at 264–65.

⁹⁵ IBÁÑEZ COLOMO, *supra* note 85, at 157. See also, ROUSSEVA, *supra* note 8, at 73–74.

⁹⁶ NAZZINI, *supra* note 5, at 177–78.

⁹⁷ This direct objective of EU competition law can be identified from a literal reading of Protocol 27 of the TFEU (ex art.3(f) EEC). See also, Maurice E. Stucke, *What Is Competition?* in *THE GOALS OF COMPETITION LAW* 27, 29 (Daniel Zimmer ed., Cheltenham: Edward Elgar, 2012).

for its application.⁹⁸ Second, competitive harm needs to be established—either presumed or verified—in a particular case before a prohibition is triggered.⁹⁹

1. *The Potential Effects Criterion*

To establish competitive harm is often equated to establishing effects on competition. In this regard, the case law consistently holds that potential effects, instead of actual effects, would suffice for establishing an abuse of dominance.¹⁰⁰ To a large extent, expressions such as ‘the potential of’, ‘the likelihood of’, and ‘the capability of having such effects’ are used interchangeably in the case law.¹⁰¹ Also, the objective or intention of causing anticompetitive effects is often, controversially,¹⁰² equated to the potential of having such effects.¹⁰³

The potential effect criterion is attributable to the ‘ability to foreclose’ definition of dominance—the presence of dominance is already a sign of weakened competitive structure and any further weakening would be unacceptable, so a dominant undertaking bears the special responsibility of not letting that happen on its account.¹⁰⁴

But there is a problem in the case-level application: accompanying this potential effects criterion is a counterfactual premise that competition would have been greater in the absence of the conduct in question. This premise is generally capable of dismissing positive evidence of competition remaining.¹⁰⁵ Such evidence cannot discount the anticompetitiveness of the conduct in question because it is not for the dominant undertaking to dictate what level of competition should exist.¹⁰⁶ Accordingly, in the presence of such evidence, one could always claim that the level of competition would have been even better in the ‘but-for’ scenario where the accused conduct did not take place.¹⁰⁷

2. *Delineating Competition on the Merits*

The notion of CotM emerged in *AKZO* as the antithesis of abuse, but no clear line was drawn.¹⁰⁸ The Court of Justice sidestepped the question of whether the targeted competitors deserved to be excluded for having inferior performance. It only speculated that those excluded competitors ‘are perhaps as efficient as the dominant undertaking’,¹⁰⁹ raising the question of whether—and if so, to what extent—less efficient competitors also have a role to play in the competitive

⁹⁸ ANNE C. WITT, *THE MORE ECONOMIC APPROACH TO EU ANTITRUST LAW*, 110 (Oxford: Hart Publishing, 2016).

⁹⁹ *Id.* at 271. Note that this holds true irrespective of the effects- or rule-based approaches, as discussed in Viktor J. Vanberg, *Consumer Welfare, Total Welfare and Economic Freedom—On the Normative Foundations of Competition Policy, in COMPETITION POLICY AND THE ECONOMIC APPROACH: FOUNDATIONS AND LIMITATIONS* 44, 62–63 (Josef Drexler, Wolfgang Kerber & Rupprecht Podszun (eds), Cheltenham: Edward Elgar Publishing, 2011).

¹⁰⁰ Case T-228/97 *Irish Sugar plc v Commission*, EU:T:1999:246, para 191; Case T-203/01 *Manufacture française des pneumatiques Michelin v Commission (Michelin II)*, EU:T:2003:250, paras 239, 241; Case T-201/04 *Microsoft Corp v Commission*, EU:T:2007:289, paras 561, 563; Case C-52/09 *Konkurrensverket v TeliaSonera Sverige AB*, EU:C:2011:83, para 64; Case C-23/14 *Post Danmark A/S v Konkurrencerådet (Post Danmark II)*, EU:C:2015:651, paras 64–66.

¹⁰¹ See, for example, Case T-228/97 *Irish Sugar*, EU:T:1999:246, para 191; Case T-203/01 *Michelin II*, EU:T:2003:250, paras 239, 241; Case C-23/14 *Post Danmark II*, EU:C:2015:651, para 64; Case T-219/99 *British Airways plc v Commission*, EU:T:2003:343, para 293; Case C-549/10 P *Tomra Systems ASA and Others v Commission (Tomra)*, ECLI:EU:C:2012:221, para 79; Case T-814/17 *Lietuvos geležinkeliai AB v Commission*, ECLI:EU:T:2020:545, para 239.

¹⁰² See, critically, O'DONOGHUE & PADILLA, *supra* note 53, at 267.

¹⁰³ Case T-203/01 *Michelin II*, EU:T:2003:250, para 241. See also, Case T-340/03 *France Télécom SA v Commission*, EU:T:2007:22, para 195.

¹⁰⁴ See *supra* note 100.

¹⁰⁵ O'DONOGHUE AND PADILLA, *supra* note 53, at 268; Ibáñez Colomo, *supra* note 73, at 359–60 (attributing this problem to the forgetting that, like ‘actual’ effects, ‘potential’ effects can and should also be established with a sufficient degree of certainty/probability).

¹⁰⁶ Case T-286/09 *Intel Corp v Commission*, EU:T:2014:547, paras 117, 124; Case C-549/10 P *Tomra*, ECLI:EU:C:2012:221, para 42.

¹⁰⁷ Case T-219/99 *British Airways*, EU:T:2003:343, para 298.

¹⁰⁸ *ECS/AKZO* (Case IV/30.698) Commission Decision 85/609/EEC [1985] OJ L374/1, paras 74, 77, 81; Case C-62/86 *AKZO Chemie BV v Commission* EU:C:1991:286, para 70.

¹⁰⁹ Case C-62/86 *AKZO*, EU:C:1991:286, para 72.

process.¹¹⁰ In *AstraZeneca*, the CotM was linked to the SR concept.¹¹¹ Intent was also advanced as a relevant (but not necessary) criterion for finding abuse through a context-specific, non-presumptive approach.¹¹² As a result, ‘an undertaking’s right to defend its legitimate business interests’ must be balanced against the need to preserve competition in a spirit of proportionality.

Post Danmark I further developed CotM by clarifying that the concept is about effects, not form. Based on *Michelin I*, *Compagnie maritime belge transports*, and *TeliaSonera*, the Court of Justice validated domination/monopolization ‘on its own merits’ and clarified that the exclusion of less efficient competitors is the expected outcome of CotM.¹¹³ This led to a two-dimension analytical framework for assessing abuse in taking into account ‘all the circumstances’: (1) the ‘methods’ dimension, which requires that, to trigger the prohibition, the methods employed should not be ‘part of competition on the merits’; (2) the ‘effects’ dimension, according to which there should be exclusionary effects on as-efficient competitors.¹¹⁴ Importantly, these two dimensions should not be understood as two cumulative conditions—namely the form and the effects of the conduct in question—for finding abuse. Rather, they are the two dimensions of the same thing—a qualified level of anticompetitive actions that leads to the finding of abuse. The reason was discussed earlier: the law does not require a causal link between dominance and abuse, so both dominant and non-dominant undertakings may carry out a type of conduct that *can* be characterized as abuse. Whether the conduct is characterized as abuse depends therefore on the effects and has no innate connection with the form of conduct. Admittedly, the form of conduct could be relevant, but only as a proxy for anticompetitive effects. In that light, EU case law lends support to the point elaborated in Sections II.B.2 and II.C.3 that there is no inherent impropriety deriving from a specific form of conduct; the impropriety derives from the effects of the conduct, as they are established or identified by means of a proxy.

Intel addresses the question of to which degree the form of conduct can function as a proxy for effects. The General Court presumed the abusiveness of exclusivity rebates on the sole basis of the exclusivity.¹¹⁵ To be sure, this presumption was well supported by a string of case law starting from *Hoffmann-La Roche*,¹¹⁶ but arguably, what is overlooked is why the precedents supported this presumption: it was because the exclusivity, in combination with dominance, was considered a workable proxy for identifying anticompetitive effects when no better approaches were available. Therefore, when the Commission performed an AEC analysis to ascertain the level of anticompetitive effects caused by Intel’s rebate schemes, the purely proxy-based presumption by the General Court became irrelevant. The Court of Justice referred the case back to the General Court’s judgment, precisely because of this irrelevance. Thus in its recent judgment, the General Court was tasked with reviewing the economic evidence pertaining to the anticompetitive effects.¹¹⁷

Generics tries to reconcile this tension between effects-based assessments and form-based presumptions. To delineate CotM from abuse in this case, the Court of Justice pointed to the element of intent, however, only as one aspect of all the circumstances to be considered

¹¹⁰ The Commission acknowledges this issue in the Guidance on the Commission’s enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings [2009] OJ C45/7 (the Commission Guidance Paper), para 24.

¹¹¹ Case T-321/05 *AstraZeneca AB and AstraZeneca plc v European Commission*, EU:T:2010:266, para 671; Case C-457/10 P *AstraZeneca AB and AstraZeneca plc v European Commission*, EU:C:2012:770, paras 98, 134, 149.

¹¹² Case T-321/05 *AstraZeneca*, EU:T:2010:266, para 359; Case C-457/10 P *AstraZeneca*, EU:C:2012:770, para 99 (instructing this context-specific, non-presumptive approach for assessing whether misuses of the patent process constitute CotM).

¹¹³ Case C-209/10 *Post Danmark I*, EU:C:2012:172, paras 21–22.

¹¹⁴ Case C-209/10 *Post Danmark I*, EU:C:2012:172, paras 25–26.

¹¹⁵ Case T-286/09 *Intel*, EU:T:2014:547, para 85.

¹¹⁶ Case T-286/09 *Intel*, EU:T:2014:547, paras 80–81.

¹¹⁷ Case T-286/09 *RENV Intel*, EU:T:2022:19, paras 145–49.

in the objective conception of abuse.¹¹⁸ In that sense, the Court of Justice advanced the proportionality principle. Namely, to distinguish abuse from CotM involving the exercise of an intellectual property right, there needs to be a context-specific, effects-based assessment to ascertain whether the exercise went beyond its justifiable scope.¹¹⁹ This corresponds to the standpoint that ‘the economic and legal context’ is essential for establishing restrictions both by object and by effect under Article 101 TFEU.¹²⁰ By implication, the mere existence of pro-competitive effects does not necessarily save an agreement from being qualified as a restriction by object.¹²¹ This review of the economic and legal context can then reveal whether—for example—a patent-dispute settlement agreement has no plausible explanation other than the collusive restriction of competition, which can be established via the proxy of the value of the transfers involved.¹²²

To summarize Section III, EU law instructs a context-specific approach to distinguishing CotM from abuse. It is an intricate design at the rule level. In the case-level application, this approach tends to gravitate towards presumptive assessments, due to the ‘ability to foreclosure’ conception of dominance and the ‘potential effects’ criterion for ascertaining competitive harm. Meanwhile, the ‘more economics-based’ trend of case law developments champions more objective, AEC rationale-aligned assessments of conduct effects but reserves the option of using presumptions and form-based proxies due to practical challenges. The upshot is that, to carry forward the more economics-based trend, there are still lacunae that need addressing, including concretizing the SR concept against expansive interpretation and making the Court’s use of the AEC rationale more coherent across the board when facing practical constraints. To that end, the next section tries to better incorporate the MES concept into the Article 102 paradigm.

IV. OPERATIONALIZING COMPETITION ON THE MERITS AND SPECIAL RESPONSIBILITY VIA MINIMUM EFFICIENT SCALE

This section first critiques how the Commission has used the MES concept under Article 102 thus far. Then it discusses how this concept can give content to SR and operationalize CotM, particularly vis-à-vis digital platform markets. Lastly, it clarifies this test’s compatibility with the case law.

A. The Commission’s Use of MES under Article 102

1. *Deutsche Post*

In *Deutsche Post*, the Commission used the MES notion for determining whether the disputed fidelity rebates were abusive. As it found, ‘Successful entry into the mail-order parcel services market requires a certain critical mass of activity’.¹²³ This critical mass was quantified as some 100 million parcels a year.¹²⁴ The underlying logic is that a new entrant can compete head-on with the incumbent only after it gets a solid foothold in the market. The Commission considered that the rebates foreclosed competitors from attaining their MES customer bases.

¹¹⁸ Case C-307/18 *Generics (UK) Ltd and Others v Competition and Markets Authority*, EU:C:2020:52, paras 148, 151, 154, 162, 169.

¹¹⁹ Case C-307/18 *Generics (UK)*, EU:C:2020:52, paras 150, 152, 154 (instructing an assessment of ‘the alleged exclusionary effects’, ‘having regard to all the relevant facts surrounding that conduct’). Note that the excludability inherent in an intellectual property right is considered separately from the effects of conduct and as a surmountable entry barrier in this case. See para 46.

¹²⁰ Case C-307/18 *Generics (UK)*, EU:C:2020:52, paras 67, 70, 82, 104.

¹²¹ Case C-307/18 *Generics (UK)*, EU:C:2020:52, para 106.

¹²² Case C-307/18 *Generics (UK)*, EU:C:2020:52, paras 87–90.

¹²³ *Deutsche Post AG* (Case COMP/35.141) Commission Decision 2001/354/EC [2001] OJ L125/27, para 37.

¹²⁴ *Deutsche Post* [2001] OJ L125/27, paras 32, 37.

As confirmation, it pointed to the finding that for ten years there had been no entry and the incumbent had held consistently a market share of over 85 percent.¹²⁵

Although laudable for including a quantitative analysis, the Commission's use of MES was somewhat superficial. It did not explain how it came to the number of '100 million parcels a year', nor did it further assess how this large MES might be indicative of the market structure. If a successful entry into the relevant market indeed required 'considerable sunk costs' for infrastructure,¹²⁶ the lack of entry attempts would make at least some efficiency sense: the incumbent (Deutsche Post) enjoyed significant economies of scope as well as scale, as it had significant *common fixed costs* for (1) providing the commercial mail-order parcel services and (2) fulfilling the public obligation of maintaining a reserve capacity for over-the-counter parcel services.¹²⁷ Since the supervising regulators did not object, the scope and scale economies could be seen as compensation for the postal universal service obligation imposed on it.¹²⁸ Under such circumstances, an entry would not be easy indeed,¹²⁹ but to be fair, the potential entrants would not bear any public service obligation either. Therefore, the fact that there was no entry and the market share was consistently above 85 percent might not be entirely attributable to the disputed rebates. Of course, this does not necessarily mean that the rebates were not abusive,¹³⁰ but a more nuanced analysis along the lines of the MES would have reinforced the theory of harm in this decision.

2. The Contestability Distinction in the Guidance Paper

In the Guidance Paper, the Commission distinguished contestable and non-contestable shares of demand when introducing the AEC rationale for rebates analyses. The point is to acknowledge that a dominant position yields an incumbency advantage that opens only a certain proportion of the market for competition, putting the focus on the degree to which the non-contestable part could be used as leverage to foreclose rivals vis-à-vis the contestable part. Accordingly, a price-cost comparison that is in the AEC spirit is confronted with the following issue: when a rebate scheme is based on all the purchases from the incumbent, a competitor for a customer's contestable demand would need not just to match the incumbent's price discounts on that contestable demand but also to compensate the customer's loss of discounts on the (mainly non-contestable) remaining purchases from the incumbent.¹³¹

This incumbency advantage can be explained by, among other factors (such as learning-by-doing), the presence of significant sunk and fixed costs for entry and expansion.¹³² The incumbent have made such investments, but the rivals are either constrained from committing such investments or still waiting for the infrastructures or technologies to become operational,¹³³ so the customers have no alternative supply sources but the incumbent for large proportions of demand. Importantly, the sunk and fixed costs also yield extensive economies of scale, which give the incumbent a sizeable cost advantage compared with rivals that have not yet made such investments. Therefore, it is equally necessary to delineate this cost advantage before

¹²⁵ *Deutsche Post* [2001] OJ L125/27, paras 32, 39, 42.

¹²⁶ *Deutsche Post* [2001] OJ L125/27, para 32.

¹²⁷ *Deutsche Post* [2001] OJ L125/27, paras 8–10.

¹²⁸ Pietro Crocioni, *On the Relevant Cost Standard for Price-Cost Test in Abuses of Dominance*, 14(2) J. COMPETITION L. & ECON. 262, 282 (2018).

¹²⁹ Fumagalli & Motta, *supra* note 67, at 612.

¹³⁰ Segal & Whinston, *supra* note 44, at 298–305.

¹³¹ The Commission Guidance Paper [2009] OJ C45/7, paras 39, 41–44.

¹³² Fumagalli & Motta, *supra* note 67, at 597, 610.

¹³³ Commission Decision of 13 May 2009 (Case COMP/C-3/37.990—Intel) (definitive non-confidential version), para 886.

assessing whether an as-efficient competitor is being excluded.¹³⁴ To that end, determining the incumbent's MES could be crucial, for it can serve as an AEC benchmark that filters out the excessive impact of the incumbent's unrivalled sales volume on the cost structure.

Unfortunately, however, this task of delineating scale economies is not always thoroughly undertaken. This is largely attributable to the conception of contestable and non-contestable shares: as an oversimplified account of the incumbency advantage,¹³⁵ it automatically diverts the analytical attention to the leveraging of the non-contestable shares to lock in customers, and away from the delineation of the incumbent's cost advantage derived from the scale economies that a potentially as-efficient rival can but does not yet have. This is problematic, as the incumbency advantage of holding non-contestable demand shares and the cost advantage deriving from scale economies are not the same thing: the former is ultimately the result of high barriers to entry and expansion and thus merits concerns, whereas the latter is the result of fixed and sunk costs and a neutral feature of the market at hand. This 'contestable versus non-contestable' conception emphasizes the former and downplays the latter.

On top of that, the case law instructs a potential effects criterion¹³⁶ and a rather unforgiving standpoint towards exclusivity.¹³⁷ As a result, it is unnecessary to look into the extent and possible changes of the non-contestable proportion in the given circumstances. Consequently, the possible efficiency accounts that flow from scale economies are seriously overlooked. This is shown in the Commission's AEC analysis in *Intel*.

3. The Commission's AEC Analysis in *Intel*

The *Intel* case is the newest addition to a long line of precedents on rebates. At its centre is the Commission's AEC analysis on rebates subject to exclusivity conditions. There, the Commission considered the presence of non-contestable shares, mostly along the line of how they might be leveraged to make it impossible for a rival to match the price discounts.¹³⁸

The mission to delineate scale economies for an accurate AEC analysis¹³⁹ was skewed, as an MES assessment was nowhere to be found. The Commission did note the large MES present in the market, but only as an indicator of high entry barriers.¹⁴⁰ As explained in the previous subsection, this is a mischaracterization of MES. A large MES as such is not necessarily an obstacle for an as-efficient competitor to enter or expand. Unlike the incumbency advantage, MES is attainable by all rival firms—unless the incumbent is actively inhibiting them from doing so.

The Commission rejected Intel's efficiency justification of scale economies, on the grounds that the justification was imprecise and that the rebates were still unnecessarily restrictive of competition.¹⁴¹ However, following the AEC rationale, a question could be asked as to what would be a 'necessary' or 'proportionate' restriction that enables as-efficient competitors to enter and expand while unproblematically excluding less-efficient ones. This begs a discussion on the case-specific MES. But since the Commission understood MES as nothing more than an indicator of entry barriers, it should come as no surprise that the Commission quickly dismissed Intel's scale economies justification.

¹³⁴ Case COMP/C-3/37.990—*Intel*, para 1004 (explaining that the AEC analysis is 'a hypothetical exercise in the sense that it attempts to analyse whether a competitor which is as efficient as Intel . . . , but which would not have as broad a sales base as Intel, would be foreclosed from entering').

¹³⁵ O'DONOGHUE AND PADILLA, *supra* note 53, at 232.

¹³⁶ See *supra* Section III.B.1.

¹³⁷ Case 85/76 *Hoffmann-La Roche*, EU:C:1979:36, para 89.

¹³⁸ Case COMP/C-3/37.990—*Intel* at paras 1006, 1009.

¹³⁹ Case COMP/C-3/37.990—*Intel* at para 1004.

¹⁴⁰ Case COMP/C-3/37.990—*Intel* at para 866.

¹⁴¹ Case COMP/C-3/37.990—*Intel* at paras 1635–36.

In sum, the same could be said about *Intel* as about *Deutsche Post*: the rebate schemes at issue may very well be abusive, but the lack of an MES examination invites doubts about the finding of abuse.¹⁴² The Guidance Paper devised the contestability and non-contestability distinction to introduce the AEC rationale for rebates analyses, but the result is compromised because this distinction ignores the cost-saving effect of scale economies. This calls for an integration of MES into the Commission's AEC-based abuse assessments. But before that, the MES concept interacts with the dominance premise.

B. MES and the Special Responsibility Concept

As discussed in Sections IV.A.2 and IV.A.3, we should delineate cost advantage from incumbency advantage. A cost advantage, understood as superior production efficiency, is attainable as much by an as-efficient competitor as by the incumbent, unless the latter is using incumbency advantage to prevent the former from achieving it. This is where MES becomes useful: it represents the minimum cost advantage that an entrant¹⁴³ should be allowed to achieve so they can prove they are indeed as-efficient. Thus, the special responsibility concept can be focused on 'a dominant firm's obligation not to impede an entrant from reaching MES'.

The ratio of the MES size to the relevant market size varies in different settings. This shows a way for Article 102 to account for the tricky fact that different incumbents, albeit all qualified as dominant firms in their individual circumstances, likely vary in their quantitative levels of ability to foreclose competition. As the ratio increases, it becomes less feasible for an entrant to counteract an exclusionary scheme because the incumbency advantage gets strengthened. For example, in a setting where MES takes up 20 percent of the market demand, the incumbent's foreclosure of 70 percent of market demand would still leave room for an as-efficient entrant. However, in a setting where the ratio becomes 40 percent, the 70 percent-foreclosure would effectively prevent an as-efficient entry.¹⁴⁴ Therefore, the greater the MES in a defined market, the tighter the control should be on the incumbent's exclusionary ways of entrenching its position. In that sense, MES gives content to the notion that the greater the dominance market power, the greater the 'special responsibility'.¹⁴⁵

Along this line, a sliding scale of special responsibilities could be formulated under the 'all circumstances' analytical framework, on account of the MES size in relation to the market size in individual cases. Take for example a stylized scenario: if the MES takes up 30 percent of the maximum market demand, then, in the presence of an entrant, a monopoly incumbent would be allowed exclusive dealing with up to 70 percent of the market demand. But if the MES is 40 percent, the percentage for lawful exclusivity becomes 60 percent at most. If the MES is 50 percent, exclusive dealing should not be allowed altogether, because otherwise there would be no contestability left. But of course, this is only a basic special responsibility. As a rival reaches MES and gains a foothold, the special responsibility becomes more general, implementing a proportionality principle applicable to schemes that enhance or exploit own efficiencies but raise rivals' costs.¹⁴⁶

Let us revisit the *Deutsche Post* case. Suppose the 100-million-parcels-a-year figure was empirically solid evidence of a quantifiable, large MES size in that market.¹⁴⁷ This prompts the question of how many ('X' million) parcels per year the entire market had demanded. The fact that the incumbent had consistently held an above-85 percent market share would be relevant

¹⁴² Case T-286/09 RENV *Intel*, EU:T:2022:19, paras 202–56, where the General Court undertakes a review of the Commission's evidence that puts the contestable share at 7.1 percent.

¹⁴³ Here 'an entrant' means a rival that faces an incumbent and does not yet reach MES.

¹⁴⁴ Elhauge, *supra* note 3, at 324.

¹⁴⁵ Cf. by analogy, Case C-549/10 P *Tomra*, ECLI:EU:C:2012:221, para 39.

¹⁴⁶ See *supra* text to note 55.

¹⁴⁷ For the relevant case facts, see *supra* notes 124, 125, and accompanying text.

but inconclusive for determining X, since the quasi-monopoly incumbent might have been pricing supra-competitively, causing certain demands suppressed. If a solid calculation yields an X number, then we get $100/X$, which would be the *least* proportion of market demand that rivals should not have been foreclosed from. This inquiry would contribute to a more robust abuse assessment by taking a nuanced account of the market power from which the abusiveness is sourced.

C. MES and Competition on the Merits: The Case of Digital Platform Self-Preferencing

Self-preferencing represents an emergent cluster of abuse cases. The backdrop is that of the platform economy characterized by significant direct and indirect network externalities that result in ‘winner takes all/most’ markets whereby the ‘winners’ become and remain so because of their access to ‘Big Data’.¹⁴⁸ As exemplified in *Google Search (Shopping)*, self-preferencing is not presumptively abusive in general.¹⁴⁹ It could be a dominant firm’s efficiency-based attempt to exploit and explore the economies of scale and scope, but abusiveness would arise if the exploitation or exploration came at a disproportionate expense of rival efficiency undercutting. Also, particular circumstances may warrant conditional presumptions of abusiveness.¹⁵⁰ This calls for a clearer test for delineating the potential abusiveness.

For discussion relevance, we focus on a scenario of self-preferencing being used by a dominant platform operator to foreclose rivals in a downstream *platform market*.¹⁵¹ We propose an MES-based two-step test: first, assessing whether the downstream market can accommodate at least two firms to reach MES;¹⁵² second, assessing whether the conduct impeded a rival from reaching MES (or undermined a rival’s efficiency to the extent below MES).

1. Step One

To start with, the very fact that a digital market takes the shape of a platform may suggest the presence of a large MES so a tendency toward a natural monopoly structure.¹⁵³ The large MES stems predominantly from the positive network effects, namely economies of scale on the demand side of a (platform) market.¹⁵⁴ This contrasts with supply-side¹⁵⁵ scale economies, which may have a strong presence in some digital platform markets and imply that successful entry/expansion would have to pivot on non-trivial investment.¹⁵⁶ When a market’s large MES

¹⁴⁸ Marc Bourreau, Alexandre de Stree & Inge Graef, *Big Data and Competition Policy: Market Power, Personalised Pricing and Advertising*, CERRE Project Report (16 February 2017), 30, https://cerre.eu/sites/cerre/files/170216_CERRE_CompData_FinalReport.pdf.

¹⁴⁹ Commission Decision of 27 June 2017 (Case AT.39740—Google Search (Shopping)) C(2017) 4444 final, paras 649, 652.

¹⁵⁰ Article 6(1)(d) of the Proposal for a Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act) COM(2020) 842 final, 15 December 2020.

¹⁵¹ If we analogue self-preferencing to tying, this downstream market would be the tied product market. The focus on a downstream *platform market* is because the platform two-sidedness yields an additional source of revenue that the upstream incumbent can appropriate only by monopolising the downstream market, thus incentivising the incumbent to take vertical exclusionary actions. By contrast, if the downstream market were a standard demand–supply one featuring the same group of consumer buyers from the upstream market (for example, a retail toy market downstream to the Amazon marketplace), then according to the ‘single monopoly profit’ theory advanced by the Chicago School, monopolising the downstream market would have brought no additional profit. See Jay P. Choi, *Tying in Two-Sided Markets with Multi-Homing*, 58(3) J. IND. ECON. 607, 609 (2010); Daniele Condorelli & Jorge Padilla, *Harnessing Platform Envelopment in the Digital World*, 16(2) J. COMPETITION L. & ECON. 143, 157 (2020).

¹⁵² This denotes assessing the size of the MES as well as the size of the relevant market.

¹⁵³ Gregory J. Werden, *Network Effects and Conditions of Entry: Lessons from the Microsoft Case*, 69(1) ANTITRUST L. J. 87, 89–91 (2001).

¹⁵⁴ NICOLAS PETIT, *BIG TECH AND THE DIGITAL ECONOMY: THE MOLIGOPOLY SCENARIO*, 76 (Oxford: Oxford University Press, 2020). See also European Commission, *Competition Policy for the Digital Era. A report by Jacques Crémer, Yves-Alexandre de Montjoye & Heike Schweitzer* (2019) 55.

¹⁵⁵ Note that the two (user) sides of a platform are different from the two (supply and demand) sides of a (platform) market.

¹⁵⁶ For example, content-for-attention platforms like Spotify enjoy increasing returns to scale in supply, as the marginal cost of supplying content to users is negligible. Nonetheless, in digital platform markets, the contribution of supply-side scale

derives mainly from the demand side, directly challenging the incumbent would be difficult for an intended entrant, but there is a promising alternative: leveraging user bases from a market where the entrant already holds incumbency to the market at hand. This points to the competitive strategy of ‘platform envelopment’,¹⁵⁷ which hinges on the efficiencies deriving from the demand- and supply-side economies of scope in operating across platform markets.¹⁵⁸ Demand-side scope economies manifest as the complementarity of different platform services to a given user group, whereas supply-side ones point to the existence of common input (such as user data). But to be clear, a platform market does not necessarily feature strong network effects.¹⁵⁹

Subsequently, defining the size of a platform market requires a context-specific account of the network effects and user behaviour at hand. Take for example the *Google Search (Shopping)* case. The market where the alleged exclusion took place was defined as a specialized search platform market that features consumers and advertisers on each side.¹⁶⁰ In that light, the fact that consumers tend to single-home based on their perceptions of who offers the highest-quality search service¹⁶¹ denotes that the market is unlikely to develop naturally towards a complete monopoly for two reasons. First, consumers’ perceptions are not uniformly objective, resulting in a landscape of somewhat heterogeneous demand preferences. Second, consumers’ single-homing incentivises advertisers to multi-home.¹⁶² Both factors help maintain the multiplicity of platforms in the market.¹⁶³ Therefore, in case circumstances like *Google Search (Shopping)*, the first step of the test would conclude that the market can indeed accommodate at least two MES firms.

2. Step Two

Upon assessing the conduct, it is worth identifying and nuancing the foreclosure of two types of rivals, set apart by the self-preferencing scheme’s time of implementation: (1) the ones that had been in the market before the self-preferencing scheme and had reached MES but regressed below it after the self-preferencing; (2) the ones that had attempted or managed to enter the market after the self-preferencing scheme but had never reached MES. Regarding the first type, we ask why they fell short in using their incumbencies and cost advantages to prevent the entry/expansion attack from the accused platform operator. Regarding the second, we ask why they failed to capture the demand-side scale economies in that market, which would have helped them ascend to a dominant or even monopoly position. If the self-preferencing was the reason for either, it would likely be AEC-exclusionary.

economies to the MES size (and consequently to market structure) is no comparison to that of the demand-side ones, as observed in Bruno Jullien & Wilfried Sand-Zantman, *The Economics of Platforms: A Theory Guide for Competition Policy*, 54 INF. ECON. POLICY 1, 3 (2021).

¹⁵⁷ Thomas Eisenmann, Geoffrey Parker & Marshall Van Alstyne, *Platform Envelopment*, 32(12) STRATEG. MANAG. J. 1270, 1270–71 (2011).

¹⁵⁸ Condorelli & Padilla, *supra* note 151, at 144.

¹⁵⁹ Edward Iacobucci & Francesco Ducci, *The Google Search Case in Europe: Tying and the Single Monopoly Profit Theorem in Two-Sided Markets*, 47 EUR. J. L. ECON. 15, 40 (2019).

¹⁶⁰ More specifically, it was ‘the market for comparison shopping services’, which relies on selling ad space for revenue to compensate the free search service. Thus, the two platform sides are taken by consumer users and online-search advertisers, respectively. See Case AT.39740—Google Search (Shopping) at paras 191, 200.

¹⁶¹ Consumer users of search services care about service quality rather than network effects, thus displaying a tendency to single-home on a platform that they perceive as having the highest service quality. This is confirmed by the Commission’s finding that consumer multi-homing is infrequent in the general search service market. By analogical reasoning, the same applies to the specialised search service market. See Case AT.39740—Google Search (Shopping) at paras 306, 312, 315.

¹⁶² This is because advertisers value network effects rather than the platform service quality. They seek to access as much consumer attention as possible from across a search service platform, and thus would tend to multi-home when consumers are single-homing on different platforms.

¹⁶³ Jullien & Sand-Zantman, *supra* note 156, at 3–4.

The AEC exclusion would work through raising rivals' costs, for example by making it costlier for them to obtain access to data.¹⁶⁴ This could happen in a platform market when the two sides of users do not overlap perfectly with those of the platform market from which market power is leveraged. For example, it was suggested that the self-preferencing in *Google Search (Shopping)* may indeed be anticompetitive because, by letting Google's specialized search service occupy the most visually prominent space in the general search results, it helped nudge a significant portion of Google's general search users towards its specialized search service. Consequently, Google was able to take—through indirect network effects—a significant portion of the specialized-search advertising business from rivals.¹⁶⁵ Here, the consumer user bases of general and specialized search services overlap, but the revenue-streaming advertiser bases do not. The rivals would be restrained from counteracting the self-preferencing, as they could not effectively use incentive programs like rebates to persuade consumers from heeding and clicking into the visually prominent search results.¹⁶⁶

Notably, firms being prevented from reaching MES is a sufficient but not necessary condition for AEC exclusion.¹⁶⁷ Thus, the inapplicability of this MES-based test does not automatically exonerate a self-preferencing scheme. For these scenarios where the MES is inapplicable, we advise context-specific analyses that follow the AEC rationale.

D. Compatibility with the Case Law

Some aspects of the case law may not be *prima facie* hospitable to the proposed MES test. The Court of Justice held in *Tomra* that the Commission is obliged to specify neither (1) the level of dominance nor (2) a precise threshold of foreclosure before finding abuse, thus rendering the MES test superfluous.¹⁶⁸ But this standpoint was adjusted in *Intel*. The Court of Justice clarified that the Commission would become required to analyze these two issues if the defendant submits evidence-supported counterarguments in the enforcement procedure.¹⁶⁹ This implies that the Commission may need an MES-based analysis after all, even if just for backup support.

Additionally, we argue that opting out of the MES test risks enforcement errors, even though it may save enforcement costs in the short term.

First, in the two-part Article 102 paradigm, the level of dominance may be irrelevant after establishing the dominant position, but it would be relevant for the abuse assessment under the premise that (1) finding abuse is about identifying AEC-exclusionary effects,¹⁷⁰ and (2) such effects flow from the at-play market power, not the form of the conduct.¹⁷¹ The relevance of dominance levels to assessing abuse is recognized in *Post Danmark II*, where the Court of Justice found a causal link between the extent of Post Danmark's dominant position and the anticompetitive effects in question.¹⁷² In that light, the proposed MES test is also aligned with *Post Danmark I*, as it offers a way to systematically account for market power, thereby responding to the need articulated in *Post Danmark I* to consider 'all the circumstances' when adopting the AEC rationale.¹⁷³

¹⁶⁴ Data is non-rivalrous, but the willingness of consumers to surrender their data may well be limited. See Inge Graef, *Market Definition and Market Power in Data: The Case of Online Platforms*, 38 *WORLD COMPETITION* 473, 479 (2015).

¹⁶⁵ Iacobucci & Ducci, *supra* note 159, at 29–30, 35–36. The fact that advertisers multi-home would not protect these rivals from losing revenue if advertisers pay rents to platforms on a per transaction basis rather than a subscription basis.

¹⁶⁶ Iacobucci & Ducci, *supra* note 159, at 37.

¹⁶⁷ See *supra* notes 72, 73, and accompanying text.

¹⁶⁸ Case C-549/10 P *Tomra*, ECLI:EU:C:2012:221, paras 38, 39, 46, 48.

¹⁶⁹ Case C-413/14 P *Intel Corp v European Commission*, EU:C:2017:632, paras 138, 139.

¹⁷⁰ See *supra* Section II.B.3.

¹⁷¹ See *supra* text to note 96.

¹⁷² Case C-23/14 *Post Danmark II*, EU:C:2015:651, paras 39–42.

¹⁷³ Case C-209/10 *Post Danmark I*, EU:C:2012:172, paras 22, 26, 38–39.

Second, there seems to be a concern for false-negative enforcement errors underlying the ‘no need to determine a precise threshold of foreclosure’ *Tomra* ruling, as the Court of Justice emphasized that the dominant firm should not dictate the extent of market contestability and instead competitors should be entitled to compete for the entire market.¹⁷⁴ To this, we reiterate that ‘preventing a rival from reaching MES’ is a sufficient but not necessary condition for finding abuse according to the AEC rationale.¹⁷⁵ In other words, the proposed MES test focuses on situations where there are no seemingly as-efficient competitors and it elaborates the AEC rationale largely outside the bounds of price–cost comparisons. It therefore complements AG Kokott’s Opinion to *Post Danmark II* that ‘an AEC test’, concerned only with ‘a price/cost analysis’, is not always needed for finding abuse.¹⁷⁶ Moreover, the assumption that an incumbent can make a proportion of the market consistently non-contestable is robust only in a scenario of near-monopoly featuring product differentiation.¹⁷⁷ When entry attempts happen on a continuous basis and the market is viewed as evolving, giving each entrant the opportunity to reach MES would effectively disable the incumbent(s) from dictating market contestability. It would also be a necessary step to entitle the rivals to compete for the entire market in the near to longer-term future.

V. CONCLUSIONS

While the case law under Article 102 has consistently held that abuse is an objective concept, its antithesis—competition on the merits—is under-explained in light of this objective nature. Consequently, there is the intuitive but ultimately misleading tendency of interpreting CotM as some kind of innate propriety of competitive conduct. Another under-explained concept is the special responsibility of a dominant undertaking, which is intended to accentuate the dominance premise in the legal paradigm but suffers from a lack of specification. These two issues coalesce into a force that pulls the legal assessment focus away from whether the conduct *is* harmful in the particular dominance context to whether the conduct *can be* harmful in general and whether there is dominance in particular. This clashes with the more economics- and effects-based approach to the case-level application of Article 102.

The MES concept can ease this problem but has unfortunately been underestimated or even mischaracterized in law enforcement. This article takes stock of the literature on three proposed abuse tests from a viewpoint of decision theory and competitive process-protection. On that basis, it constructs an MES-based test for distinguishing abuse from CotM and giving content to the SR concept. This test complements the as-efficient-competitor rationale, which has been introduced into the legal framework, by supplying more analytical tools for non-pricing conduct and a way of reconciliation with the tenacious illegality presumptions. It gives the SR concept a sharper focus and a more dynamic interpretation. For delineating CotM, it provides a basis for developing clearer theories of harm *vis-à-vis* practices that have ambivalent effects such as self-preferencing. This test is also compatible with the current legal framework. It could be an opportune contribution to enhancing the robustness of *ex post* antitrust in digital markets when *ex ante* regulation has become the more popular recourse.

¹⁷⁴ Case C-549/10 P *Tomra*, ECLI:EU:C:2012:221, para 42.

¹⁷⁵ See *supra* notes 72, 73, and accompanying text.

¹⁷⁶ Opinion of AG Kokott in Case C-23/14 *Post Danmark II*, EU:C:2015:343, paras 70–74.

¹⁷⁷ There, the incumbent may choose to accommodate one or more small competitors, if its exploitative price leaves a chunk of heterogeneous demands unsupplied and accommodating entry is less costly than fighting it. However, it would unlikely allow any of them to reach MES if that would immediately jeopardise its ability to dictate contestability, which means there might well be anticompetitive schemes in place for maintaining this near-monopoly structure. See Julian Wright, *Naked Exclusion and the Anticompetitive Accommodation of Entry*, 98 ECON. LETT. 107, 108 (2008).