frontier economics

NORD strategies

An underlying theory of exclusionary abuse

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Introduction

The UK has recently seen an increase in the number of abuse of dominance cases being brought. These have been brought by competition authorities, by standalone individual complainants, and in particular by a large number of class representatives leading opt-in or opt-out class actions.

Article 102 TFEU and Chapter 2 CA98 (and other equivalent national provisions) suggest that abuse of a dominant position is a broad concept, capable of multiple interpretations. In the recent *Lovdahl Gormsen vs Meta* CPO Judgment, the CAT said "*as is well recognised, there is no exhaustive list of abusive conduct, and what constitutes an "abuse" is tricky to nail down, particularly in the new or marginal case. As Whish and Bailey say, "[i]t is not controversial to say that the meaning of abuse of dominance is controversial".*"[2]

While there are examples of actions that may be abusive, given in the text of Article 102 TFEU and equivalent provisions, these are not well-defined or precise, and the case law has made clear that these are not the only ways in which abuse could take place. It would therefore be helpful for dominant firms and complainants alike to have a sense of what types of behaviour might be considered abusive, beyond a "I know it when I see it" approach.

A high level split has been developed in the case law between "exclusionary abuses" – where a dominant firm is able to weaken to the structure of competition by foreclosing rivals, and so ultimately to increase its market power – and "exploitative abuses" – where a dominant firm is able directly to raise prices to customers substantially and persistently above the competitive level (or lower quality). In this article I focus only on exclusionary abuses.

This concern about the lack of an underlying principle for exclusionary abuse has been around for a while. In the early 2000s there was an debate seeking such an underlying principle. The

1 I am grateful to many of my colleagues for thoughts and comments, in particular Zoltan Biro, Simon Pilsbury, James Baker, and Carlotta Bonsignori; to John Davies of Compass Lexecon and Gunnar Niels of Oxera; and to Mr Justice Anthony Zacaroli. All errors and omissions are my own.

2 [2023] CAT 10 Dr Liza Lovdahl Gormsen v Meta Platforms, Inc. and Others ("**Lovdahl Gormsen vs Meta**"), CPO Judgment, para 18. I was the economic expert for Meta.

2009 document from the Commission "Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings" (the "**Article 82 Guidance Note**") proposed the "as efficient competitor" (AEC) test, dismissing the "profit sacrifice", "no economic sense" and "consumer welfare" tests that had been proposed as alternative underlying principles.[3] The merit of the AEC test was seen to be that competition law was about protecting the process of competition rather than protecting competitors, particularly inefficient competitors.

While the AEC test has been successfully employed in certain contexts such as retail margin squeeze, the case law has clarified it does not fit all circumstances. In particular, where there is a reason to think that there is no prospect that a rival to the dominant firm could be equally efficient, the use of the AEC test has been rejected by the CJEU (*Post Danmark II*) and UK CAT and Court of Appeal (*Ofcom vs Royal Mail*). Also, by its nature, the AEC test was typically thought applicable only to pricing abuses, rather than non-price abuses. The European Commission has recently has distanced itself from the use of the AEC test as a guiding principle applicable to all price-based exclusionary abuses in its "Amendments to the Communication from the Commission Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings" (the "**Amending Communication**").[4] However, it will continue to use the AEC in certain circumstances.

If the AEC test does not provide an underlying theory of exclusionary abuse of dominance, this leaves a gap in the understanding of what behaviours might constitute an abuse. This is troubling given that abuse is a flexible and expanding concept, with both authorities and private litigants seeking to class an ever-growing list of behaviours as being abusive.

To fill this gap, I propose the NORD test, where NORD stands for "Non-Replicable Dimensions". This test asks whether the behaviour of the dominant firm focuses competition on a materially important and non-replicable dimension of the dominant firm's offering, i.e. one that is a cause or consequence of its dominant position. If so, such behaviours – which I call "NORD strategies" – can potentially make it impossible or unreasonably difficult for rival firms to compete.

I believe that this approach has attractive features:

- It links the behaviour back to the features that underpin the existence of a dominant position. If there are no such features, then one might want to question the existence of the dominant position in the first place.
- It concentrates attention on the key question of non-replicability. If the behaviour of a dominant firm is replicable by a non-dominant firm, then it is not obvious that it should be

[3] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52009XC0224(01)&from=EN

[4] https://competition-policy.ec.europa.eu/system/files/2023-03/20230327_amending_communication_art_102_annex.pdf

considered to be abusive rather than competition on the merits. This approach therefore allows one to rule out certain behaviours as not providing a credible case for exclusionary abuse. This avoids a potential concern that authorities and complainant firms would simply identify behaviours by dominant firm that they don't like, and claim that these are abusive.

- It places front and centre the important question of why a particular strategy is non-replicable and over what time period. Some behaviours may be non-replicable in the short term, if a dominant firm has invested in innovation or quality improvements. But one would not necessarily want to consider these to be exclusionary abuses, in order not to discourage rivals from engaging in such investment and innovation themselves which might lead to them strengthening their market position. Understanding replicability at a deep level is therefore a critical component of dominance and abuse.

The NORD approach relates to setting out an underlying principle of exclusionary abusive behaviour, rather than a "how to" guide for assessing exclusionary abuses in all contexts. Different types of exclusionary abuse have been and should continue to be assessed in a manner appropriate to the behaviour in question, which will depend ultimately on what the non-replicable element of the dominant firm's position is and how this is being employed to distort competition. The existence of a NORD strategy is thus a *necessary* but not *sufficient* condition for exclusionary abuse – abuse would still need to be proven in each case.

I have tested the NORD concept against the types of exclusionary abusive behaviour that have been identified by competition authorities. I consider that it covers almost all existing examples of exclusionary abusive behaviour, although at times the analysis highlights a non-replicable dimension that is not obvious (but which itself is insightful as to the true source of any potential competitive concern).

The NORD approach does not flag price discrimination as an exclusionary abuse. I consider that this is a sensible outcome. All firms can, and many do, price discriminate, and price discrimination is common in both competitive and non-competitive markets. There is nothing inherently non-replicable about a price discrimination strategy, and so I do not think that price discrimination is a NORD strategy. As a result – and despite its appearance in the text of Article 102 TFEU – I do not consider that economic theory supports a view that price discrimination, by itself, is an exclusionary abuse. Rather, I would only consider price discrimination to be problematic from an exclusionary perspective where it is captured by another form of existing abuse (e.g. predation). This position is consistent with the approach that authorities and courts have taken in practice.

I have also explored situations where the courts have rejected allegations of exclusionary abuse. I find that the behaviour in question is not a NORD strategy. This suggests that the NORD approach is able both to rule in and rule out certain behaviours as being potentially exclusionary.

I propose the NORD approach as a valuable tool to understanding whether certain behaviours are Article 102 exclusionary abuses. In particular, the focus on the non-replicability of the

behaviour creates a direct link between the behaviour and the reason(s) why the dominant firm has a dominant position, and therefore provide a deeper understanding of the causes of dominance in specific situations where abuse is alleged, and the potential (anti-) competitive implications of the behaviour in question.

Article 102 TFEU

Article 102 TFEU, and similar national-level provisions such as Chapter 2 CA98 in the UK, prohibits dominant firms from abusing that dominant position. In this article, I focus for brevity on Article 102 TFEU (noting that it was previously Article 82 of the EC Treaty).[5] However, the argument applies in broadly the same fashion to all legal prohibitions of the abuse of dominance.

The text of Article 102 TFEU provides examples of behaviours that, if carried out by a dominant firm, are abusive. These are:

a. imposing unfair prices or trading conditions;
b. limiting production, markets or technical developments;
c. applying dissimilar conditions to equivalent transactions;
d. concluding contracts which contain supplementary obligations that have no connection with the subject of such contracts.

By itself, this list is not particularly helpful. It is both excessively specific (there may be other types of behaviour that are problematic) and insufficiently clear in practice (are these behaviours always to be proscribed? how should they be identified? Are there any mitigating circumstances? Etc.) As a result, the interpretation of Article 102 has been extensively developed and clarified through many different cases.

The case law and the Article 82 Guidance has identified that:

- dominant firms have a special responsibility not to impair competition[6];
- there are two broad categories of abuse:
  - exploitative abuses, where the dominant firm charges prices to customers which are too high, requires excessive contractual obligations, or provides insufficiently low quality (I do not discuss exploitative abuses further in this article); and
  - exclusionary abuses where the dominant firm acts in a way that reduces the ability of competitors to compete, ultimately leading to an increase in the dominant firm's

5 And earlier Article 86.

6 Article 82 Guidance, paragraph 1.

market power or the maintenance of existing market power against a counterfactual where this would be reduced[7];

- the aim of a prohibition against exclusionary abuse is to avoid the exclusion of competitors other than on the merits of the products or services they provide[8] and ultimately avoiding an adverse impact on consumer welfare;[9]
- what really matters is protecting an effective competitive process, rather than protecting competitors;[10]
- "*'anti-competitive foreclosure' occurs where effective access of actual or potential competitors to supplies or markets is hampered or eliminated as a result of the conduct of the dominant undertaking*";[11]
- "*vigorous price competition is generally beneficial to consumers… the Commission will normally only intervene where the conduct… is capable of hampering competition from competitors which are considered to be as efficient as the dominant undertaking*[12]*… competitors who deliver less to consumers in terms of price, choice, quality and innovation [may] leave the market*";[13]
- however, in certain circumstances a less efficient competitor may also exert a constraint;[14]
- abuse is a flexible concept, with Article 102 TFEU providing a framework for the identification of abuse overall, but with multiple types of behaviour potentially being caught by Article 102 TFEU, including at least the following:
  - predation[15];
  - tying[16];

[7] Article 82 Guidance, paragraph 6 and 7

[8] Article 82 Guidance, paragraph 6

[9] Article 82 Guidance, paragraph 19

[10] Article 82 Guidance, paragraph 6

[11] Article 82 Guidance, paragraph 20

[12] Article 82 Guidance, paragraph 23

[13] Article 82 Guidance, paragraph 6

[14] Article 82 Guidance, paragraph 24

[15] e.g. *AKZO Chemie v Commission ("**Akzo**"), Case 62/86, EU:C:1991:286, Tetra-Pak*. Article 82 Guidance para 63 et seq.

[16] e.g. *Google and Alphabet v Commission ("**Google Android**"), T-604/18, EU:T:2022:541*. Article 82 Guidance para 47 et seq.

  - bunding[17];
  - rebates[18];
  - artificially increasing the ranking of one's own downstream offering[19];
  - "pay for delay" agreements[20];
  - wholesale margin squeeze[21];
  - retail margin squeeze[22];
  - refusal to deal[23];
  - refusal to certify[24];
  - exclusive supply or purchasing contracts[25];
  - submitting knowingly false patent applications[26]; and
  - putting beyond use infrastructure used by competitors[27].
- potentially abusive behaviour needs to be looked at in its full economic context in order to understand whether it is abusive or not (i.e. there is an absence of per se prohibitions).[28]

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[17] e.g. Case T-201/04 Microsoft v Commission ("***Microsoft Windows Media Player***"). Article 82 Guidance para 47 et seq.

[18] e.g. Case 85/76 Hoffmann-La Roche & Co. v Commission [1979]("***Hoffmann-la Roche***"), *Intel Corp. v Commission, C-413/14 ("**Intel**")*. Article 82 Guidance, para 37-45.

[19] e.g. Case T-612/17 Google and Alphabet v Commission ("***Google Shopping***")

[20] e.g. Case T-691/14 Servier v. Commission ("***Servier***")

[21] e.g. CAT 27 1299/1/3/18 Royal Mail plc v Office of Communications ("***Royal Mail vs Ofcom***"). Article 82 Guidance para 75 et seq.

[22] e.g. Case C-52/09 TeliaSonera Sverige v Commission ("***Telia Sonera***"). Article 82 Guidance para 75 et seq.

[23] e.g. Case 7/97 Oscar Bronner v Mediaprint Zeitungs- und Zeitschriftenverlag, Mediaprint Zeitungsvertriebsgesellschaft and Mediaprint Anzeigengesellschaft *("**Oscar Bronner**")*. Article 82 Guidance para 75 et seq.

[24] e.g. CAT 20 Achilles Information Limited v Network Rail Infrastructure Limited ("***Achilles vs Network Rail***"). I was the economic expert for Achilles.

[25] e.g. *Hoffmann-la Roche*. Article 82 Guidance para 33-36.

[26] e.g. Case COMP/A.37.507/F3 — AstraZeneca v Commission ("***Astra Zeneca***")

[27] e.g. Case C-42/21P Lithuanian Railways ("***Lithuanian Railways***")

[28] e.g. Amending Communication para 3

Previous attempts to identify a guiding principle for exclusionary abuse

The list of potentially abusive behaviours identified above is long, and ever growing, as competition authorities and private litigants raise new concerns. However, the absence of a clear statement in the text of Article 102 TFEU setting out an underlying principle for the types of behaviour that constitute an abuse has led to a search by legal and academic commentators for such an underlying principle. “I know it when I see it” is an uncomfortable position. Firms are rightly concerned about the lack of legal certainty.

The Article 82 Guidance, published in 2009, sought to improve this position by developing a framework for identifying behaviour that would be caught by Article 82 (now Article 102 TFEU). The European Commission explored three different underlying principles that had been suggested in legal and academic commentary.

- **Profit sacrifice test/no economic sense test.** If a dominant firm engages in behaviour that is directly loss-making (as in predatory pricing, where the test relates to a dominant firm prices below average variable cost), this suggests that – given that the firm is assumed to be a profit-maximising undertaking – the behaviour in question is only being carried out because of its adverse impact on rivals, weakening them so that the dominant can increase its market power in the future.[29] The no economic sense test proposed by Werden (2006) is a broader variant of the profit sacrifice test.[30] It aims to identify conduct that “*would make no economic sense for the defendant but for the tendency to eliminate or lessen competition*".[31]

  Salop (2006) argues that these tests are not appropriate.[32] Both the profit sacrifice test and the no economic sense test are drawn from the predation literature, which was a common form of abuse alleged and explored in pre-1970s US antitrust.[33] However, while the profit sacrifice and no economic sense tests reflect well the characteristics of predation allegations (and perhaps one could characterise pay for delay cases and the “putting

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29 Bork, The Antitrust Paradox, 1978, p144; Ordover & Willig, An Economic Definition of Predation: Pricing and Product Innovation, 91 YALE LJ. 8

30 Gregory J. Werden, Identifying Exclusionary Conduct Under Section 2: The "No Economic Sense" Test, 73 ANTITRUST LJ. 413 (2006).

31 Salop (2006), p391, quoting the Department of Justice in the amicus brief in *Trinko*.

32 Salop, S., Exclusionary Conduct, Effect on Consumers, and the Flawed Profit Sacrifice Standard, 73 Antitrust L.J. 311-374 (2006).

33 See e.g. the review in Bolton, Brodley and Riordan, Predatory Pricing: Strategy Theory and Legal Policy, 1999, available at https://www.justice.gov/sites/default/files/atr/legacy/2006/10/30/218778.pdf

infrastructure beyond use" situation of *Lithuania Railways* in this fashion[34]), they do not encompass all other forms of abuse. There are examples of abuse that do not involve the dominant firm sacrificing profits – for instance, abuses that relate to raising rivals' costs (such as wholesale margin squeeze) can be profitable whether or not they lead to exclusion of rivals.[35]

- **Consumer welfare test.** Salop rejected the proposed profit sacrifice test and Werden's no economic sense test, and instead proposed a consumer welfare test. However, given that avoiding damage to consumer welfare is the underlying principle for all competition law, it does not seem to me that the consumer welfare test provides useful additional insights, beyond the observation that conduct that has an adverse effect on consumer welfare should be of concern.[36] There are also practical considerations: under this approach, a full economic analysis would be required to carry out an assessment of the market and the conduct in question against a counterfactual, in order to determine whether there is a concern (which would be unlikely to assist with legal certainty). However, the aim of an underlying principle is to identify some salient features of exclusionary conduct that can be used to assess candidate behaviours of concern, without doing the full analysis. Finally, any time a dominant firm puts up prices, there is a reduction in consumer welfare, which suggests that application of a pure consumer welfare test would not really capture the specific issue of behaviours that are exclusionary.[37]

- **As efficient competitor ("AEC") test.** As discussed above, competition law is about protecting competition, not individual competitors. The AEC test takes this observation to be a guiding principle for the assessment of abuse of dominance: if a firm that is as efficient as a dominant firm cannot survive in the face of the dominant firm's behaviour, that is a cause for concern. The EC appears to use the AEC test as a guiding principle for the assessment of pricing conduct in its Article 82 Guidance, although it has recently backed away from this position in its Amending Communication.[38]

  The AEC test does not capture all potential types of exclusionary conduct set out above. It has been employed in cases where the abuse relates to pricing practices. However, it does not straightforward to apply the AEC test to non-price abuses (e.g. refusal to deal,

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34 For instance, it does not make economic sense for an incumbent monopolist to pay rivals not to enter the market unless that weakens the competitive constraint that the monopolist faces in the future sufficiently to outweigh the immediate loss of profits.

35 See Salop (2006), p315-316

36 I think that the correct use of the consumer welfare test is as an alternative (and preferable) standard to the total welfare standard, i.e. one where firms' profits are also considered.

37 Another concern is that the direct effect of predation is that consumer welfare increases, with adverse effects on consumer welfare only arising if the predation was successful. Unsuccessful predation (or incomplete predation) would therefore not be captured by the consumer welfare standard. I thank Simon Pilsbury for this example.

38 Article 82 Guidance, para 23 and 67; Amending Communication, para 2.

pay for delay, artificial ranking increase, and so on). Even within the set of pricing abuse cases, the case law shows that it is not applicable in all cases. For instance, where it is not realistic that there can be an as efficient competitor, the as efficient competitor test is overly permissive to the dominant firm.[39] Moreover, the Article 82 Guidance and the Amending Communication also recognise that there are circumstances where the competitive constraint provided by less efficient firms is important.[40] This is particularly the case where the dominant firm has a monopoly or near monopoly position.[41]

In conclusion, therefore, none of these three tests provides an underlying principle for assessing whether a new type of behaviour is an exclusionary abuse, beyond the extremely high level – and therefore unsatisfactorily impractical – proposition set out in the consumer welfare test of Salop.

Towards a guiding principle – NORD strategies

It is unsatisfactory that we are still in a world of "I know it when I see it" in terms of exclusionary abuse, given that the allegations of such abuse in both public enforcement and private litigation are both numerous and constantly evolving. I therefore propose an alternative approach to establishing an underlying principle of exclusionary abuse against which existing and new behaviours can be judged.

NORD strategies – a definition

A behaviour or strategy of a dominant firm can be an exclusionary abuse if it is a NORD strategy – where NORD stands for "Non-Replicable Dimensions". The NORD definition identifies that competitive strategies of concern are those where the dominant firm uses the advantages that underpin its dominant position, and so cannot be replicated by rivals, to compete.

I identify that NORD strategies "can be" exclusionary abuses because I consider that the existence of a NORD strategy is a necessary but not a sufficient condition for exclusionary abuse, It would still be critical in each case to determine whether the behaviour was problematic in that specific market context. In contrast, a strategy that is fully replicable by rivals is not NORD, and so cannot be an exclusionary abuse of dominance.

The NORD approach is rooted in the concept of dominance. If a firm has a dominant position, this must be because it has one or more advantages that cannot be replicated by rivals, and

39 Post Danmark 2, recently reconfirmed in Ofcom vs Royal Mail in the UK.

40 Article 82 Guidance para 24, Post Danmark 2, recently reconfirmed in Ofcom vs Royal Mail in the UK; Amending Communication, para 2.

41 Salop (2006), p328.

which translate into a significant market share, i.e. it benefits from "non-replicable dimensions" of competition. A NORD strategy is one where the dominant firm uses its position to ensure that rivals are forced to compete directly with the non-replicable dimension(s) of the dominant firm. One could think of this approach as operationalising the concept of competition on the merits; competition on the merits is the reverse of NORD.

The application of the NORD approach is best illustrated with (stylised) examples. In each case, these are provided to demonstrate how the behaviour can be interpreted as a NORD strategy, rather than saying that all examples of such behaviour are necessarily abusive.

- **Tying (and bundling).** The dominant firm has a monopoly over product A, which all customers want, and also produces product B, where it faces competition. It then ties together product A and product B. All customers purchase product A and receive product B as well. Consumers are unwilling to buy both product B from the dominant firm and competing versions of product B offered by standalone providers. Standalone providers of product B cannot compete and are excluded. This focuses competition on the non-replicable dimension of the dominant firm, namely product A. Pure bundling can operate in a similar fashion. *Non-replicable dimension: the tying (monopoly) product.*

- **Rebates.** The dominant firm has a non-replicable offer such that customers need to purchase at least X% of their purchases from them. By employing a retroactive rebate scheme, whereby customers receive a discount across all purchases if they buy at least X% from the dominant firm, rivals find it extremely costly to expand beyond 1-X% of each customer's requirements, as to do so requires compensating customers for the full cost of the discount. *Non-replicable dimension: the minimum share of each customer's requirements that cannot be contested.*

- **Predation.** The dominant firm charges a price below average variable cost.[42] Rivals can also charge a price at this level, and so it is not the pricing element that is non-replicable. Rather, the dominant firm is essentially focusing competition on its deep pockets[43] – it can charge these prices because it can afford to make losses for a significant period of time,

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[42] There is significant complexity in working out what AVC is in any particular situation, the relevant time period, whether a product is an introductory offer, and so on. I abstract from these complexities here to focus in on what the true non-replicable feature is for a predation allegation. One would need to take them properly into account in any specific situation.

[43] Note that there may be situations where at least some rivals have pockets that are as deep or deeper and hence this may not be a non-replicable dimension in practice. For instance, if there is a large firm in (huge) market A, which enters (small) market B, the existing dominant firm that operates in market B only may well have shallower pockets than the entrant. The deep pockets interpretation works well for "classic predation" (e.g. OFT vs Cardiff Bus (OFT No. CA98/01/2008 "***Cardiff Bus***"), where a dominant bus incumbent acted in a predatory fashion against a small entrant).

while the rival cannot.[44] *Non-replicable dimension: the deep pockets of the dominant firm (within the context of a loss-making pricing strategy).*[45]

- **Artificial ranking increase.** The dominant firm provides a product that ranks the competitive offerings of firms in response to queries from customers. It applies this ranking in a non-objective way to boost its own competitive offering at the expense of rivals. *Non-replicable dimension: control of ranking algorithm.*

- **"Pay for delay" (reverse payment settlement) agreements.** A patent holder faces potential litigation around the validity of the patent, which if it is successful would allow generic entrants to replicate the patent holder's technology and so take the vast majority of the patent holder's market. The patent holder seeks to buy off potential entrants by paying them a (possibly substantial) sum of money. It is better for the entrant to accept this amount than fight the litigation, given that it is more profitable to share some of the monopoly profits than to be one of multiple entrants (particularly in a homogenous product industry). *Non-replicable dimension: existing incumbent position protected by the patent.*

- **Wholesale margin squeeze.** An infrastructure owner – typically one that is regulated, and hence has to provide access at a particular price – faces competition from a rival, who is gradually building a rival infrastructure network. Customers want full market coverage and do not want to "mix and match" from multiple providers, so to be credible the rival needs to purchase access from the incumbent. This provides the incumbent with the ability to influence or control (depending on the extent of regulation) the rival's costs and hence to influence or determine whether it will be able to survive. *Non-replicable dimension: the full market coverage of the existing network.*

- **Retail margin squeeze.** A monopoly infrastructure owner (wholesale level) also provides services over that network (retail level). It is required by regulation to provide wholesale access to all retailers. It sets wholesale prices at a level that means that rival retail offerings cannot make a profit, either through price discrimination, or through making a loss at the retail level.[46] *Non-replicable dimension: the wholesale infrastructure (in either case, although in slightly different ways).*

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44 The modern economic interpretation of predation argues that this can be a credible strategy in situations where there are capital market imperfections and incomplete information for investors.

45 Another NORD interpretation of predation is that the dominant firm benefits from developing a reputation for extreme aggression. This is motivated by the fact that it has a high existing market share to protect while entrants do not have such an existing position. Here the non-replicable dimension is the high existing market share (and again, not the low price, which is replicable).

46 The AEC test has been used on several occasions in relation to retail margin squeeze cases (potentially with adjustments for the non-replicable efficiencies of the dominant firm, see *Telia Sonera)*. I think this is an appropriate situation for use of the AEC test. The NORD approach can therefore be thought of as a higher level overriding principle with the AEC test one of several approaches that can be used to assess specific types of potentially abusive behaviour. In that sense, the

- **Refusal to deal.** A monopoly upstream infrastructure provider refuses to provide access to a critical input for downstream competition.[47] *Non-replicable dimension: the upstream infrastructure.*

- **Refusal to certify.** The dominant firm sets the quality standards that its own offering and third parties engaging in competition for a certain set of goods and services (e.g. to provide services on its own infrastructure) need to meet. It either refuses to certify third parties outright, or applies its rules in a discriminatory fashion to the exclusion of rivals. *Non-replicable dimension: control of certification process.*

- **Exclusive supply or purchasing contracts.** A dominant firm signs up key customers to take it or leave it long-term exclusive contracts. Rivals can offer similar contracts, but either cannot get access to the customers because they are not yet in the market, or cannot credibly supply the whole of a customer's requirements. *Non-replicable dimension: i) the fact that the dominant firm's market position gives it access to customers more quickly and/or ii) that only the dominant firm can serve the whole of a customer's requirements.*

- **Submitting knowingly false patent applications.** An monopoly incumbent with a legitimate patent coming to the end of its life submits an additional patent request which is essentially the same as the existing patent but differently presented (i.e. it contains no genuine inventive step). The patent office waves this through without sufficient scrutiny, leading to the effective extension of the initial patent by several years and the delay of generic entry. *Non-replicable dimension: the initial patent.*

- **Putting beyond use infrastructure used by competitors.** The dominant firm is a monopoly provider of wholesale infrastructure. It uses part of that infrastructure to sell services, but faces a rival who is also planning to use that infrastructure. It puts the relevant infrastructure out of use to eliminate the rival.[48] *Non-replicable dimension: the ownership of the infrastructure.*

There may well be other potential abuse of dominance strategies which are not covered in the list above. However, hopefully these examples demonstrate that a credible abuse case needs to be rooted in a commercial strategy that utilises the non-replicable dimension of the incumbent.

One area which I do not think is captured by the NORD approach is price discrimination. This is because all firms can in principle price discriminate, in the sense of achieving different

NORD approach can be thought of equivalent to an operating system, with the AEC test like an app that can be used in certain situations. (I am grateful to James Baker for this analogy.)

[47] I would characterise the Bronner test of "indispensability" in an outright refusal to deal scenario as being a "lower level" test, analogous to the use of the AEC test in retail margin squeeze cases.

[48] This is like an extreme version of a refusal to supply strategy.

margins on different products, and price discrimination is rife in competitive markets and often economically efficient. For instance, there are large numbers of lunchtime sandwich shops within a short distance of my office. These employ a range of price discrimination strategies (e.g. bundling, two-part tariffs, student discounts) despite in many cases being single outlets. These are likely to be output enhancing and it is implausible that they have any anti-competitive consequences.

I consider this outcome to be a strength, not a weakness, of the NORD approach. I do not think that price discrimination should be considered to be a category of abuse of dominance (notwithstanding the text of Article 102 TFEU), for the reasons above. Instances of price discrimination should not be of concern unless they fall into one or more of the other categories (e.g. predation, wholesale margin squeeze, retail margin squeeze, etc.) – in which case they can be adequately dealt with under those headings. No standalone concern about price discrimination is therefore necessary.

Even though the text of Article 102 TFEU does explicitly mention price discrimination, the case law would tend to suggest a view closer to this interpretation. In the recent *Ofcom vs Royal Mail* case in the UK, Ofcom characterised Royal Mail's behaviour (changing access prices for wholesale rivals) to be abusive price discrimination.[49] However, the arguments on appeal demonstrated that Royal Mail's behaviour could equivalently be characterised as a wholesale margin squeeze, and much of the debate was conducted as if that was how the case should have been made. In *Irish Sugar*, abusive price discrimination was alleged, but essentially as an adjunct to an allegation of predation through selective price cutting.[50]

Lastly, it is also possible to use the NORD approach to rule out behaviours as being exclusionary abuses. In *Churchill Gowns & Ors. Vs Ede and Ravenscroft* ("E&R") & Ors, the Claimants argued that it was an exclusionary abuse for E&R, which was alleged to be dominant, to enter into agreements to supply academic gowns to universities on exclusive or quasi-exclusive terms.[51] However, the terms of those contracts (including their exclusive nature) were set by and under the control of the university in question. The NORD approach would ask: is there anything non-replicable about a dominant firm bidding for and undertaking a contract (if the bid was successful) where the contents of the contract are set by a third party? This is (to say the least) not obvious. The CAT found that "*Churchill have failed to establish that any foreclosure which exists in the B2C market (or model) is a consequence of any abuse of dominance by E&R. We reach this conclusion primarily because we are not satisfied* ***that it is E&R's conduct*** *– as opposed to the unilateral conduct by universities responding rationally to incentives that are inherent in the B2B market – that results in Churchill (or anyone else) being unable to develop an effective B2C business*" (emphasis

49 Ofcom vs Royal Mail, https://www.catribunal.org.uk/sites/cat/files/2019-11/1299_RoyalMail_Judgment_Non_Confidential_Version_%5BCAT_27%5D_121119.pdf

50 Irish Sugar, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:61997TJ0228&from=EN, at para 105.

51 I was briefly involved for Ede and Ravenscroft in this case.

added).[52] The CAT's conclusions are therefore consistent with the NORD approach, in this case in identifying that a specific behaviour is not abusive.

Commentary

Several points emerge from this analysis.

- First, the non-replicable dimension is not always obvious. For instance, any firm can in principle offer a long-term exclusive contract. The non-replicable dimension is the timeliness, attractiveness or credibility of such an offering. Similarly, any firm can in principle offer the same discount structure as an incumbent (when considering prices alone). The question is again whether there are reasons why customers would not find rivals' offers to be credible, e.g. whether there is some aspect of customer demand that is non-contestable for the rival but available to the dominant firm.
- Second, the NORD approach highlights that one of the most important questions in assessing whether any particular behaviour is abusive relates to whether there genuinely is a non-replicable dimension, and if so why. For example, the discussion about rebates identifies that the true non-replicable dimension is the inability of rivals to compete for the whole of a customer's requirements. The question then is why a rival cannot compete for the entire contract. If it can, it can offer the same discount structure as the incumbent, and it is not disadvantaged.
- Third, the NORD approach creates an important link between the features that make a firm dominant, and the nature of the abusive strategy. It makes sense that there should be a correspondence between the two: it is not problematic to have a dominant position but to compete on the merits (which in the NORD interpretation involves avoiding competing on the features that can't be replicated).
- Fourth, there is an important time and cost dimension to the question of non-replicability (and so both dominance and abuse). A firm that has invested sums of money and incurred risks to develop a better quality product than rivals may well have a high market share, and a product offering that cannot be matched in the short run; it then competes on this higher quality. Is this a non-replicable dimension? In the short run, maybe; but in the long run, rivals could (and perhaps should) themselves invest to develop new and higher quality products (and hence at this level the behaviour is replicable, which also leads to questions about whether the firm should be considered dominant in the first place). There would be an adverse effect on the incentive to invest for the dominant firm and for rivals if non-replicability were viewed through too short term a lens. Exactly where to draw the line will be a case by case matter and is a critical issue, upon which I think the NORD concept correctly focuses attention.

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[52] CAT, Churchill Gowns & Ors. Vs Ede and Ravenscroft & Ors., Para 88.

frontier economics

Beyond NORD

I have identified above that the existence of a NORD strategy is a necessary not a sufficient condition for exclusionary abuse. To demonstrate that exclusionary abuse is in fact occurring, one would need to go further to demonstrate exclusionary effect. I would include at least the following elements in the analysis:

- the NORD strategy must relate to an important aspect of competition;
- the NORD strategy must cover a substantial part of the market; and
- customers and competitors must not have obvious workarounds to the NORD strategy.

For instance, tying two products together that customers are not interested in purchasing together may well not make for an attractive offer to customers. Offering retroactive rebates on contracts that only account for a small percentage of the market are unlikely to lead to any material impact on competition (unless one can think of a reason why these customers are critically important to the future growth of a rival).

As a starting point, I would suggest that the standard approaches to assessing exclusionary effect should be employed – the NORD approach does not require these to be thrown out. For instance, (retail) margin squeeze can sensibly be assessed using the AEC test, potentially controlling for the impact of any of the non-replicable dimensions that favour (or disfavour) the dominant firm.[53] Predation can sensibly be analysed using a thoughtful interpretation of the AKZO AVC test.[54] And so on. The NORD approach is therefore a starting point for the analysis, rather than providing the answer in itself.

Conclusion

Many behaviours have been found to be abusive under Article 102 TFEU. However, while there is broad consensus about the existence of many types of abuse, the lack of a formal guiding principle means that it is not clear what the boundaries of Article 102 TFEU are, or how one might assess whether a new type of behaviour is abusive or not. Previous attempts at guiding principles have either been of narrow application, or so broad as to be unhelpful.

I propose the NORD test as a necessary (but not sufficient) condition for a type of behaviour to be an abuse. I consider that this approach is beneficial for numerous reasons. It creates a link between the reasons why a firm is dominant and the behaviour in question. It focuses

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[53] I think that it is more difficult to think of circumstances where the AEC test is appropriate for wholesale margin squeeze. This is because, in many circumstances, the wholesale level is the area where there is a non-replicable dimension (e.g. ownership of a single telecoms infrastructure) which will likely be very difficult if not impossible to control for. This is essentially the critique of the CJEU in Post Danmark II about the use of the AEC test in circumstances where it is not possible to conceive of an as efficient competitor existing.

[54] Which would need to cover the appropriate short- and long-run aspects of variable costs, whether there are issues such as introductory offers or the need to build a customer base in play, etc.

attention on important issues for the assessment of abuse. And it allows dominant firms, litigants and competition authorities to explore new types of behaviour, to see if there is a possibility that they could be abusive.