

**Unclassified****English - Or. English****19 May 2020****DIRECTORATE FOR FINANCIAL AND ENTERPRISE AFFAIRS  
COMPETITION COMMITTEE****Cancels & replaces the same document of 14 May 2020****Working Party No. 2 on Competition and Regulation****Lines of Business Restrictions – Background note****By the Secretariat****8 June 2020**

This document was prepared to serve as background note for Item 1 at the 69th Meeting of Working Party 2 on 8 June 2020.

*The opinions expressed and arguments employed herein do not necessarily reflect the official views of the Organisation or of the governments of its member countries.*

More documentation related to this discussion can be found at [www.oecd.org/daf/competition/line-of-business-restrictions-as-a-solution-to-competition-concerns.htm](http://www.oecd.org/daf/competition/line-of-business-restrictions-as-a-solution-to-competition-concerns.htm).

Please contact Mr Chris PIKE if you have questions about this document [Chris.PIKE@oecd.org].

**JT03461890**

## *Line of Business Restrictions*

### ***Background note by the Secretariat\****

*Line of business restrictions (LOBRs) are antitrust remedies or regulatory restrictions that limit the activities that a firm can undertake. They include separation restrictions ranging from structural to behavioural separation (accounting, functional or legal). However, there are also alternative behavioural restrictions such as mandating access, non-discrimination obligations and mandatory standards on portability and interoperability. LOBRs are used to address concerns that competition is likely to be prevented, restricted or distorted in a number of different ways. These include concerns that dominance is leveraged to exclude rivals in another downstream market, for example through discriminatory self-preferencing (equivalent to margin squeeze) or refusal-to-deal. The risk of such exclusionary abuses also arises from mergers that might make such conduct likely.*

*Each type of LOBR has enjoyed success in certain circumstances; the challenge is therefore identifying the right LOBR for the specific problem. For example, if the theory of harm is that access is being denied to an essential facility, and a loss of competition as a result of such an explicit refusal-to-deal is established, then the solution will need to focus on allowing access, and applying a duty-to-deal. Hence, the appropriate LOBR might include mandatory access on FRAND terms, or structural separation to achieve the same access.*

*In contrast, if the regulatory or antitrust concern is not that the firm refuses-to-deal, but that it deals on terms that foreclose through raising rival costs or predation (via some form of margin squeeze, or equivalently a merger leading to margin squeeze), then the solution (were one required) would not focus on mandating access. Instead, the response might be a non-discrimination obligation (without necessarily imposing a duty-to-deal on FRAND terms) or to mandate standards for portability and interoperability. Notably, in the case of digital platforms, it would appear that refusal-to-deal is not driving the concerns (thus far), and so imposing a duty-to-deal seems unlikely to be the right answer. Instead, the concerns appear to relate to foreclosure through self-preferencing that raises rivals' costs, meaning that non-discrimination obligations are the more likely LOBR.*

*Moreover, digital platforms are not natural monopolies in which competition cannot take place. Therefore, the approach should not be to write off the possibility of competition in platform markets and focus solely on preserving the possibility of competition downstream (or upstream) markets (as in regulated infrastructure monopolies). Instead, behavioural LOBRs including standards for portability and interoperability could facilitate competition within these markets (and thereby begin to resolve the foreclosure risk in downstream markets). However, it may nevertheless be sensible to reinforce these with further LOBRs, for example non-discrimination obligations, in these downstream (upstream) markets to preserve competition while competition in these 'core' markets is strengthened.*

---

\* This paper was written by Chris Pike of the OECD Competition Division, with the assistance of Takuya Ohno and comments from Antonio Capobianco (all from the OECD Competition Division).

## *Table of Contents*

<b>Line of Business Restrictions Background note by the Secretariat .....</b>	<b>2</b>
<b>1. Introduction: What are they and why are they used? .....</b>	<b>4</b>
1.1. What are Line of Business Restrictions? .....	4
1.2. Why are LOBRs used? .....	5
<b>2. Regulatory LOBRs .....</b>	<b>6</b>
<b>3. LOBRs as an antitrust remedy .....</b>	<b>9</b>
3.1. Margin squeeze .....	9
3.2. Refusal-to-deal and margin squeeze .....	11
3.3. Constructive refusal-to-deal and margin squeeze .....	13
<b>4. LOBRs as a remedy for vertical mergers .....</b>	<b>14</b>
<b>5. Are LOBRs required in digital markets? .....</b>	<b>16</b>
5.1. Does the nature of the data held by digital platforms necessitate an LOBR? .....	16
5.1.1. General search .....	17
5.1.2. Social Networks .....	18
5.1.3. Retail Networks .....	19
5.2. Does the nature of digital platforms necessitate an LOBR to protect competition in other markets? .....	19
<b>6. Should LOBRs be applied through antitrust or regulation? .....</b>	<b>24</b>
<b>7. Identifying appropriate and proportionate LOBRs .....</b>	<b>25</b>
7.1. Structural separation .....	25
7.2. Mandated access under FRAND terms .....	25
7.3. Non-discrimination obligation .....	26
7.4. Mandated standards for portability and interoperability .....	26
<b>8. Summary .....</b>	<b>28</b>
Endnotes .....	30
Bibliography .....	34

### **Figures**

Figure 1. Types of Line of Business Restriction .....	5
Figure 2. CMA illustration of hypothetical content interoperability .....	19

### **Boxes**

Box 1. Single Monopoly Profit theory .....	11
Box 2. Aspen .....	12
Box 3. Comcast/NBCU .....	15
Box 4. Google Search (Shopping) case .....	20
Box 5. Groceries Supplies Code of Practice (GSCOP) .....	22
Box 6. CMA interim report on the digital advertising market .....	23

## 1. Introduction: What are they and why are they used?

1. Line of business restrictions (LOBRs) are antitrust remedies or regulatory restrictions that can be used to limit the range of activities that a firm can undertake. They include separation restrictions ranging from structural separation to weaker forms of behavioural separation (accounting, functional and legal separation). However, there are also alternative behavioural restrictions including mandating access, non-discrimination obligations and mandatory standards on portability and interoperability. This paper will discuss each of these types of restriction.

2. LOBRs may be used by regulators or competition agencies to address concerns that competition is likely to be prevented, restricted or distorted in a number of different ways. These include concerns that dominance in one market, is leveraged and used to exclude rivals in another downstream or adjacent market, either through self-preferencing (margin squeeze), refusal-to-deal or bundling or tying. The risk of such exclusionary abuses also arises from vertical or conglomerate mergers that might make such conduct likely.

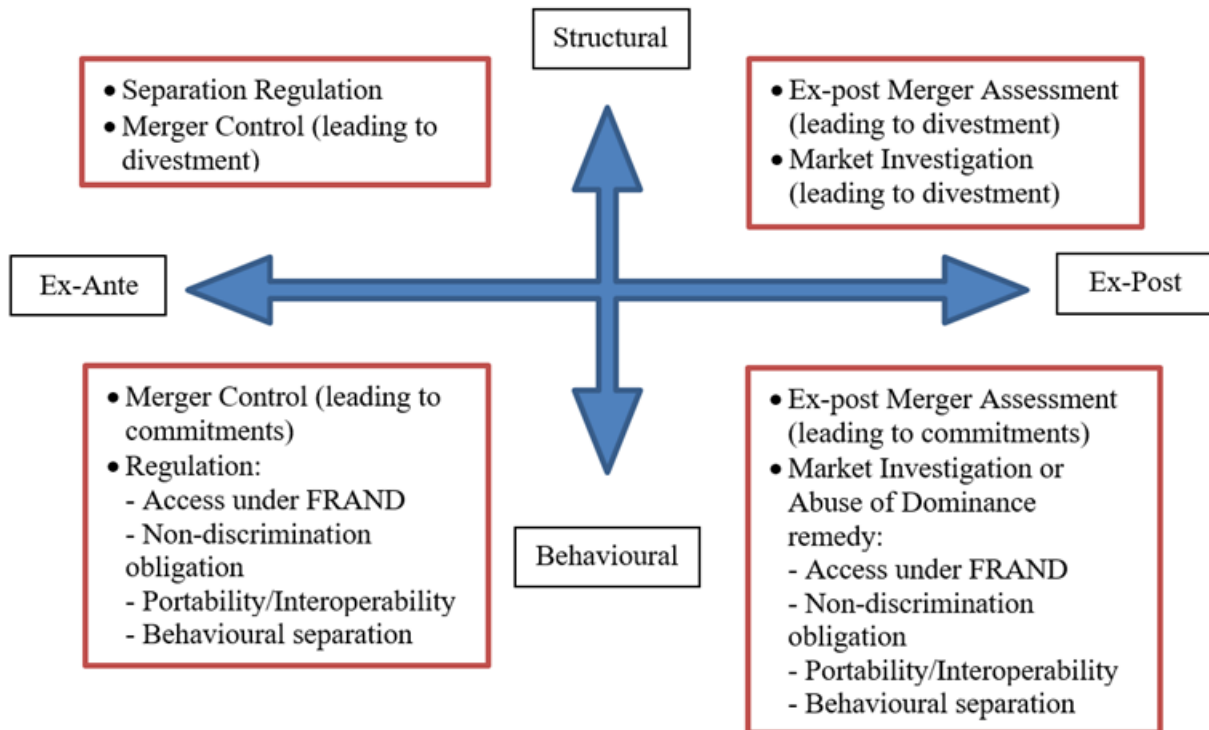
### 1.1. What are Line of Business Restrictions?

3. As noted, line of business restrictions (LOBRs) are restrictions that limit the activities that a firm can undertake. These might be imposed either by competition agencies or regulators, or in legislation. LOBRs can take a variety of forms ranging from structural to behavioural measures (see figure 1). The simplest restriction is a structural one that prohibits a firm from engaging in a particular line of business. The OECD Recommendation on Structural Separation in regulated industries (OECD, 2001) advises that adherents consider the case for such a restriction in regulated industries.

4. However, as the OECD Recommendation recognises, restrictions might not be structural, and there are also behavioural restrictions that might address the same concerns. Some behavioural restrictions involve lesser degrees of separation. For example, functional separation, accounting separation, or legal separation, which progressively restrict the firm's ability to freely organise its lines of business. Other types of behavioural restriction might; a) mandate that a firm must provide rivals with access to an important input or product; b) prohibit the firm from discriminating between those that it sells to; or c) mandate standards that the firm must apply to its products to ensure that they are interoperable with those of rivals, or that users can easily port between products.

5. LOBRs are often designed as *ex-ante* regulations; however, *ex-ante* merger control may also impose structural LOBRs, where it requires divestments or prohibits mergers, or behavioural LOBRs, where it requires commitments (see Figure 1). LOBRs can also emerge as a remedy to some form of *ex-post* enforcement action. For instance, an abuse of dominance, an *ex-post* merger review, or a market investigation that leads to divestment or commitments (no-fault monopoly).

Figure 1. Types of Line of Business Restriction



## 1.2. Why are LOBRs used?

6. Firstly, it should be said that LOBRs are rarely required. For example, they are unlikely to be necessary even if a vertically integrated firm favours or ‘self-preferences’ its own products, as when supermarkets promote or favour the sale of their own-brand products. The market power of the brands that these own-brand products compete with, combined with the lack of market power on the part of many supermarket chains, mean that these are unlikely to give rise to competition concerns.

7. Therefore, in competitive markets, there is no need for LOBRs, and furthermore even in markets where there is a degree of market power, there are potential efficiency reasons for not applying such restrictions. After all, self-preferencing is in many ways simply a softer variant of in-sourcing, and it is well-established that in-sourcing, even by government monopolists, can often be more efficient than out-sourcing when there are transaction costs.<sup>1</sup> For example, LOBRs might undermine the achieving of economies of scale, or scope, or the elimination of double marginalisation.<sup>2</sup>

8. LOBRs are, however, a set of possible solutions to a number of concerns that can arise when a firm has market power. Whether they are necessary or proportionate will depend on the case in question.

9. One exclusionary concern might be a vertical one, for example the ability and incentive of a firm operating an upstream *essential facility* to refuse to supply its rivals in downstream markets. An alternative vertical concern might be the ability and incentive of an upstream *dominant* firm to exclude in downstream markets by ‘self-preferencing’ that

raises rivals' costs and squeezes their margins, by imitating a successful product distributed on a platform and selling it at much lower prices, or by cross-subsidising its downstream price in order to predate and exclude rivals.

10. An additional exclusionary concern that may arise in the case of conglomerates is of bundling or tying (see OECD, 2020a). For example, the ability and incentive to use market power in one market to exclude rivals in the market for a complementary product by bundling or tying the products together.

11. Each of these exclusionary concerns might arise either within the context of a regulatory proposal (section 2), an alleged abuse of dominance (section 3), or a proposed merger that creates the incentive and ability to exclude in such a way (section 4). For example, in privatised electricity markets, regulations requiring structural separation of the regulated monopoly over the electricity grid and the potentially competitive retail market were introduced to pre-empt predictable competitive concerns, or to respond to them when they arose. Obviously, the same exclusionary concerns might be addressed through antitrust enforcement. Equally, a merger between firms might create or strengthen the incentive and ability of the merged entity to exclude in this way. Competition agencies may therefore require as part of a package of remedies that the merging parties to commit to a behavioural LOBR, or to adopt a structural remedy to address the concern by divesting a line of business.

12. Key policy questions for consideration then include whether LOBRs might be required for certain digital platforms (section 5), whether LOBRs should be applied through antitrust or regulatory frameworks (section 6), and more generally, how to decide which LOBRs are appropriate and proportionate to the concerns in a given case (section 7).

## 2. Regulatory LOBRs

13. LOBRs have traditionally been applied in highly regulated utility industries in which there is some natural monopoly infrastructure such as an electricity grid, water pipes or network of train lines that is considered to be an essential facility. In some circumstances, should competition be possible upstream or downstream, structural separation may be necessary to make sure that competition is not impeded. In some others behavioural remedies may be sufficient.

14. The OECD Recommendation on structural separation in regulated industries (OECD, 2001) says that countries should “carefully balance the benefits and costs of structural measures against the benefits and costs of behavioural measures.” It continues by saying that “The benefits and costs to be balanced include;

- the effects on competition,
- effects on the quality and cost of regulation,
- effects on corporate incentives to invest,
- the transition costs of structural modifications and
- the economic and public benefits of vertical integration.”

15. While this recommendation identified the need for some form of LOBR, its drafting therefore reflected the debate over the proportionality of adopting structural or behavioural measures.

16. On the one hand, full structural separation can be an effective solution in that it addresses both incentive and ability that a dominant firm or the operator of an essential facility might have to foreclose competition (Khan, 2019). However, there has always been a concern that it may do so at the expense of losing some efficiencies that can be gained from vertical integration. Slade & Lafontaine (2007) for instance set out empirical evidence suggesting the efficiencies that can generally be found in vertical mergers are significant. In addition, regulators of essential facilities may see integration as one way to preserve investment incentives for privatised monopolists (see Ofcom broadband below). However, in regulating essential facilities these efficiencies are given little weight, and much debate remains over the extent to which they should be given greater weight in cases involving firms with a significant amount of market power (see Baker, Rose, Salop & Scott Morton (2020), Kwoka & Slade (2020), and Wong-Ervin, 2019).

17. Perhaps most interesting to note here is the work of Crawford et al. (2018) which conducts simulations on 26 vertical merger transactions between regional sports networks and multichannel video programming distributors. It identifies that vertical integration (rather than blocking the transaction) is on average welfare enhancing. However, it also identifies that effective access remedies significantly increase welfare (above that which is created when vertical integration is permitted). This is largely because it prevents the foreclosure that is expected in 4 cases and the price increases of an average of 18% that are expected in the remaining 22 cases. The effectiveness of access remedies would therefore appear to be crucial, particularly in the 15% of cases where efficiencies are considered unlikely to outweigh the harmful effects of the foreclosure that is expected to occur as a result of the integration.

18. Unfortunately, the effectiveness of some behavioural LOBRs remains doubtful. It is difficult, for example, under functional and accounting separation to prevent cost shifting, either through accounting or contractual practices.

19. For instance, both accounting and then functional separation of the broadband network in the UK have each been tried. These each sought to separate the incumbent's operations, while allowing them to continue to make long term investment and strategy decisions as an integrated firm. The rationale being the regulator's concern that the incumbent would not invest in building a new network if retailers would then be able to hold-out for low prices that did not allow the recovery of the fixed cost of investing in that network. However, these were both considered inadequate, leading the regulator Ofcom to apply legal separation in 2017. Notably unlike other utilities, they have not moved towards structural separation. However, legal separation, while protecting investment incentives, does not address the underlying incentives and so may not be effective since the CEO and board of a legally separate but 100% owned subsidiary still has a duty to consider the returns to the same shareholders when it makes decisions (Biggar, 2019).<sup>3</sup>

20. In recent years, some countries have become more active in introducing some form of separation. For instance, the Japanese introduced legal separation requirements in order to ensure that generation and retail electricity operators are able to access the electricity transmission and distribution systems.

21. Meanwhile in payment systems, both separation and access under FRAND terms have been used to address concerns over self-preferencing by vertically integrated firms. For example, most payments systems are owned by consortia of large credit institutions, and so concerns arise that these will deny rivals access to this essential infrastructure and thereby exploit customers by setting excessively high multilateral interchange fees.

22. In the EU, these concerns led to a series of antitrust cases, which culminated in regulatory action.<sup>4</sup> We discuss the role of LOBRs as antitrust remedies in section 3. The regulations adopted required functional and accounting separation between payment card schemes, such as Visa and MasterCard, and providers of processing services. They also set a maximum interchange fee that could be charged by four-party payment systems for consumer debit and credit card transactions in the EU. In the UK, the Parliamentary Commission on Banking Standards also argued for banks to structurally separate from payment systems and hence to divest their ownership of payment systems services.<sup>5</sup> However, the Payment Systems Regulator instead opted to mandate access under FRAND terms.<sup>6</sup>

23. However, the debate over structural separation has in some cases been revived in light of technological change. For example, the emergence of larger more efficient batteries has led electricity network operators to take an interest in investing in developing, owning and operating batteries themselves (since they offer them value as a distribution tool). This would however breach structural separation, since battery capacity would otherwise be sold in potentially competitive flexibility markets (given their ability to both store and provide energy to the electricity grid).

24. As has been identified, by Biggar (2016), and OECD (2017), amongst others, if electricity prices were efficient (reflecting demand and supply at the time of use) there would be no need to rely on network operators to invest in batteries. However, where prices are inefficient and hence entry and investment in batteries is underprovided it may make sense to allow network operators to procure battery capacity from the market under best practice standard procurement standards (since it may be the case that no other market participant will do so otherwise).

25. In other highly regulated industries, structural separation is also used, though much of the rationale relates to the risk of contagion in a crisis, and to consumer protection from conflicts of interest.<sup>7</sup> However, even where the primary motive does not relate to competition, regulatory LOBRs can also address competitive distortions such as the importing of implicit subsidies where financial institutions operate in adjacent markets, such as retail and investment banking.<sup>8</sup>

26. For instance, those institutions with systemic importance in retail banking may expect to have access to subsidies from government in the event of a crisis, and may as a result enjoy lower costs of borrowing, in effect an implicit subsidy from government. Such advantages, if used to finance or cross-subsidise activities in other markets can create distortionary cost advantages in adjacent investment banking markets. In such circumstances, structural separation can help to remove the distortion of the level playing field, in addition to helping to prevent contagion during a systemic crisis. See for instance the structural separation imposed by the Glass-Steagall Act in the US in 1933, which were later abolished by the Gramm-Leach-Bliley Act of 1999, and the separation requirements in the Volcker rule that was introduced in 2010 and which the Federal Reserve proposed to shrink in January 2020.

27. In Europe, the UK's Independent Commission on Banking took a different view and instead recommended behavioural separation measures to ring-fence these activities.<sup>9</sup> The EU has as yet not put in place any separation requirement in banking markets, though Germany and France have each passed their own set of restrictions.<sup>10</sup>

### 3. LOBRs as an antitrust remedy

28. In unregulated markets, structural LOBRs such as those traditionally used to regulate utilities, or behavioural LOBRs might each be applied as remedies following antitrust investigations into conduct by vertically integrated firms. We first consider the concerns that arise in a margin squeeze case. We then compare the concerns in a refusal-to-deal case with those in a margin squeeze case. Finally we look at the concerns in a constrictive refusal-to-deal case, and again compare those with the concerns in a margin squeeze case. In each case we look to identify the consequences for the effective and appropriate remedy to the concern.

#### 3.1. Margin squeeze

29. LOBRs are often applied as a remedy when margin squeeze has been identified as an abuse of dominance. These cases often take place in a setting where a vertically integrated firm is dominant in an upstream market (e.g. an electricity grid) and is alleged to have used this position to reduce the competitive constraints that it faces when competing in the downstream market (retail electricity). Alternatively, the integrated firm might use downstream market power (e.g. distribution network) to reduce the competitive constraints that its products face in upstream markets (production of delivered goods). In particular, if the market power is upstream, then the concern is that the vertically integrated firm uses its upstream market power to ensure that the gap between its wholesale and retail prices is too small to allow a retail rival to compete effectively.

30. This gap can be created in two ways, and hence there are two possible theories of harm that tend to be characterised as margin squeeze.<sup>11</sup> The relevant theory and hence the potential remedy may therefore depend on how the vertically integrated firm is alleged to have leveraged its market power from one market to another.

31. For instance, the firm with upstream market power might choose not to price discriminate in its wholesale price and instead to set high wholesale prices that squeeze the margins of *both* its own downstream subsidiary and its downstream rivals. This may foreclose rivals and hence reduce competition in the downstream market. In the meantime, the firm may use the increased mark-up that it earns upstream to cross-subsidise and cover the losses that its downstream subsidiary incurs. In this case, whether or not the evidence supporting the allegation holds, the alleged margin squeeze is in essence ‘undercover predatory pricing’ by the subsidiary.<sup>12</sup>

32. Alternatively, the vertically integrated firm might leverage its upstream market power by price discriminating between its downstream subsidiary and its rivals in order to raise the rivals’ costs (‘undercover raising rivals’ costs’). This may foreclose or partially foreclose rivals and thereby reduce competition in the downstream market.

33. This discrimination can also be on non-price factors. For instance, a firm might raise its rivals’ costs, not by charging them a higher price for the input, but by providing a poorer quality service (as happened in the BT broadband example described in section 2). Alternatively, and as discussed in section 5, a dominant platform with a competing downstream retail product or service might discriminate by favouring its own products in the search results that it returns (‘self-preferencing’). In these cases, the low ranking, and consequent lack of attention, may foreclose access to consumers, increase the costs of the rival, and hence inflate its prices, thereby reducing the competitive pressure on the platform’s own product or service.

34. Bostoen (2017) suggests that Google Shopping can therefore be interpreted as a discriminatory margin squeeze case, and in that context suggests that an as-efficient-competitor test would ask whether a dominant platform could profitably offer its own product and effectively compete for end-users if it suffered the discrimination itself. He suggests that one way to think about this is to interpret the price that it charges rivals for prominence as its own wholesale price. He therefore suggests the test might ask whether a dominant platform could profitably offer its own product and effectively compete for end-users if it had to pay the price that Google Search charges to be listed at the top of the search results. This is of course the opportunity cost of awarding Google Shopping a valuable slot at no cost. Therefore, more generally the test might focus on whether the integrated firm's downstream product would be profitable if it paid the true opportunity cost of the preferential (discriminatory) treatment it received. In effect, this test explores whether the discrimination provides cover for a predatory strategy.

35. An alternative approach, based on a raising rivals' costs theory of harm, might instead look to identify the degree of consumer foreclosure against a non-discriminatory counterfactual, perhaps by auditing the algorithm. It might then quantify the additional cost to the rival of regaining this ranking, and the impact of that cost increase on the rivals' price, thereby allowing the agency to calculate the upward pricing pressure upon the products of both the rival and the dominant incumbent that stems from the discrimination. While these products might be zero-priced for consumers, they will not be for those advertisers and/or sellers on the other side of the platform that provide the monetisation route for the platform in question.

36. Discrimination, whether it be on prices, rankings, or quality, is of course not problematic in itself. In particular, a vertically integrated firm with upstream market power (e.g. a content producer) will often still have an incentive to make the input available across a wide range of downstream retail outlets in order to reach the broadest audience/customer base. This concern for the profit of the upstream platform will tend to limit the extent to which discrimination harms consumers. Equally, a vertically integrated firm with downstream market power will often have an incentive to stock a broad range of products and services on its platform in order to appeal to broad range of customers. In each case, these incentives reduce the risk that discrimination will result in reduced output. However, there are also circumstances in which the incentive is to instead use the market power to exclude. For example, one important factor is the degree of overlap between the subsidiary of the vertically integrated firm and rivals in the market that it hopes to monopolise. The greater this overlap, the less incentive there is for the vertically integrated firm to licence content broadly, if it were a television content provider (or to stock a broad range of products if it were a digital retailer).

37. In cases where margin squeeze relies on dominance rather than an essential facility, agencies have often avoided mandating access in their remedies. Instead, they have tended to accept lighter touch remedies. For example, in the EU's case against Slovak Telekom the firm was required to cease and desist its margin squeeze, but no duty-to-deal was imposed.<sup>13</sup> Similarly, in Google Shopping, the remedy was, as is often the case to order the firm to cease and desist the action, and then left to the firm to propose.<sup>14</sup> The result has been a system by which access to a choice box is auctioned amongst rivals (see Box 4). This therefore appears, in effect, to be a type of non-discrimination obligation in which the price of access for rivals is left to the auction to determine. It therefore does not go as far as requiring that rivals be given access to prominent search result positions on FRAND terms. For example, by auditing algorithms to ensure that they provide a level playing field.

### Box 1. Single Monopoly Profit theory

In the past, the single monopoly profit theory argued that enforcers should not worry about margin squeeze, since any monopoly position (here in the upstream market) is only able to extract its monopoly profit once. Hence, a firm with upstream market power would already be perfectly capable of extracting the monopoly profit by charging a monopoly price in the upstream market. Under this theory, whether the downstream market is competitive or monopolised is of no consequence to consumers or the firm. However, as is now well known, this theory relies on a number of extreme assumptions that often do not hold in practice, as discussed below (Salop, 2018, Baker, 2014, Kaplow, 1985).

For example, the theory requires that downstream foreclosure does not help protect the firm's upstream monopoly by making entry more difficult (e.g. by a downstream rival that vertically integrates). It also requires that foreclosing downstream competitors does not improve the firm's ability to price discriminate and thereby better exploit its market power (downstream price discrimination is of course not possible without downstream market power). A third assumption is that foreclosure would not protect the firm from non-price competition in the downstream market. A fourth is that the downstream rival does not have some, albeit limited, input substitution possibilities and hence that by discriminating the dominant firm could not increase its downstream profit by more than simply raising the wholesale price would. Fifth, it requires that the firm's upstream price is not capped, which would limit its ability to extract rent through its wholesale price. Sixth, it also requires that the production technology uses all inputs in fixed proportions. The reason being that when only the upstream (input) market is monopolised, downstream firms can react by altering their input mix so as to minimise the amount of the monopolised good that they use in production.<sup>15</sup>

Therefore, since this describes many if not most unregulated markets, the potential incentive to foreclose rivals through margin squeeze is likely to exist across a broad range of markets. However, whether that incentive actually arises in a given case will of course depend on the specifics of each case.

## 3.2. Refusal-to-deal and margin squeeze

38. Refusal-to-deal also takes place in a vertical setting in which a firm produces upstream and downstream products and is dominant in one of the two. By denying rivals in the more competitive market the access they need to an essential input or distribution service, the integrated firm may hope to leverage its strength from one market into another.

39. This method of leveraging market power therefore can and should be distinguished from distinct theories of harm such as margin squeeze, whether in its predatory or raising rivals' costs guise. In order to be harmful, both the predation and raising rival's costs theories of harm require (amongst other things) that an incumbent hold a dominant position; but they do not require that the incumbent operate an *essential* facility.

40. In contrast, to be confident that a refusal-to-deal is designed to actually *deny access* to an input, and hence to be confident that forcing the firm to deal with that rival is necessary, it must be expected that such a refusal would succeed in denying access. If instead, there is a way around the refusal, for example via an alternative input, or by paying a higher price that then squeezes rival's margins, then the theory of harm cannot be expected to hold (though others such as margin squeeze still might).

41. This distinction has important consequences because the LOBR remedy that typically follows from explicitly refusing-to-deal on an essential facility is to apply a duty-to-deal, to mandate access and force the firm to deal with its rivals. See for example *Aspen Skiing*,<sup>16</sup> *Magill*,<sup>17</sup> and *Commercial Solvents*.<sup>18</sup> In contrast, absent an essential facility, the proportionate remedy is likely to be aimed, not at forcing a deal (since dealing is already occurring), but instead at making it easier for existing rivals to compete on the merits. For example, this might happen through mandating non-discrimination (without requiring access), or by setting mandatory standards for portability and interoperability.

#### Box 2. Aspen<sup>19</sup>

In *Aspen Skiing Co. v. Aspen Highlands Skiing Corporation*, the Supreme Court was asked to determine the conditions under which a dominant firm must continue a joint marketing arrangement with a rival. The defendant (—Ski Co.) owned three of the four ski sites in the relevant market. The plaintiff (—Highlands) owned the only other site. For years, the two firms had cooperated in offering a joint ticket that permitted skiers to use the ski lifts at all four of their locations. The firms shared the revenue from the joint ticket sales on the basis of usage at each location. Eventually, Ski Co. demanded that Highlands accept a fixed percentage of the revenue that was well below Highlands' historical average based on usage. The firms could not agree on how to allocate the revenue between them, and Ski Co. eventually terminated the arrangement. Highlands attempted various workarounds, including offering vouchers for lift passes at the three Ski Co. mountains. The vouchers would have reimbursed Ski Co. at the full retail value of the passes, but Ski Co. refused to accept them.

The Supreme Court acknowledged that “even a firm with monopoly power has no duty to engage in joint marketing with a competitor.” Nevertheless, it found that Ski Co. did have such a duty, rephrasing it as a less-than-absolute right to refuse to deal: “The high value that we have placed on the right to refuse to deal with other firms does not mean that the right is unqualified.” The original district court applied an injunction requiring the defendant to participate with the plaintiff in offering a joint four-area six-day ski-lift ticket for a period not exceeding three years. This was not raised before the Supreme Court and so continued to apply when the district court was upheld.

42. This reflects the fact that applying a duty-to-deal is an extremely intrusive step. There are numerous legitimate pro-competitive reasons why a firm, even a dominant, vertically integrated, firm, might not want to deal with another firm. For example, a seller may lack capacity to meet the requirements of the purchaser, alternatively the purchaser may have failed to pay promptly for products in the past, or the purchaser may present a risk to the reputation of the seller (though limits have been placed on such an argument at least in European case-law).<sup>20</sup>

43. For these reasons, case-law in most countries only identifies explicit refusal-to-deal as an abuse under strict conditions, most notably that the refusal relates to a product or service that is objectively necessary in that it is essential or indispensable input for a rival to be able to compete effectively on a downstream market.<sup>21</sup> Moreover, it is notable that structural separation is rarely if ever used to address refusal-to-deal abuses. Rather it is a remedy that appears to be reserved for ex-ante interventions such as regulation or merger control.

### 3.3. Constructive refusal-to-deal and margin squeeze

44. Against this background, it is possible that an incumbent that operates an essential facility might seek to evade enforcement action by deciding not to refuse-to-deal (for fear of liability), but instead to *constructively* refuse-to-deal by setting a price so high that in effect the offer to sell is not in fact an offer, but rather a refusal.<sup>22</sup> Given this risk, there has been concern to ensure that such behaviour does not successfully remove the incumbent's liability for what might in essence be the same practice (see [EU Prioritisation guidance, 2009](#)).

45. However, where a refusal-to-deal is not explicit, and the effort to foreclose is instead a price-based (or terms and conditions) abuse, a range of other theories of harm may also then emerge, and different remedies that fall short of mandating access (whether through structural separation or behavioural commitment) might then be effective and proportionate for addressing those theories.<sup>23</sup> These include margin squeeze, either of the predatory or the raising rivals' costs variety, as well as other similar conduct (which again should not be confused with constructive refusal-to-deal). Indeed, given the variety of such theories of harm, it would perhaps be more helpful to refer explicitly to the underlying mechanism for leveraging market power as being one of "raising rivals' costs" (or in other cases of "predation"), rather than to margin squeeze and constructive refusal to deal.

46. Clearly, where margin squeeze constitutes alleged 'undercover predation', the theory of harm is very different from that which an agency might have in mind in an alleged constructive refusal-to-deal theory of harm. Most notably, the price at which the product is offered to the rival will, in the margin squeeze case, *not* be excessive; rather it will be the same as the price that the vertically integrated firm charges to its own subsidiary and others.

47. Similarly, where margin squeeze is thought to operate through an undercover raising rival's costs strategy, the theory of harm will again differ from a constructive refusal-to-deal. In particular, constructively refusing-to-deal would not raise rival's costs, since the high price would have to be designed to ensure that the rival does not purchase *at all*, hence its costs would not be higher. Instead, it would be unable to produce a product that includes the input supplied by the essential facility. Indeed if the rival did purchase an alternative, perhaps from a less efficient upstream rival, and their costs did increase, then the presence of such an upstream rival from whom they purchased would demonstrate that the facility was in fact not essential (rather, there was a rival facility). Meanwhile if the rival purchased from the firm despite the high price, then that price could not amount to a constructive refusal-to-deal (since evidently it did lead to a deal being struck).

48. Instead, a margin squeeze that raises rivals' costs, would give the dominant firm *both* the increased margin that it makes on upstream sales still made to the downstream rival, and the reduction in pricing pressure upon its downstream products (allowing it to increase downstream prices and margins). These benefits would mean that the incentive compatibility constraint required for a margin squeeze strategy to be profitable is therefore potentially much looser than that which is required to make it profitable to run a refusal-to-deal strategy. For example, refusing-to-deal involves giving up entirely on what would be profitable upstream sales to the downstream rival in order to force exit, and the uncertain prospect of recouping through higher downstream profits in future.

49. Notably, [Colomo, \(2019\)](#) suggests that the European courts set different standards for margin squeeze and refusal-to-deal cases on the basis of the different intrusiveness of the LOBR that is expected to follow from the two types of cases. While this may in practice be true, we argue here that the theory of harm is different and that it is this that drives both the difference in standards set by the courts *and* the different remedies that tend to be

applied. That is to say that the correlation that is identified between remedies and standards is co-determined by a third factor, the theory of harm.

50. As a practical matter, when there is not an *explicit* refusal-to-deal, but suspicion of a constructive refusal-to-deal, agencies may examine *both* whether the firm is denying rivals access to inputs required to compete, and, separately, whether it is attempting to raise rivals costs. As noted above, it should be clear in such cases that the firm is not engaging in predatory margin squeeze, and so that possibility should be possible to discard entirely. Then depending on the theory of harm that is relevant in the context of the case in question, different necessary conditions will then apply. Most notably, dominance might be required, or the identification of an essential facility might be required. In the case of a raising rivals costs theory, other relevant conditions would then include the basis upon which the single monopoly profit theory is considered not to apply (see Box 1).

51. Notably in the EU, post-*TeliaSonera*, the requirements for identifying an anticompetitive margin squeeze, and hence potentially requiring some form of non-discrimination obligation or mandatory standards on portability and/or interoperability include; dominance; a broad spread between wholesale and retail prices; the risk of elimination of effective competition on the downstream market; and the likelihood of consumer harm. It does not require that an input be essential or indispensable, though where this is the case anticompetitive effects are considered probable (where it is not they must be demonstrated), and is not restricted to cases where there is a duty to deal (Veljanovski, 2012).

52. This is emphasised by Cremer et al. (2018) report on Competition Policy in the Digital Era; “self-preferencing is not abusive per se, but subject to an effects test. However, we believe that self-preferencing by a vertically integrated dominant digital platform can be abusive not only under the preconditions set out by the “essential facility” doctrine, but also wherever it is likely to result in a leveraging of market power and is not justified by a pro-competitive rationale.” We will return to the question of digital markets in section 5.

53. A final point of note is that while margin squeeze does not require an input that is essential or indispensable, it may nevertheless feature such an input. In such cases the vertically integrated firm might have the option of restricting competition through margin squeeze or through refusing-to-deal. In remedying such a case an agency would do well to anticipate that remedying the margin squeeze, for instance through a non-discrimination LOBR may simply drive the firm to instead adopt a refusal-to-deal strategy as a way to comply with the LOBR while still restricting competition. This would suggest that assessment of the indispensability of an input would be helpful even in a margin squeeze case (despite not being a necessary condition), since it may help select an effective and proportionate remedy.

#### 4. LOBRs as a remedy for vertical mergers

54. Vertical mergers, while rarely challenged, can create the same concern over foreclosure that arises when looking at exclusionary practices such as margin squeeze or refusal-to-deal, and indeed the same concerns that ex-ante regulation often seeks to anticipate. In the same way that those cases are not common, but remain well-grounded in economic theory, action against vertical mergers is also rare (though it may become less rare as economic thinking is reflected in updated guidance on such cases).<sup>24</sup>

55. Nevertheless, in those cases where agencies do successfully challenge vertical mergers, a likely remedy is some form of LOBR. This might be the structural solution of prohibition, which the US DOJ sought on the AT&T/Time Warner merger. Alternatively, it might be a behavioural alternative, as applied in Comcast/NBCU (see Box 3), and indeed as sometimes offered by merging parties in order to anticipate such concerns (see the binding arbitration offer by AT&T which sought to remedy the concerns over foreclosure that the merger with Time Warner created).<sup>25</sup>

56. In effect, the concern in vertical merger cases is usually that the merger will facilitate margin squeeze and hence foreclosure. Therefore, the necessary conditions are broadly similar, though inevitably forward looking (without the benefit of hindsight that agencies might enjoy in an abuse case). For instance, the upstream input need not be an essential facility, instead market power and the importance that goes with that would be sufficient. See for instance the status attributed to Turner content in the AT&T-Time Warner merger.<sup>26</sup>

57. This is not to say that a vertical merger that was expected to result in a refusal to deal would not also be challenged and remedied. However, that would require evidence both to identify that an essential facility exists, and that it would also be profitable for the integrated firm to refuse to deal with rivals after the merger. Moreover, this would need to be a refusal, not simply a bargaining threat.

58. As noted, the findings of Crawford et al. (2018) warn that blocking vertical mergers may be harmful, but do suggest that the scope for behavioural remedies to improve consumer welfare in vertical mergers involving dominant firms may be wider than appreciated. For example, competition agencies focus in their merger control and enforcement interventions on protecting against *reductions* in competition, and typically do not consider it within their enforcement remit to actively *increase* competition by adding pro-competitive remedies to mergers that are not anti-competitive (this is reserved for actions within their advocacy remit). However, Crawford et al's findings remind us that protecting and preserving pre-merger levels of competition need not mean blocking the merger, or divesting lines of business, and losing the efficiencies it may bring. Instead, behavioural remedies may allow pre-merger levels of competition to be preserved, while facilitating the realisation of merger efficiencies, thereby increasing welfare (but importantly not increasing competition, since as noted this may be difficult to justify as a remedy to a merger or enforcement action).

59. It will therefore be interesting to see whether the possibility of welfare enhancing remedies increases the tendency for dominant firms engaged in vertical acquisitions to offer, and for agencies to accept, behavioural commitments in relations to vertical mergers.

### Box 3. Comcast/NBCU

On 3 December 2009, Comcast and NBC Universal (NBCU) announced that Comcast would purchase a controlling stake in NBCU. Comcast owns the largest cable distribution network in the US and NBCU was a significant player in the market for video content. Their main relationship was that NBCU provided video content to Comcast which then was distributed to consumers through Comcast's cable network. Both the Antitrust Division of the Department of Justice (DOJ) and the telecommunications regulator, the Federal Communications Commission (FCC), reviewed the transaction.

The agencies were concerned that Comcast/NBCU would withhold or raise the prices of NBCU video content, which was necessary to compete effectively against Comcast, to rival content distributors, and treat non-Comcast/NBCU content less favourably on Comcast's cable network.

The agencies therefore imposed a number of behavioural remedies on the merger. They included a requirement that Comcast/NBCU licenses its content to online video distributors on terms comparable to those in similar licensing arrangements with other video distributors. In addition, Comcast/NBCU had to treat all internet traffic the same and, in particular, to ensure that online video distributors' traffic is treated no worse than any other traffic on Comcast's cable network, including traffic from Comcast/NBCU sites. In relation to access for rivals to content, the same type of 'binding arbitration' mechanism used in AT&T-Time Warner was required by the DoJ and the FCC.

*Source:* United States et al. v. Comcast Corp. et al., 808 F. Supp. 2d 145 (D.D.C. 2011); the court filings are all available at <http://www.justice.gov/atr/cases/comcast.html>.

## 5. Are LOBRs required in digital markets?

60. We first briefly consider the case for LOBRs to create, protect or facilitate competition in the digital platforms 'core' upstream markets. Measures to strengthen competition here might, as in telecom markets, undermine the risk of market power being leveraged into downstream (or upstream) markets, and therefore address the concern without the need for structural LOBRs. We then briefly consider the case for LOBRs to protect competition in downstream markets.

### 5.1. Does the nature of the data held by digital platforms necessitate an LOBR?

61. Many of the assets that have been defined as essential facilities in the past have been 'natural' monopolies (e.g. gas, electricity, water, railways and telecommunications grids). These are considered 'natural' because they arise out of the properties of the productive technology, and not from government or firm behaviour. They are characterised by steeply declining long-run average and marginal-cost curves, which mean that there is room for only one firm to fully exploit available economies of scale and supply the market. In essence, natural monopolies exist because of economies of scale and economies of scope that are large relative to market demand. They rule out the possibility of efficient competition in a market for the provision of those facilities (e.g. the electricity grid), and also risk removing the possibility of competition in downstream and upstream markets (e.g. retail or generation of electricity).

62. However, the case has also been made that natural monopolies are not limited to those where the nature of the productive technology means there is room for only one firm. Instead, there can also be monopolies where the nature of *demand* means there is room for only one firm (see OECD, 2019). These might be labelled as 'natural' (demand-side) monopolies in the sense that they derive from exogenous market conditions and not from government or firm behaviour.

63. Examples of 'natural' (demand-side) monopolies might potentially include digital platforms that have sufficiently powerful direct or cross-platform network effects. These effects and the data they produce generate increasing value and hence returns from scale.

By which we mean that the value, or willingness to pay for the product grows, sometimes exponentially, as its scale increases (rather than its cost falling). Therefore in some cases these effects might be sufficiently strong as to drive competition for-the-market, rather than competition in-the-market (the so-called “winner-takes-all or most” dynamic).

64. What LOBRs might be considered in order to protect competition (but not competitors) in those markets in which digital platforms collect the data that is thought to be essential, and which would be proportionate? For example, are there behavioural LOBRs that could facilitate competition within these markets that some argue are natural monopolies (and thereby resolve the foreclosure risk in downstream markets)? In this section, we briefly consider three of the large digital platforms ‘core’ markets. In section 5.2, we then consider the structural or behavioural LOBRs that might be required in downstream markets if effective competition within these ‘core’ markets is not possible.

### 5.1.1. General search

65. In contrast to social networks and digital retail platforms, if general internet search (including voice search) were a natural monopoly (which may or may not be the case), it appears to be better described as a natural (supply-side) monopoly that is based on economies of scale, rather than a natural demand-side monopoly based on network effects.

66. This is because general search engines do not need to ‘add’ additional websites on the other side of their platform in order to create cross-platform network effects that attract users (as is the case in social networks, digital retail marketplaces, hotel booking, app stores, operating systems etc.). Every website they might link to is already openly available to all.

67. Instead, in general search there is a feature of the supply-side technology (the algorithm) that means the quality of the technology improves, and hence the match that the platform can make improves, when larger numbers of users use the product. This is because users generate more data and a long tail of search terms that allow the algorithm to be trained, or to ‘learn-by-doing’, and this improves the quality of match between search inquiries and answers. This means that, all else being equal, a search engine with many users, and hence more data to analyse, can make a higher quality search inquiry match than a platform with few users and little data to work from. These are therefore supply-side *learning-by-doing effects*, but, just like network effects they are powered by greater demand.

68. Data held by general search engines therefore appear analogous to supermarket or department store loyalty card data, which allows popular and successful firms to learn more about the customers that they attract and to improve the quality of the product-matching service they provide.<sup>27</sup> The market power provided by such data could certainly be substantial. However, it would appear that this market power is based not on network effects but on the current supply-side technology. The basic framework (the directory) which that technology operates upon could be (and indeed has been) built by other firms that invested in creating it. However, what is also required is investment in training algorithms to search that directory using data from users (which does not appear to have happened to the same extent).

69. User acquisition for new search engines is certainly more expensive now than it was at the beginning of the internet era, and so the cost of duplicating such a large quantity of search terms is much higher than that which the present incumbent incurred. However, despite this first mover advantage, we might ordinarily expect that rivals would emerge who would offer to pay users to search using their service (either in kind, or in cash), and

where possible, to port across their past searches (in the same way that rivals do emerge and invest heavily in advertising and low prices to build mass in other markets).

70. Therefore, in order to conclude that a search engine's data was a non-duplicable essential facility, we would need to believe that entrants could not pay users to switch and that there were a hard zero-price floor that prevents rivals from investing in building their own user base. Moreover, if, as we might suspect, there is in practice a zero-price floor, we might nevertheless consider it more proportionate to focus remedies on removing that floor, rather than mandating access to the search data.

71. For instance, a zero-price floor might suggest that there are public good aspects to the infrastructure that is required to make micropayments, or to allow consumers to commit to use a rival search engine. If so, then measures to sponsor their development might be taken in the same way that open API standards have been developed as a result of market studies by competition agencies (see Open Banking as discussed in OECD, 2018 and section 7.4 below).<sup>28</sup>

72. In addition, to allow competition for a users' past search data it might also be necessary to allow rival search engines that persuade users to port their historic data to do so (e.g. from a given IP address). Therefore, mandatory standards for business-to-business transfer might be established to enable this to happen without burdening the user with the cost of doing so.

### 5.1.2. Social Networks

73. For social networks, the network effect is *directly* driven by demand (rather than through learning-by-doing). Therefore, again entry should technically be feasible, though expensive, if entrants were to pay users to adopt (thereby stealing rivals' business).<sup>29</sup>

74. Note that entry through customer acquisition would not be practical in a natural supply-side infrastructure monopoly since a rival water, rail, or electricity grid operator would need to sink costs into tangible supply infrastructure without having any demand to rely on (making it a high risk endeavour). Moreover, it would need to do so without the prospect of the market tipping towards it if it could reach critical mass (since business stealing would not undermine the incumbent's physical infrastructure in the same way that it would a platform's network effects).<sup>30</sup> For example, following entry two nationwide electricity grid's would then remain and would limit the entrant to earning a duopoly profit, while in contrast, the value in an intangible social network would begin to evaporate if users were to migrate to a different network. This would offer the entrant the distant prospect of a monopoly profit.

75. In the case of social networks another option is, rather than mandating access to the grid, the pipes, or in this case the data (for instance the social graph), regulators might instead mandate interoperability standards. This is a useful option since, unlike in the case of Open Banking (see section 7.4) where sharing data on past use allows third parties to offer more personalised products, it is not clear what users of social networks would gain from sharing data, for example on their social graph, with new entrants. Interoperability standards would also go beyond the impact that portability might have in increasing the intensity of competition for-the-market, and instead enable a shift towards competition in-the-market. For example, it would allow entrants to offer the ability to contact and interact (interoperate) with those that use the incumbent's platform, but without forcing the incumbent to provide access to large datasets.

76. See for instance Figure 2 below which sets out the CMA's illustration of the type of product enabled by content interoperability between social networks. The network

effects would then be available to users of multiple rivals in parallel, without diminishing the network effect available to their own users.

Figure 2. CMA illustration of hypothetical content interoperability



Source: CMA, Interim report on digital advertising market, 2019. Figure 6.1. Content Interoperability.

### 5.1.3. Retail Networks

77. In the case of digital retail networks, the services are not provided at zero cost and so there is evidently not a zero-price floor. There would therefore appear little to stop entrants wishing to gain the same data from following the same strategy and investing in offering lower prices to users and lower commissions to retailers to get each side on-board and thereby obtain the same type of data. These are again comparable to the successful supermarkets and department stores that obtain data that allows them to know their consumers better and hence to improve their offer to them.

78. In retail platforms, the concern is therefore not *the data* of the retail platform, but the impact of the platform on downstream markets. Hence, the question would not be whether access to the platform's data is mandated, or structurally separated, in order to facilitate upstream competition, but rather whether downstream sellers' access to *list on the platform* should be mandated, or whether the platform's marketplace should be structurally separated from its own retailing operation. We consider these issues below.

## 5.2. Does the nature of digital platforms necessitate an LOBR to protect competition in other markets?

79. We next consider whether the platforms themselves (rather than their data) might be essential facilities, or hold market power that might necessitate an LOBR to protect

rivals in downstream markets? In particular, as is common in other regulated sectors discussed in section 2, regulatory or remedial restrictions can be necessary where these downstream markets are potentially competitive, whether or not they currently are.<sup>31</sup> For instance, ex-ante regulation of natural monopoly infrastructure is not removed when or if the downstream retail market becomes competitive; it is instead a necessary condition for that downstream market to remain competitive.

80. In respect to the essential or dominant nature of the platforms, it is notable that recent investigations by both the CMA and the ACCC have suggested that prominent digital platforms enjoy market power that stems from network effects, and have suggested that LOBRs might be required to address this power.<sup>32</sup>

81. Similarly, in Germany, dominance was established by the Bundeskartellamt in the Facebook case,<sup>33</sup> even if the exploitative abuse of that dominance was rejected by the initial appeal court (it remains under appeal at the higher court).<sup>34</sup> Meanwhile in the EU, Google was found dominant in search in Google Shopping (see Box 4 below), and the Commission is currently investigating whether Amazon abused its dominance in relation to its treatment of its suppliers, therefore the Commission's view of whether Amazon is dominant will become clear. In each case, the concern might be characterised as a variation of margin squeeze given the vertical foreclosure theory of harm appears to rely on raising rival's costs (or perhaps even predation as Boesten, 2017 suggests), but certainly not refusal-to-deal.

#### Box 4. Google Search (Shopping) case

On 27 June 2017, the European Commission adopted a decision fining Google €2.42 billion for having abused its market dominance as a general search engine by giving an illegal advantage to another line of business, its comparison shopping service (Google Shopping). The abuse consisted of positioning and displaying Google Shopping more favourably in its general search results pages compared to rival comparison shopping services.

In addition to the fine, the decision also ordered Google to comply with the principle of giving equal treatment to rival comparison shopping services and its own service, leaving it up to Google to craft precise remedies to ensure compliance. The solution adopted by Google, involves auctioning the shopping box that appears on top of the page of search results with no slots reserved for Google Shopping. However, this has been criticised for not being sufficient to comply with the principle of equal treatment<sup>1</sup>.

The US FTC investigated a similar conduct but closed the investigation in 2013, concluding that “Google’s display of its own content could plausibly be viewed as an improvement in the overall quality of Google’s search products” and that “any negative impact on actual or potential competitors was incidental to that purpose”<sup>2</sup>.

Note 1: Open letter to Commissioner Vestager from 14 European Comparison shopping services [http://www.foundem.co.uk/Comparison\\_Shopping\\_Open\\_Letter\\_Commissioner\\_Vestager\\_Nov\\_2018.pdf](http://www.foundem.co.uk/Comparison_Shopping_Open_Letter_Commissioner_Vestager_Nov_2018.pdf); BEUC, “Consumer concerns with Google’s non-compliant remedy in Antitrust Shopping case”, [https://www.beuc.eu/publications/beuc-x-2019-020\\_google\\_non-compliant\\_remedy\\_in\\_antitrust\\_shopping\\_case.pdf](https://www.beuc.eu/publications/beuc-x-2019-020_google_non-compliant_remedy_in_antitrust_shopping_case.pdf)

Note 2: Statement of the FTC Regarding Google’s Search Practices, In the Matter of Google Inc., FTC File Number 111-0163 (Jan. 3, 2013), available at [https://www.ftc.gov/sites/default/files/documents/public\\_statements/statement-commission-regarding-googles-search-practices/130103brillgooglesearchstmt.pdf](https://www.ftc.gov/sites/default/files/documents/public_statements/statement-commission-regarding-googles-search-practices/130103brillgooglesearchstmt.pdf).

82. However, if some digital platforms are indeed dominant, and have the ability to exclude rivals in downstream markets, would they have an incentive to do so? ICLE (2019) recite single monopoly profit theory to suggest not. They take the example of Amazon and ask why it would move into competition with more efficient retailers on its platform when it could simply increase its fee? They also note that doing so would discourage suppliers from using Amazon's platform (and hence damage its ecosystem).

83. On the one hand, it does seem unlikely that Amazon is protecting itself against its suppliers entering into its space as a general internet retailer. However, on the other hand, it is perfectly conceivable that Amazon is not yet a monopolist (indeed many would argue this is clear). This means there is ample additional profit that it would presumably like to extract. In such circumstances, a retailer might consider that the best way to do so is by expanding its market share of sales rather than simply increasing its share of the margin on retailed goods (which would raise prices and reduce the uptake/penetration of internet retail services). Similarly, it seems at least conceivable that leveraging market power into services sold on a retail platform would increase its ability to price discriminate using the data acquired (or to help to target adverts and hence increase advertising profit).

84. More important is the question of whether, a dominant digital retailer would have an incentive in discouraging sellers from listing on its platform by undercutting them and then guiding consumers towards its own low-cost alternatives ('self-preferencing'). Zhu & Liu (2018) note that Amazon's downstream entry risks reducing the availability of innovative products on the platform. For example, Wen and Zhu (2019) find that the mere threat of entry by a dominant platform owner into an application market is sufficient to cause the incumbent application providers to reduce innovation efforts and price competition – specifically by raising prices.<sup>35</sup> Downstream entry by the platform might therefore threaten to make the platform's eco-system less attractive, however if a platform were considered to have a dominant position this might be one of the luxuries that it is afforded by the weakness of the competitive constraints that it faces. Moreover, while there are likely benefits from a platform offering an own-brand product downstream, it is less clear what the benefit to consumers is from self-preferencing that guides them towards the platform's downstream offer and away from rival products.

85. For example, Zhu & Liu (2018) argue that consumers benefit from Amazon's distribution system, and that this would outweigh the loss of innovative products on the platform. However, while this may be true, the weighing of that benefit against the loss of innovation pre-supposes that Amazon's distribution system depends upon its ability to self-preference. It seems, on the face of it, unlikely that Amazon is cross-subsidising its distribution system through the profit margin made on its own low-cost alternatives to innovative products. The specificity of any benefit to the conduct in question will of course depend on the details of the case. For instance, the Italian Competition Authority is currently investigating not self-preferencing, but whether Amazon is discriminating against some third party sellers, and in favour of other third party sellers that purchase Amazon's delivery services, and thereby restricting competition.<sup>36</sup> In contrast, the EU (and the Antitrust sub-committee of the US House of Representatives) is examining whether Amazon's ability to collect data through its Marketplace platform gives the company an anticompetitive advantage when selling its own-label products on the platform.<sup>37</sup>

86. In such cases, it is possible that even if Amazon were more efficient, and not interested in squeezing its downstream rivals' margins it might nevertheless create competitive distortions that hold-up investment by suppliers (see OECD, 2016b). While these concerns might not support an exclusionary abuse case, or a structural separation, it

might nevertheless suggest that non-discrimination LOBRs, such as the codes of practice applied to dominant supermarkets, could have pro-competitive effects (see Box 5). Indeed such a code of conduct features amongst the recommendations of the Furman review (Furman et al., 2019) and the German Competition 4.0 report (BMWi, 2019). A similar proposal is advanced by Singer (2017) who calls for a non-discrimination standard with disputes adjudicated by an administrative law judge or “Net Tribunal”.<sup>38</sup>

#### **Box 5. Groceries Supplies Code of Practice (GSCOP)<sup>39</sup>**

Following a market investigation the CMA’s predecessor, the Competition Commission, found that supermarkets with market power had exploited suppliers by engaging in conduct which damaged their investment incentives. For example, demanding retrospective rebates, delaying payment, and applying uncontracted deductions. In effect, these were examples of ‘hold-up’ problems that smaller suppliers were unable to resolve themselves due to the oligopsonistic market power of the supermarkets.

This led the Competition Commission to recommend that government create a Groceries Supply Code of Practice, which would restrict the ability of supermarkets to exploit suppliers. The code of practice was to be enforced by an independent adjudicator who could receive anonymised evidence (due to fear of reprisals by dominant supermarkets). The proposal was accepted by the government and the adjudicator was appointed in 2013. Actions have included investigations against Tesco for delayed payments, and limits on the use of forensic auditing. The adjudicator reports that the proportion of suppliers experiencing code-related issues has decreased from 79% in 2014 to 41% in 2019.

87. The discussion over a digital platform’s incentives and its treatment of suppliers, will of course not only apply to retail platforms, but also to cloud services, where there may be similar risks (see Bostoen, 2017).<sup>40</sup> Moreover, they also apply to the incentives of app stores (for example as is presently being tested by Spotify), to search, and potentially to cryptocurrencies such as Libra.

88. In this context, it is not surprising that Cremer et al. (2018) take the view that “dominant platforms have a responsibility to ensure that their rules do not impede free, undistorted, and vigorous competition without objective justification. A dominant platform that sets up a marketplace must ensure a level playing field on this marketplace and must not use its rule-setting power to determine the outcome of the competition.” The report goes on to recommend that under certain conditions, platforms should “bear the burden of proving that self-preferencing has no long-run exclusionary effects on product markets.”

89. Similar proposals for a level-playing field are made in the German Competition Law 4.0 report (BMWi, 2019), the BRICS report on digital competition (BRICS, 2019), and are supported by the Dutch Competition Authority (ACM).<sup>41</sup> Meanwhile the CMA has broached the possible need for structural separation of the advertising services provided by Google, though in relation to Facebook’s social network and Google’s search products the LOBRs that it is considering as possible interventions for a new ex-ante regulator are focused instead upon mandating portability and/or interoperability, a code of conduct, and access to data for rivals (see Box 6).

### Box 6. CMA interim report on the digital advertising market<sup>42</sup>

The CMA launched a market study on digital advertising in July 2019. In its interim report, it explained that its work had strengthened its view that there is a strong argument for the development of a pro-competitive regulatory regime to regulate the activities of online platforms funded by digital advertising. It therefore began to consult on three broad categories of intervention that it has considered that a regulator might make (see in particular annexes I, J, K, L and M for details on how each of these might work):

1. Rules to govern the behaviour of platforms with market power, including an enforceable code of conduct, the key provisions of which would capture three overarching principles:

- *'fair trading'* to require the SMS platform to trade on fair and reasonable terms for services where they are an unavoidable trading partner as a result of their market position.
- *'open choices'* – including for example, rules to ensure that search and ranking algorithms do not preference the platform's own services above those of competitors; and/or a requirement to design core services to be interoperable, eg through APIs, at a cost-based price which is objectively justifiable, with reasonable endeavours to manage privacy or technical concerns.
- *'trust and transparency'* – including for example, a requirement to explain the operation of search and ranking algorithms and advertising auctions and to allow audit and scrutiny of their operation by the regulator; and/or a requirement for large firms to agree to reasonable requests to access certain data on a fair, reasonable and non-discriminatory basis, subject to GDPR and IP rights, where that data is unmatchable as a result of their market power.

2. Rules to give consumers greater control over data and to improve transparency. These might include (amongst others):

- A rule that all platforms should be required to give consumers an option to use their services without requiring in return the use of consumers' data for personalised advertising.
- Changes to default settings to require a default 'opt-in' to personalised advertising rather than the current default opt-out.
- A principle of 'fairness by design' placing an ex ante obligation on platforms to design consent and privacy policies in a way that facilitates informed consumer choice, with additional obligations to trial and test choice architecture.

3. Interventions to address specific sources of market power and to promote competition:

- A requirement that Google provide click-and-query data to rival search engines.
- A restriction on the ability of Google to enter into arrangements to be the default search engine on devices and browsers.
- A requirement to offer choice screens to consumers on devices and browsers allowing consumers to choose their default search engine, building on Google's recent introduction of choice screens on all Android devices.

- A requirement on Facebook to interoperate specific features of its current network with existing competitors.
- A range of separation remedies to address concerns relating to Google's conflicts of interest in the open display market. These could include, for example, the separation of the ad server (which plays a key role in the selection and pricing of adverts and in which Google has a very high market share) from the rest of Google's business, or a requirement on Google to trade on an arm's length basis with its analytics business and offer analytics to third-party providers. Separation could cover a range of options, from management separation to full ownership separation (divestiture).

## 6. Should LOBRs be applied through antitrust or regulation?

90. Where concerns arise, and issues that might require LOBRs are identified, the question is then whether the issue should be one for competition law or regulation. This is sometimes seen as a choice between the merits of an ex-ante or an ex-post approach. However, it should be noted that whether a decision is taken ex-ante by politicians, or ex-post after an assessment of the market (as when considered under competition law), the result might, in either case, be a decision to set up ex-ante regulation (either as a precautionary step, or as a remedy to address future problems).

91. As noted, in the US, refusal-to-deal (either constructively or otherwise) is an issue for regulation, and not competition law. This clarifies matters in already regulated markets, though the question remains as to who is responsible for identifying the need for regulation of a sector in the first place. In Europe, refusal-to-deal can be dealt with through competition law, whether or not the industry is already regulated. Similarly, margin squeeze cases are common under European competition law. Both can lead to the use of LOBRs as remedies, and so matters are less clear in Europe.

92. It is perhaps notable that in the present debate over digital regulation (see section 5), a number of governments have appointed independent advisory panels in order to help them consider the case for ex-ante regulation. This may reflect government's awareness that competition agencies often prefer not to enter into regulation themselves, and may have an interest in not reducing their remit through the creation of new regulators. Though notably these incentives would differ in those cases where there is a competition agency with regulatory powers (see Australia, New Zealand, Netherlands and Spain). While it is far from clear that such concerns are well-founded, it may nevertheless be helpful to bring an independent perspective to the question, even if the analysis, views and input of the agency remain valuable inputs to the decision.

93. It may also be the case that as circumstances and markets evolve, the extent and role for ex-ante regulation may change. Specific legislation may risk becoming obsolete in such circumstances and so it may be helpful to provide regulators with some flexibility over the rules that they set out in order to meet their objectives. However given the heightened risk of capture that sector regulators run, it may also be worthwhile providing the competition agency with an oversight role in relation to the pro-competitive nature of the regulatory framework that is applied.

## 7. Identifying appropriate and proportionate LOBRs

94. If an LOBR is required, then as noted in Figure 1, there are a range of possible restrictions that might be applied. We focus here on the more common variations.

### 7.1. Structural separation

95. The most forceful intervention is the type of structural separation requirement that is common in electricity and other utility markets. As previously noted, this addresses the underlying incentive problem, but has largely been reserved for ex-ante regulations involving essential facilities. In effect, it follows from a desire to impose a duty-to-deal. It also has explicit backing in legislation, thereby removing the risk of appeal that agencies face in proposing such solutions.

96. The principal benefits of structural separation when compared with access regulation are that separation; limits the need for regulation that can be difficult and costly to devise and implement, and may be only partly effective; it improves information; and it eliminates the risk of cross-subsidies by the incumbent from non-competitive to competitive activities. As Khan (2019) puts it, “*when antitrust enforcers have targeted these forms of [vertical] conduct and structures, they have applied remedies that generally (1) fail to target the underlying source of the problem and (2) overwhelm the institutional capacities of the actors assigned to oversee them. Neglecting structural remedies results in both substantive harms and institutional misalignments—effects that are especially pronounced in digital platform markets*”.

97. However, separation may also involve the loss of efficiencies that can arise from vertical integration, and as noted, may in some cases have a negative impact on incentives to invest in the uncompetitive activity. The 2016 OECD report on implementing the structural separation recommendation therefore suggested that there is no general answer to the question of whether structural separation is beneficial on balance, although beneficial effects have been demonstrated in many instances (OECD, 2016a). Where the benefits of structural separation were doubtful the report identified a complementary relationship between lesser forms of behavioural separation and access regulation, whereby the former may facilitate the task of the latter.

### 7.2. Mandated access under FRAND terms

98. An alternative is the option to impose a duty-to-deal on fair, reasonable and non-discriminatory (FRAND) terms. This does not require separation. Rather, it includes mandating access to a network such as an electricity grid on FRAND terms. In digital markets, some have argued for the application of a duty-to-deal on certain platforms’ in relation to what they identify as essential data (see Guersent, 2019). Indeed, as previously noted, research suggests that access remedies might in fact be optimal in a range of cases in which a firm with market power vertically integrates.<sup>43</sup> This might suggest that the mandatory arbitration remedies that have been applied, and offered in vertical telecoms mergers might offer a useful way forward. See for example, the remedies offered and applied in Microsoft/LinkedIn.<sup>44</sup>

99. However, in the case of data, while FRAND access to large datasets (through arbitration or otherwise) might be mandated, it might be more helpful to focus the mandated access on the specific data that would allow competition in-the-market to unfold. For instance, anonymised search queries (without the returned results), might be provided to an

entrant that requests them unless a user explicitly opts out. Anonymising such data would remove the need to obtain individual consent, and address the possible inertia that can make opt-in schemes a slower and less effective way of facilitating entry.

100. There might be a concern that providing access to anonymised data would create such levels of competition that firms respond by reducing their investment in collecting data. However, it is unclear how significant the impact of this free-riding risk would be, for instance the value of non-anonymised data would remain. Moreover, whether the collection of less data would in fact reduce consumer welfare (e.g. less personalised recommendations), or improve it by reducing investment in rent-seeking price discrimination, is ambiguous and seems likely to depend on individual preferences.

101. A bigger concern might be that mandating FRAND access *without* an opt-out option for users would remove the ability of a consumer to exclude others from accessing their data and hence reduce the value of a consumer's data, in effect transferring that value from consumers to firms (with consequences for income distribution).

102. In other cases, the concern might not be over access to data, but access to a platform or grid. In such cases, an option is to mandate access to the platform or grid on fair, reasonable and non-discriminatory terms. For example, this might ensure neutrality in the ability to gain prominence in search rankings (whether it be general search, or specific search such as app stores, hotel booking etc.).

### 7.3. Non-discrimination obligation

103. Non-discrimination obligations need not also mandate access, or specify fair and reasonable terms; they can be limited to non-discriminatory provisions. An example of a non-discriminatory obligation LOBR is the 2015 EU regulation,<sup>45</sup> and the 2012 Dutch Law, each of which require net neutrality. For example, the Dutch law states that; “Providers of public electronic communication networks used to provide Internet access services as well as providers of Internet access services will not hinder or slow down services or applications on the Internet.”<sup>46</sup>

104. While net neutrality can be seen through a rights-based perspective, it is also possible to interpret net neutrality regulation as a pre-emptive move to set ex-ante non-discriminatory rules to protect competition. Firstly, from exclusion, by removing the possibility that Internet Service Providers (ISPs), which already include integrated ISP & telecoms firms, will squeeze the margins of web-based rival services such as Netflix, Youtube or Spotify. Secondly, from competitive distortions that might result from the simple exploitation of market power, for example if ISPs were to discriminate against more efficient firms whose demand is less elastic (see OECD, 2016b).

### 7.4. Mandated standards for portability and interoperability

105. Less intrusive alternatives include restrictions that mandate standards for portability or interoperability and clarify an individual's access to data that they have co-created. For example, in relation to data, these effectively mandate access to data when the user who co-created that data demands that access be provided, either by deciding to move (port) that data to another firm, or by deciding to give access to the data to another firm (potentially allowing an interoperation between the two firms products if the necessary interoperation standards are in place).

106. In each case the user's demand for porting or interoperations might be enacted by third party firms on their behalf, though the firm would not be able to obtain, or access the data without the user requesting and consenting to it. However, third parties might be able, without a user request, to access the dominant firm's APIs. The APIs are then simply the channels through which the data could be interoperated if the consumer chooses to request it. In and of itself, access to the APIs might not provide access to data, rather they allow firms to build a product that can be pitched to consumers on the basis that it can interoperate with other products if they wish it to do so.

107. Equivalently, in telecoms, this would be the ability for a mobile network to offer the ability to connect users to phone-numbers on rival mobile networks at a price of its own choosing (allowing it to make that price attractive in order to successfully enter the market). Whether or not the user then actually calls (and thereby creates an interoperation with) out-of-network numbers (and pays the price for doing so) is left to the user, but users generally valued the option to do so. These types of solution are therefore common solutions to competitive bottlenecks, where access to an individual consumer tends to be exclusive, as in mobile phone number and current account data.

108. Portability requirements can, as noted, open up the possibility of competition for the bottleneck position (e.g. the ability to port your phone number between telecoms firms). However, portability without interoperability (ability to call a number on a different network), leaves intact the incentive for users to group together on the largest network to obtain network effects (see Mundt, 2020).<sup>47</sup> Interoperability can therefore be the more powerful tool, since it enables consumers to access those network benefits, and hence makes entry and competition-in-the-market more feasible.

109. As noted the leading application of interoperability requirements in a market where access to user data is key can be seen in 'Open Banking'. This was a pro-competitive remedy, which focused on creating new open API standards, to allow the interoperation necessary to foster the development of a new class of innovative business models in which third parties would help consumers to drive competition by providing tools to manage their money and their banking services so as to obtain better value. As noted at the time (see OECD, 2018), these third parties might for example reduce the price that consumers pay by charging lower fees on transactions made using funds in the users bank account, or by searching and automatically switching them into and out of different products for different transactions, or by efficiently reallocating their funds and credit across different products at different times (though this might rely on a wide variety of products offering the same standards).<sup>48</sup>

110. A wider question, that is particularly relevant to the porting of data, is where does an individual's right to their data end (see OECD, 2020b). For instance, might it confer any right to a share of the licensing value of a big dataset into which the individual's data is included (albeit anonymously)? Moreover if not, then should individuals be given the option to license their data to firms on condition that the data will, or equally will not, be able to then be included (anonymously or otherwise) in a larger dataset that might be mined for insight by the firm, or licensed or re-sold to advertisers or for algorithm training purposes?

111. The clarification of such rights, and importantly the creation of tools to *jointly* exercise those rights might then help foster the emergence of new intermediaries that can both drive competition more effectively than individual data portability would, *and* enable users to capture the value of the network effects that they generate for a platform. For example, as discussed a micropayments architecture might be necessary. In considering these possibilities, further thought should also be given to whether these new intermediaries

need necessarily be commercial enterprises (as envisaged by the CMA’s digital advertising market study),<sup>49</sup> or whether they might be set up as civil society organisations such as the ‘data unions’ proposed by Posner & Weyl (2018), Lanier (2013) and Ibarra et al (2018).

## 8. Summary

112. The selection of an appropriate and proportionate LOBR remedy will inevitably depend on the type and extent of the competitive concern that is to be resolved, and the magnitude of the efficiencies that risk being lost. Each of the different types of LOBR that have been discussed appear to have enjoyed success in certain circumstances:

- In many utilities, where economies of scale are such that the infrastructure becomes a natural monopoly, structural separation appears to have worked well in facilitating more effective competition in potentially competitive downstream and upstream markets. It is not always clear which efficiencies might have been lost in order to protect competition in downstream markets. However, if these were considerable we would expect to see clear evidence that utilities without structural separation were more efficient than those with structural separation. As noted the evidence does not support a clear conclusion on this.
- In mobile telecommunications markets, economies of scale have been large but have not always led to the development of natural monopolies. Instead, firms have often invested in parallel infrastructure. In such cases, mandatory portability and interoperability standards (user directed-access) have helped to address powerful network effects and hence facilitate more effective competition.
- In Standard Essential Patents, and in Credit Ratings Agencies and Payment Services there is mandatory access on FRAND terms. Similarly, in the EU, such remedies have been applied to Microsoft’s APIs, and Macgill’s listings data. As noted, Crawford et al. (2018) suggest that such remedies would often be welfare enhancing in vertical broadcasting mergers.

113. The challenge is therefore identifying the right LOBR for the specific problem. For example, if the theory of harm is that access is being denied to an essential facility, and a loss of competition as a result of such an *explicit* refusal-to-deal is established, then the solution will need to focus on allowing access, and applying a duty-to-deal. Hence the appropriate LOBR might include mandatory access on FRAND terms (as the behavioural option), or structural separation to achieve the same access (as the structural option).

114. In contrast, if the regulatory or antitrust concern is not that the firm refuses-to-deal, but that it deals on terms that foreclose through raising rival costs or predation (via some form of margin squeeze, or equivalently a merger leading to margin squeeze), then the solution (were one required) would not focus on mandating access. Instead, the response might be a non-discrimination obligation (without imposing a duty-to-deal on FRAND terms) or to mandate standards for portability and interoperability. Notably, in the case of digital platforms, it would appear that refusal-to-deal is not driving the cases or concerns thus far, and so imposing a duty-to-deal seems unlikely to be the right answer. Instead, the concerns appear to relate to foreclosure through self-preferencing that raises rivals’ costs, meaning that non-discrimination obligations are the more likely LOBR.

115. Moreover, it is not at all clear that many of the digital platforms in question are natural monopolies in which competition cannot take place. Therefore, the approach should

not be to write off the possibility of competition in platform markets (as in regulated infrastructure monopolies) and focus solely on preserving the possibility of competition downstream (or upstream) markets. Instead, there are behavioural LOBRs including standards for portability and interoperability that could facilitate competition within these markets (and thereby begin to resolve the foreclosure risk in downstream markets). However, it may nevertheless be sensible to reinforce these with further LOBRs, for example non-discrimination obligations, in these downstream (upstream) markets to preserve competition while competition in these ‘core’ markets is strengthened. Indeed, there appears to be a good degree of agreement to that effect across the various digital competition reports that have been published in the last year.<sup>50</sup>

## Endnotes

<sup>1</sup> Note for example the debate over the case for government in-sourcing or out-sourcing services (see OECD, 2019).

<sup>2</sup> Though Kwoka & Slade (2020) note the circumstances in which that happens are narrower than appreciated.

<sup>3</sup> Cave (2006) identifies “six degrees” of more intensive functional or operational separation that nonetheless fall short of full ownership separation, namely: creation of a wholesale business division; virtual separation; business separation; business separation with localised incentives; and legal separation involving separate legal entities under the same ownership.

<sup>4</sup> The Court of Justice ruled that price setting by the banking undertakings that make up both the VISA and MasterCard network amount to an anti-competitive agreement, contrary to Article 101 TFEU, where those fees are set at excessive levels.

<sup>5</sup> Parliamentary Commission on Banking Standards, Fifth Report: Changing banking for good, published 19 June 2013, [www.publications.parliament.uk/pa/jt201314/jtselect/jtpcbs/27/2702.htm](http://www.publications.parliament.uk/pa/jt201314/jtselect/jtpcbs/27/2702.htm), at para.53.

<sup>6</sup> Payment Systems Regulation, Policy Statement: A new regulatory framework for payment systems in the UK, PSR PS15/1, published March 2015, <https://www.psr.org.uk/sites/default/files/media/PDF/psr-publications-consultations-psr-ps-15.1.pdf>.

<sup>7</sup> For instance Walmart has twice been denied a banking licence on the basis of such concerns.

<sup>8</sup> For example, as Khan (2019) notes, separation has often also been required between retail banking and commerce activities. Indeed critics of Facebook’s Libra project have expressed concern at the prospect of the operator of a potentially important payment system having market power in display advertising.

<sup>9</sup> Final Report of the Independent Commission on Banking, 2011. <https://webarchive.nationalarchives.gov.uk/20120827143059/http://bankingcommission.independent.gov.uk/>

<sup>10</sup> In France, the Loi n° 2013-672, July 2013, and in Germany, the Law on the separation of risks and the recovery and resolution planning for credit institutions, June 2013.

<sup>11</sup> In the US, courts have followed an approach in which margin squeezes practices are analysed under either a refusal to deal or a predatory pricing framework. For instance, in the *Pacific Bell Telephone Company v. LinkLine Communications Inc.* case, the Supreme Court stated that in the absence of an upstream duty to deal and a lack of predatory prices at the retail market, the incumbent “*is certainly not required to price both of these services in a manner that preserves its rivals’ profit margins*”. Under this view regulatory authorities, relying on the economic principles of access pricing, should deal with any other margin squeezes cases.

<sup>12</sup> Adopting a predatory pricing test for margin squeeze cases may however be problematic. As identified by the EU and Canada in the OECD roundtable on margin squeeze (OECD, 2009), a vertically integrated firm can foreclose its rivals without pricing below cost and hence without violating the rules against predatory pricing. Using a predatory pricing framework for margin squeeze cases therefore risks permitting anticompetitive conduct that harms consumers. Furthermore, since a margin squeeze can be put in place using excessive wholesale prices rather than below cost retail prices the concern over a potential chilling effect on price cutting behaviour does not apply in the same way that it does to predatory pricing.

<sup>13</sup> Commission Decision of 15 October 2014 in Case AT.39523 — Slovak Telekom, [https://ec.europa.eu/competition/antitrust/cases/dec\\_docs/39523/39523\\_5272\\_13.pdf](https://ec.europa.eu/competition/antitrust/cases/dec_docs/39523/39523_5272_13.pdf).

<sup>14</sup> Though EU officials have signalled that this approach might need to change in cases involving digital markets prone to tipping, since harm can materialise “in such a way that there is no way back once the harm has reached a certain point”. Such cases may require remedies “beyond the normal cease-and-desist”, such as “restorative or prescriptive remedies” that address the harm or restore competitive conditions. Nick Banasevic, ABA Spring meetings, 2020. <https://globalcompetitionreview.com/article/1226094/dg-comp-official-eu-is-considering-%E2%80%9Crestorative-or-prescriptive%E2%80%9D-antitrust-remedies>

<sup>15</sup> See OECD (2007) p38, and Salop (2018).

<sup>16</sup> Aspen Highlands Skiing Corp. v. Aspen Skiing Co., <https://law.justia.com/cases/federal/appellate-courts/F2/738/1509/135745/>.

<sup>17</sup> Commission Decision of 21 December 1988 in Case IV/31.851 — Magill TV Guide/ITP, BBC and RTE, <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1586267905734&uri=CELEX:31989D0205>.

<sup>18</sup> Commission Decision of 14 December 1972 in Case IV/26.911 — ZOJA/CSC - ICI, <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1586266741023&uri=CELEX:31972D0457>.

<sup>19</sup> Aspen Skiing, 472 U.S. at 592-94.

<sup>20</sup> See e.g., Case C-230/16 Coty Germany GmbH v Parfümerie Akzente GmbH, EU:C:2017:941.

<sup>21</sup> In the EU, following the judgement of the Court of Justice of the European Union in *Bronner* (Case C-7/97 Oscar Bronner GmbH & Co. KG v Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG and others, EU:C:1998:569), the European Commission set out three conditions to consider a refusal-to-deal case as an enforcement priority. The first was that the refusal relates to a product or service that is objectively necessary to be able to compete effectively on a downstream market. The second was that the refusal is likely to lead to the elimination of effective competition on the downstream market. The third was that the refusal is likely to lead to consumer harm (Guidance on the Commission’s enforcement priorities in applying Article 82 of the EC Treaty (now art. 102 TFEU) to abusive exclusionary conduct by dominant undertakings [2009] OJ C 045/7, para. 81).

In Japan, the Japan Fair Trade Commission considers that refusal-to-deal, “*beyond reasonable degree, concerning a product necessary for the trading customers to carry out their business activities in the downstream market*” may constitute an abusive exclusionary conduct. Guidelines for Exclusionary Private Monopolization under the Antimonopoly Act (tentative translation in English), p. 25. The guidelines further state that the necessity of a product for the customers is assessed from the view point of whether a) the product is unsubstitutable and indispensable and b) it is impossible in reality to produce the product through the customers’ own effort. See: [https://www.jftc.go.jp/en/legislation\\_gls/imonopoly\\_guidelines\\_files/guidelines\\_exclusionary.pdf](https://www.jftc.go.jp/en/legislation_gls/imonopoly_guidelines_files/guidelines_exclusionary.pdf)

The Australian Competition and Consumer Commission also considers that “[e]ven if a firm has a substantial degree of market power, there is usually no obligation for it to deal with other firms” and “in limited circumstances, a refusal to deal by a firm with a substantial degree of market power may amount to a contravention of [Australian competition law]”. Guidelines on misuse of market power, para. 3.3. et seq.

In contrast, in the US, the Supreme Court in *Trinko* made clear its scepticism of the essential facilities doctrine, confirming the principle that there are no duties to deal under the antitrust laws beyond those set out by specific regulations.

<sup>22</sup> As we note below, while the constructive refusal to deal offence deals with the possibility that a firm might constructively refuse to deal an essential facility, it is (in the EU) not only used for such cases, and hence does not require an essential facility in the way that an explicit refusal to deal does.

<sup>23</sup> Notably in *Slovak Telekom*, in addition to a margin squeeze, the EU also find a constructive refusal-to-deal without there being an indispensable input. The EU explains that the ECJ has clarified that while indispensability is required for an explicit or outright refusal-to-deal (under *Bronner*), it is not required for a constructive refusal-to-deal, as is the case in *Slovak Telekom*. In effect, this identifies the unfair trading conditions imposed by *Slovak Telekom* as imposing harm through a mechanism that is equivalent in effect to a margin squeeze, and not to a refusal-to-deal (‘constructive margin squeeze’ in a sense). It would therefore be more helpful in such cases to refer explicitly and directly to the underlying mechanism for leveraging market power as being one of “raising rivals’ costs” (or in other cases of “predation”), since it is well understood that these mechanisms do not require indispensability in order to harm competition, rather than to margin squeeze and constructive refusal-to-deal. In particular, it is well established in the EU that outright refusal-to-deal requires indispensability, and so it might naturally be expected that constructive refusal-to-deal would require the same. This suggests that the term “constructive refusal-to-deal” is sometimes overused.

<sup>24</sup> See Kwoka & Slade (2020) identifying the limitations of eliminating double marginalisation, alongside Baker, Rose, Salop & Scott Morton (2020).

<sup>25</sup> Final-offer arbitration requires opposing parties to blindly submit a proposed award to the arbitral tribunal. The proposed awards are published before a hearing takes place. After publication (and depending on the reasonableness of the proposals) many parties decide to settle. If the arbitration proceeds to a hearing, it will generally be streamlined and time constricted to ensure efficiency. Lastly, when the tribunal makes a decision, it must choose for one of the two proposals and has no ability to award any amount between or outside of the proposals. <https://changarbitration.com/2019/04/att-implements-baseball-arbitration-to-save-time-warner-merger/>

<sup>26</sup> Turner owns CNN, TBS, TNT and other networks that air news, sports and other programming.

<sup>27</sup> As noted by Tucker (2020), firms are often able to control access to a particular dataset. What they are far less able to do is to control the ability of rival firms to create a similar dataset. In particular, they are unable to control the ability of a rival firm to create a dataset which offers similar insights.

<sup>28</sup> APIs are application programming interfaces. Whereas a User Interface (UI) allows a human being to use a software application, an API allows one piece of software to use another application's data or functionality. For example, the API on Google Maps gives third party developers the building blocks that make it simple to embed Google Maps on their own webpages.

<sup>29</sup> This is not to underestimate the difficulty of such entry, or to suggest that it is likely, but simply to identify the mechanism by which it could happen.

<sup>30</sup> Though it might tend to reduce its efficiency.

<sup>31</sup> This contrasts with the suggestion that ex-ante regulation would only be justified if the adjacent market (e.g. books) were not competitive, <https://chillingcompetition.com/2020/04/24/on-the-possible-ex-ante-regulation-of-online-platforms-i-lessons-from-the-eu-telecoms-regime/>

<sup>32</sup> See discussion in Caffara (2020).

<sup>33</sup> Decision B6-22/16 of 6 February 2019. Case summary in English is available at [https://www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Fallberichte/Missbrauchsaufsicht/2019/B6-22-16.pdf?\\_\\_blob=publicationFile&v=4](https://www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Fallberichte/Missbrauchsaufsicht/2019/B6-22-16.pdf?__blob=publicationFile&v=4).

<sup>34</sup> OLG Düsseldorf, August 26, 2019, Case VI-Kart 1/19 (V).

<sup>35</sup> Wen, W. and F. Zhu (2019), "Threat of platform-owner entry and complementor", *Strategic Management Journal*, Vol. 40/9, <https://doi.org/10.1002/smj.3031>.

<sup>36</sup> Italian Competition Authority, Amazon: investigation launched on possible abuse of a dominant position in online marketplaces and logistic services, 16 April 2020, <https://en.agcm.it/en/media/press-releases/2019/4/Amazon-investigation-launched-on-possible-abuse-of-a-dominant-position-in-online-marketplaces-and-logistic-services>.

<sup>37</sup> [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_19\\_4291](https://ec.europa.eu/commission/presscorner/detail/en/IP_19_4291)

<sup>38</sup> e.g. [here](#)

<sup>39</sup> <https://www.gov.uk/government/organisations/groceries-code-adjudicator>

<sup>40</sup> See also New York Times, Prime Leverage: How Amazon Wields Power in the Technology World, 15 December 2019, <https://www.nytimes.com/2019/12/15/technology/amazon-aws-cloud-competition.html>.

<sup>41</sup> ACM, Extension of enforcement toolkit to increase effectiveness in dealing with competition problems in the digital economy, [https://www.acm.nl/sites/default/files/documents/ex-ante-tool\\_0.pdf](https://www.acm.nl/sites/default/files/documents/ex-ante-tool_0.pdf), supporting government proposals for regulation that requires behavioural LOBRs such as non-discriminatory ranking, platform access, data portability, and data-sharing.

<sup>42</sup> <https://www.gov.uk/cma-cases/online-platforms-and-digital-advertising-market-study#interim-report>

<sup>43</sup> See Crawford et al. (2018).

<sup>44</sup> Commission decision of 6 June 2012 in Case M.8124 – Microsoft/LinkedIn, [2016] OJ/C 388/04, para 447.

<sup>45</sup> Article 3 of EU Regulation 2015/2120 laying down measures concerning open internet access and amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services and Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the Union, OJ L 310, 26.11.2015, p. 1–18.

<sup>46</sup> Article 7.4a of the Dutch Telecommunications Act, June 2012, <https://www.government.nl/documents/policy-notes/2012/06/07/dutch-telecommunications-act>.

<sup>47</sup> <https://globalcompetitionreview.com/article/1226072/mundt-%E2%80%9C9Csceptical%E2%80%9D-of-data-portability-impact>

<sup>48</sup> For instance, the Open Banking standards initially applied only to current accounts of nine banks.

<sup>49</sup> See Annex L, pp6-12, of the CMA interim report on the digital advertising market study [https://assets.publishing.service.gov.uk/media/5df9efa2ed915d093f742872/Appendix\\_L\\_Potential\\_approaches\\_to\\_improving\\_personal\\_data\\_mobility\\_FINAL.pdf](https://assets.publishing.service.gov.uk/media/5df9efa2ed915d093f742872/Appendix_L_Potential_approaches_to_improving_personal_data_mobility_FINAL.pdf)

<sup>50</sup> For example, Furman et al. (2019), Cremer et al. (2019), Scott-Morton et al. (2019), and ACCC (2019).

## Bibliography

- ACCC (2019), Digital platforms inquiry - final report, <https://www.accc.gov.au/system/files/Digital%20platforms%20inquiry%20-%20final%20report.pdf>.
- Baker, J. (2014), Note on 'Single Monopoly Profit' Theory, [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2496932](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2496932).
- Baker, J., Rose, N., Salop, S. & Scott Morton, F. (2020), Recommendations and Comments on the Draft Vertical Merger Guidelines (February 24, 2020), <https://ssrn.com/abstract=3543736>.
- Biggar, (2016), The Transformation of the Electricity Sector in Australia: The Public Policy and Competition Policy Issues, [https://one.oecd.org/document/DAF/COMP/WP2/WD\(2017\)1/en/pdf](https://one.oecd.org/document/DAF/COMP/WP2/WD(2017)1/en/pdf)
- Biggar (2019), Contribution to “When should regulated monopolies be allowed to participate in competitive sectors?” July 2019, <https://www.youtube.com/watch?v=SaUpI8Pn1pk&feature=youtu.be>
- BMWi (2019), A new competition framework for the digital economy - Report by the Commission ‘Competition Law 4.0’, September 2019, <https://www.bmwi.de/Redaktion/EN/Pressemitteilungen/2019/20190909-commission-of-experts-on-competition-law-40-presents-final-report-to-minister-altmaier.html>.
- Bostoen, Friso (2017), Online Platforms and Vertical Integration: The Return of Margin Squeeze? (2017), Journal of Antitrust Enforcement 2018, Vol. 6(3), 355-381; Faculty of Law, Stockholm University Research Paper No. 42, <https://ssrn.com/abstract=3075237>.
- Caffara, C. (2020), The UK’s “other” big experiment: Regulating online platforms?, <https://voxeu.org/content/uk-s-other-big-experiment-regulating-online-platforms>.
- Cave, Martin E. (2006), Six Degrees of Separation Operational Separation as a Remedy in European Telecommunications Regulation, COMMUNICATIONS & STRATEGIES, No. 64, p. 89, 4th Quarter 2006, <https://ssrn.com/abstract=994798>.
- Colomo, P. I. (2019), Legal Tests in EU Competition Law: Taxonomy and Operation, Journal of European Competition Law & Practice, Volume 10, Issue 7, September 2019, Pages 424–438, <https://doi.org/10.1093/jecclap/lpz045>.
- Crawford, G. et al. (2018), The Welfare Effects of Vertical Integration in Multichannel Television Markets, Econometrica, Vol. 86/3, pp. 891-954, <https://www.econometricsociety.org/publications/econometrica/2018/05/01/welfare-effects-vertical-integration-multichannel-television>
- Cremer et al. (2018), Competition policy for the digital era, <https://op.europa.eu/s/n3Ov>.
- European Commission (2009), Communication from the Commission — Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty [102 TFEU] to abusive exclusionary conduct by dominant undertakings, C(2009) 864 final, [2009] OJ C 45/7 [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52009XC0224\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52009XC0224(01)&from=EN)
- Feng Zhu & Qihong Liu (2018), Competing with Complementors: An Empirical Look at Amazon.com, 39 Strategic Management Journal. 2619 (2018), <https://doi.org/10.1002/smj.2932>.
- Furman, J. et al. (2019), Unlocking Digital Competition: Report of the Digital Competition Expert Panel, 2019, [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/785547/unlocking\\_digital\\_competition\\_furman\\_review\\_web.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/785547/unlocking_digital_competition_furman_review_web.pdf).
- Guersent, O. (2019), Hearing at the French Senate of Mr Olivier Guersent, Director-General of DG Competition at the European Commission, 29 January 2019, [https://www.europarl.europa.eu/doceo/document/E-9-2020-000595\\_EN.html](https://www.europarl.europa.eu/doceo/document/E-9-2020-000595_EN.html); <http://www.senat.fr/compte-rendu-commissions/20200127/eco.html#toc4>.
- Ibarra, IA., Goff, L., Hernandez, D.J., Lanier, J. & Weyl, GE. (2018), Should We Treat Data as Labor? Moving beyond "Free" AEA papers and proceedings, vol. 108, May 2018 pp38-42

- ICLE (2019), The Weaknesses of Interventionist Claims, ICLE Report, June 2019, <https://laweconcenter.org/wp-content/uploads/2019/07/Concluding-Comments-The-Weaknesses-of-Interventionist-Claims-FTC-Hearings-ICLE-Comment-11.pdf>.
- Kaplow, L. (1985), Extension of Monopoly Power through Leverage, *Columbia Law Review*, Vol. 85/3, pp. 515-556, [https://www.jstor.org/stable/1122511?seq=1#page\\_scan\\_tab\\_contents](https://www.jstor.org/stable/1122511?seq=1#page_scan_tab_contents).
- Khan, Lina M. (2019), The Separation of Platforms and Commerce, 119 *Colum. L. Rev.* 973 (2019), <https://columbialawreview.org/content/the-separation-of-platforms-and-commerce/>.
- Kwoka, J. & Slade, M. (2020), Second Thoughts on Double Marginalization, *Antitrust*, Vol. 34, No. 2, Spring 2020, [https://www.americanbar.org/content/dam/aba/publishing/antitrust\\_magazine/atmag-spring2020/sprng20-kwoka.pdf](https://www.americanbar.org/content/dam/aba/publishing/antitrust_magazine/atmag-spring2020/sprng20-kwoka.pdf)
- Lanier, J. (2013) *Who Owns the Future?* New York: Simon & Schuster.
- OECD (2001), Recommendation of the Council concerning Structural Separation in Regulated Industries, adopted on 26 April 2001 [C(2001)78/FINAL], amended on 13 December 2011 [C(2011)135 and CORR1] and on 23 February 2016 [C(2016)11 - C/M(2016)3], [www.oecd.org/daf/competition/recommendations.htm](http://www.oecd.org/daf/competition/recommendations.htm).
- OECD (2007), Refusal to deal, <http://www.oecd.org/daf/43644518.pdf>
- OECD (2009), Margin Squeeze, DAF/COMP(2009)36, <https://www.oecd.org/daf/competition/sectors/46048803.pdf>.
- OECD (2016a), Structural separation in regulated industries: Report on implementing the OECD Recommendation, <http://www.oecd.org/daf/competition/Structural-separation-in-regulated-industries-2016report-en.pdf>.
- OECD (2016b), Price discrimination, DAF/COMP(2016)15, [https://one.oecd.org/document/DAF/COMP\(2016\)15/en/pdf](https://one.oecd.org/document/DAF/COMP(2016)15/en/pdf).
- OECD (2017), A Chain Reaction: Disruptive Innovation in the Electricity Sector, <https://www.oecd.org/competition/A-chain-reaction-disruptive-innovation-in-the-electricity-sector.pdf>
- OECD (2018), Financial Markets, Insurance and Private Pensions: Digitalisation and Finance, Chapter 5 - Competition and open application programming interface standards in banking, <http://www.oecd.org/finance/Financial-markets-insurance-pensions-digitalisation-and-finance.pdf>.
- OECD (2019), Competition for-the-market, DAF/COMP/GF(2019)7, [https://one.oecd.org/document/DAF/COMP/GF\(2019\)7/en/pdf](https://one.oecd.org/document/DAF/COMP/GF(2019)7/en/pdf).
- OECD (2020a), Conglomerate effects of mergers, <http://www.oecd.org/daf/competition/conglomerate-effects-of-mergers.htm>
- OECD (2020b), Consumer data rights and competition data rights, <http://www.oecd.org/daf/competition/consumer-data-rights-and-competition.htm>.
- OECD (2020c), Start-ups, killer acquisitions and merger control, <http://www.oecd.org/daf/competition/start-ups-killer-acquisitions-and-merger-control.htm>
- Posner, E.A. & Weyl, G. (2018), *Radical Markets: Uprooting Capitalism and Democracy for a Just Society*. Princeton: Princeton University Press
- Salop, S. (2018), Invigorating Vertical Merger Enforcement, *The Yale Law Journal*, Vol. 127/7, pp. 1962-1994, [https://www.yalelawjournal.org/pdf/Salop\\_uidpngq1.pdf](https://www.yalelawjournal.org/pdf/Salop_uidpngq1.pdf).
- Scott-Morton, F. et al. (2019), Committee for the Study of Digital Platforms Market Structure and Antitrust Subcommittee Report, <https://som.yale.edu/sites/default/files/CompetitionDigitalPlatformsStigler19.pdf>.
- Slade, M. & Lafontaine, F. (2007), Vertical Integration and Firm Boundaries: The Evidence, *Journal of Economic Literature*, vol. 45, p. 629-685, <https://www.aeaweb.org/articles?id=10.1257/jel.45.3.629>.
- Tucker, C. (2020), Digital Data as an Essential Facility: Control, *CPI Antitrust Chronicle* February 2020, <https://www.competitionpolicyinternational.com/wp-content/uploads/2020/02/CPI-Tucker.pdf>.

Veljanovski, C. (2012), Margin Squeeze: An Overview of EU and National Case Law (June 7, 2012), e-Competitions: Competition Laws Bulletin, No. 46442, <https://ssrn.com/abstract=2079117>.

Wen, W. and F. Zhu (2019), “Threat of platform-owner entry and complementor”, *Strategic Management Journal*, Vol. 40/9, <https://doi.org/10.1002/smj.3031>.

Wong-Ervin, K. (2019), U.S. Vertical Merger Guidelines: Recommendations and Thoughts on EDM and Merger Specificity, CPI, January 2020.