

Damage Quantification in Exclusionary Abuse Cases

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Abstract

The last decade has witnessed a changing scene of exclusionary abuse cases. As a result, competition authorities around the globe are now investigating new forms of exclusionary abuse in fast-evolving markets. These changes inevitably affect our understanding of the harm caused by exclusionary conduct and how redress is sought. Although there are many academic and practitioner papers on estimating damages in cartel and excessive pricing cases, they have limited applicability to exclusionary cases. This paper provides an overview of the main considerations that should apply in damage quantification in exclusionary abuse cases. We do this by giving a detailed account of the main characteristics of damage claims in these cases, reviewing the theories of harm and, building on these theories, discussing possible counterfactuals and methods for estimating the magnitude of harm.

Keywords

exclusionary abuse, damage claims, theory of harm, counterfactuals

I. Introduction

A decade has passed since the European Parliament issued its Directive on damages for competition law infringements.¹ During this time, courts have seen a steady rise in claims in cartel cases² and also, more recently, in damages caused by excessive pricing practices. This growing body of case law has shaped best practices for quantifying damages, where the key challenge lies in identifying a credible counterfactual price unaffected by the infringement and comparing it with the observed price.

By contrast, damage claims in exclusionary abuse cases have been relatively rare, though this trend is unlikely to persist. Over the past decade, there has been a notable rise in the public enforcement of

1. Directive 2014/104/EU of the European Parliament and of the Council of 26 November 2014 on certain rules governing actions for damages under national law for infringements of the competition law provisions of the Member States and of the European Union (hereinafter: Damages Directive).
2. Laborde counts 299 cartel damage actions before 2020. J-F Laborde, ‘Cartel Damages Actions in Europe: How Courts Have Assessed Cartel Overcharges (2021 ed.)’ [3-2021] *Concurrences* 232, para 16. Prominent examples include *Royal Mail Group Ltd v. DAF Trucks Ltd* [2023] CAT 6; *BritNed Development Ltd v. ABB AB* [2018] EWHC 2616 (Ch).

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exclusionary abuse cases. Since 2008, European courts have made over thirty judgments in such cases,³ reflecting evolving behaviors and novel theories of harm. In parallel, the European Commission and national authorities have investigated a wide range of exclusionary practices—such as margin squeeze, predatory pricing, rebates, refusal to supply, tying, and self-preferencing. Many of these cases involve large digital platforms (Google Shopping, Android, AdSense, and Apple App Store), where exclusion can have lasting effects on market structure.⁴ In the United Kingdom, enforcement has also addressed margin squeeze in the water and telecoms sectors, where access terms and input pricing can be exclusionary. Moreover, in response to the shifting legal landscape, the European Commission launched a review in 2023 to update its guidance on exclusionary abuses⁵—addressing, among other issues, the relevance of profitability, the role of the as-efficient-competitor test, and the assessment of input foreclosure.

Unsurprisingly, more damage claims based on exclusionary conduct are now reaching courts, for example, building on major European Commission (EC) and court decisions or commitments by firms. Other cases draw on the UK's Competition and Markets Authority's (CMA) market studies to claim exclusionary strategies by dominant firms.

Despite this momentum, guidance on quantifying damages in exclusionary abuse cases remains underdeveloped. A few judicial statements (especially in the United Kingdom) touch on causation and counterfactuals, and a few judgments provide guidance on how economic tools should be applied in exclusionary abuse contexts.⁶ Although the topic has received some academic attention, the most comprehensive treatment remains a 2009 Oxera-led study,⁷ which reviewed theoretical and empirical literature across cartel and abuse cases. Since then, various shorter contributions have emerged—for example, Maier-Rigaud and Schwalbe⁸ and Buccirosi.⁹ This paper builds on these efforts to offer a more focused analysis of exclusionary abuse damages, incorporating recent legal and economic developments.

Quantifying harm in exclusionary abuse can be significantly more complex than in pricing infringements like cartels or excessive pricing. Although both involve comparing actual outcomes to a counterfactual, the nature of harm in exclusionary cases is more diverse. Cartel and excessive pricing harm typically arises from inflated prices.¹⁰ By contrast, foreclosure can reduce rivals' sales, force exit, or block entry—causing direct profit losses. This requires a broader set of counterfactual scenarios. Moreover, exclusionary abuse differs in who can claim damages (e.g., rivals or potential rivals), which outcomes are relevant (e.g., lost profits), and how long harm may persist.

The theory of harm plays a central role in exclusionary cases. Damage quantification is not a purely arithmetic task of comparing two outcomes but requires a rigorous understanding of how exclusion

3. <https://gorrissenfederspiel.com/en/abuse-of-dominance-quarterly-newsletter-q1-2024/>.

4. See, for example, Commission Decision of 27 June 2017 in Case AT.39740—Google Search (hereinafter Google Shopping); Commission Decision of 18 July 2018 in Case AT.40099—Google Android (hereinafter Google Android); Commission Decision of 20 March 2019 in Case AT.40411—Google AdSense (hereinafter Google AdSense). See also *Epic Games v. Apple Inc.*, 559 F. Supp. 3d 898.

5. Since the 2009 guidance: Communication from the Commission—Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, OJ C 45, 24.2.2009, 7–20.

6. For example, *2 Travel v. Cardiff City Transport Services Limited* [2012].

7. Oxera, *QUANTIFYING ANTITRUST DAMAGES: TOWARDS NON-BINDING GUIDANCE FOR COURTS* (2010) Study prepared for the European Commission.

8. Frank Maier-Rigaud and Ulrich Schwalbe, *Quantification of antitrust damages*, in DAVID ASHTON, *COMPETITION DAMAGES ACTIONS IN THE EU AND THE UK: LAW AND PRACTICE* (Edward Elgar Publishing 2013).

9. Paolo Buccirosi, *Quantification of Damages in Exclusionary Practice Cases*, 1 J. EUR. COMPETITION L. & PRAC. 252–56 (2010).

10. Though there can also be harms resulting from, for instance, reduced innovation or unfair trading conditions.

11. *BritNed Developments Ltd v ABB AB* [2018] at 12(8)(d).

distorts market outcomes. This is critical to establishing a credible counterfactual¹¹ and to grounding damage estimates in economic logic.

Exclusionary abuse cases in digital markets also call for a nuanced approach to damage quantification, because exclusionary conduct may lead to enduring harm due to network effects and economies of scale. Once rivals are pushed out, the market may tip irreversibly, leaving damage claims as the only avenue for redress. The two-sided nature of many platforms adds further complexity. For example, if an app store is excluded from a mobile platform, it loses both users and developers, compounding its competitive disadvantage. Ignoring such cross-side effects risks underestimating harm.

This paper aims to support the development of a structured approach to damage quantification in exclusionary abuse cases. It does not propose a new legal test or model, but identifies the key economic considerations that should inform analysis, and offers a practical framework for courts and experts. We draw on established legal principles, economic theory, and relevant case law, though we do not address every aspect of a damages claim, such as causation or alternative explanations for exclusion. Nor do we consider exploitative abuses, except to highlight their distinction from exclusionary conduct.¹²

Our main focus is on constructing counterfactuals—assessments of what would have happened without the abuse. In many cases, the issue is not whether harm occurred, but what the claimant's position would have been but for the exclusion. This depends on understanding the theory of harm, the mechanisms of exclusion, and the claimant's market trajectory. These factors, in turn, determine whether to assess harm through lost profits, lost value, or other measures.

The following roadmap is useful for understanding how each of our sections link up. Section 2 examines the particular characteristics and challenges associated with damages claims in exclusionary conduct cases, as compared with the more common situations involving cartel overcharges or excessive pricing. These challenges make it necessary to set out a clear theory of harm, as discussed in Section 3, including a distinction between vertical and horizontal cases and an understanding of how each develops. Only once a sound theory of harm has been established can an appropriate counterfactual be constructed, taking into account whether the market structure is stable or evolving over time (Section 4). Section 5 then presents the tools for quantifying damages, based on comparisons between actual outcomes and the counterfactual, and addressing both direct claimants and, where relevant, indirect claimants, including the issue of pass-on. The final section draws together the main arguments, particularly in comparison with some of the better known follow-on damages cases involving cartel overcharges or excessive pricing. While the focus is on the United Kingdom and the European Union (EU), we also reference developments from other jurisdictions where relevant.

II. Exclusionary Abuse Damages—What Is Different?

Exclusionary abuse involves conduct by a firm with market power that impairs rivals' ability or incentive to compete. Typically, it refers to actions that prevent competitors from entering or remaining in a market. Such conduct is not inherently anticompetitive and may, in some cases, be procompetitive. Distinguishing between the two is central to assessing alleged abuse. While this paper does not address infringement directly, it is worth recalling the EU Court of Justice's position on this distinction, which emphasizes that the conduct of an undertaking in a dominant position is to be characterized as abusive only if that conduct is shown to be capable of restricting competition and, in the case in question, of producing the alleged exclusionary effects.¹³ In the following subsections, we review the main characteristics of exclusionary abuse claims.

12. We acknowledge that there is a direct link between the two types of abuse, in that many exploitative abuses may indirectly be the result of some sort of exclusionary practice, if the dominant position that is being leveraged was achieved and preserved through the exclusion of rivals. That said, exclusionary abuse does not necessarily precede exploitative abuse.

13. See, for example, Judgment in Case C-377/20 Servizio Elettrico Nazionale and Others.

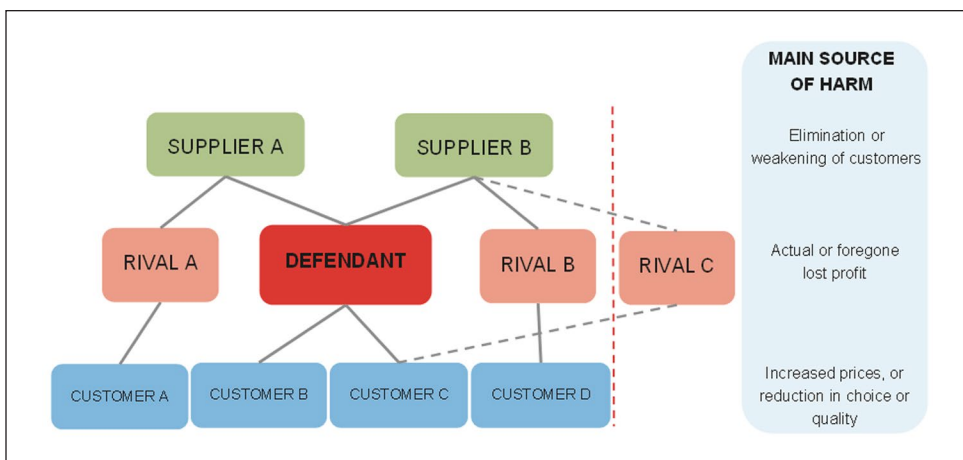


Figure 1. Parties (potential claimants) affected by the defendant's exclusionary conduct.

A. Multisided Incidence of Harm

Quantifying damages is inevitably linked to the restriction of competition and the exclusionary effects, which requires a different approach from exploitative abuses or cartels. First, as we summarize in Figure 1, the harm does not just affect the dominant firm's own customers, but can affect its rivals and suppliers as well.

- (1) When the harm affects direct *rivals* (Rivals A and B on the figure), it does so through these rivals losing business, either by reducing their customer base or forcing them out of the market entirely. It is also possible that a potential entrant (Rival C) is kept out of the market because of the abuse. The harm suffered by actual and potential rivals can be the actual losses suffered due to the exclusionary practice (*damnum emergens*), and the foregone profit the claimant would have reasonably expected from being able to grow in a market without the abuse (*lucrum cessans*).
- (2) *Customers* of the defendant are harmed indirectly if the abuse lowers the intensity of competition between the defendant and its rivals, and, as a result, customers end up paying higher prices or receiving lower-quality products. Customers of the rivals (or potential rivals) can also be affected by the exit of their favored product choice from the market. For example, in Figure 1, Customer C would purchase from Rival C if it entered the market, but it cannot do so because the defendant's conduct keeps Rival C from entering. The main source of harm is likely to be due to increased prices or a reduction in choice or quality as a result of the softening of competition due to the exclusion.
- (3) *Suppliers* of the defendant can be affected by the elimination or weakening of their customers (Rivals A and B), and the resultant increase in the buyer power of the defendant.

B. Indirectness and Diversity of Harm

In excessive pricing or cartel cases, the focus is typically on the prices paid by claimants, and the quantification of the damage follows directly from establishing what the counterfactual price would have been. With exclusionary abuse, whether the claimant is a rival, a customer, or a supplier influences what the damage calculations should be based on.

14. See, for example, 2 Travel Group PLC (in liquidation) v Cardiff City Transport Services Limited.

- (1) Where the claimant is the defendant's *rival*, the relevant market outcome is typically the rival's *revenue* or *profit*.¹⁴ Price may also play an important role in establishing the abuse (e.g., to prove predatory pricing), but is less likely to be informative for quantifying the damage, because in exclusionary abuse, it is possible that prices did not change or even fell, yet the claimant suffered damage. In anticompetitive rebates, the rivals of the defendant could be claiming damages, even though the rebate itself reduced prices for the defendant's customers. In these cases, other outcome metrics, such as claimant revenues and profits, are used for calculating damages.
- (2) *Prices* can be the relevant metric for damage calculation where the claimant is the *customer* of the dominant firm (or their rivals). For example, in the ongoing class action lawsuits against Google and Apple in Australia, the claimants—claiming damages, among others, because of the high commission rate in app stores—argue that, in the absence of Google and Apple's behavior (the exclusionary conduct), rival app stores would have entered the market and would have brought down the commission rate.¹⁵ As such, consumers of digital content on app stores claim damages for the harm resulting from an exclusionary abuse. As we will discuss in detail below, the dynamics of exclusionary abuse play a crucial role in thinking about price-related damage claims (during the attrition phase of the abuse, the dominant firm may reduce prices and only increase them later in the recoupment phase).
- (3) Finally, a currently less common claim could come from the *suppliers* of the defendant, who could be harmed by reduced *revenues* through two channels. First, as a result of some of their customers leaving the market, and second, by the increased buyer power of the defendant, if that leads to lower prices paid by the defendant to the suppliers.

The nature of harm may also vary. Some claimants may have lost profits from sales they were unable to make; others may have lost access to scale economies, reputational benefits, or future investment. In some cases, the harm may be reflected in foregone innovation or lost competitive pressure—affecting not just individual firms but the overall performance of the market. These harms are no less serious—and may be long-lasting—but they are often more difficult to measure.¹⁶

C. Challenges of Causation and Counterfactuals

Establishing a causal link (econometric identification) between the defendant's behavior and the outcomes listed above can be more difficult than in exploitative abuse cases. The dominant firm may argue that any harm to rivals or third parties was due to unrelated factors, such as poor business decisions, lack of investment, or weak products. These arguments are often fact-sensitive, but they should not be accepted uncritically. In such cases, the right question is whether the claimant's position would likely have been materially better absent the abuse, not to demand certainty about what would otherwise have happened.¹⁷ Courts recognize that damage assessments often involve estimates, and precision is not required where real loss resulted from the defendant's conduct.

For causality, the counterfactual therefore plays a central role, and it is likely to depend on who the claimant is and how the harm occurred. In the case of a claim from the defendant's rivals, exclusionary abuse can lead to a reduction in the claimant's profits through a reduction in (1) sales in the market, (2) the future investments the claimant would have reasonably expected to receive or make, and (3) efficiency.

- i. Quantification of the harm through *reduced sales* requires the establishment of the counterfactual level of sales/revenue/profits, and the damage is calculated as the difference between the factual and the counterfactual.¹⁸ Establishing the counterfactual can be more complex than in

15. <https://mlexmarketinsight.com/news/insight/apple-expert-denies-app-store-commission-overcharge-claim-in-australian-antitrust-lawsuit>.

16. See OECD, *Abuse of Dominance in Digital Markets* (2020), www.oecd.org.

17. 2 Travel Group PLC v. Cardiff City Transport Services Ltd [2012] CAT 19.

18. See, for example, Achilles Information Limited v. Network Rail Infrastructure Limited [2022] CAT 9. 11 February 2022. Case No: 1298/5/7/18, paras. 158–67.

exploitative abuse cases, where the task is to find a counterfactual benchmark where prices are not excessive or, in cartel cases, where the task is even simpler, to find the price without the cartel. But where the abuse excludes a firm from the market, one would need to find a but-for outcome where the claimant was not excluded from the market. One possibility is to look at the pre-abuse status quo, but in an evolving market, this may not give a good picture of the likely market dynamics absent the abuse. On the other hand, comparator markets should be exposed to similar demand- and supply-side shocks as the market without the abuse. In section IV, we discuss the main issues related to finding such a counterfactual.

- ii. Although it may be more difficult to prove causality between the abuse and *lost future investments*, it is not uncommon in case law. A counterfactual-based method would need to find a comparator firm or market that is similar to the firm/market affected by the abuse but was not affected by the abuse and to compare levels of investments across the factual and counterfactual. Qualitative evidence, such as draft contracts or communication between the claimant and potential investors, may be more readily available than quantitative information.¹⁹
- iii. Identification is similarly difficult in cases where the claimant became less efficient as a result of the abusive conduct, because *reduced efficiency* can be both the consequence of the abuse and the reason why the claimant had to exit the market in the first place. Damages can only be claimed to the extent that the loss in efficiency happened because of the abuse. Studying the claimant's and the defendant's costs before the infringement can be useful evidence in these cases, but establishing causality remains far from trivial.

Where the claim comes from the customers of the defendant, the quantification task is similar to that in excessive pricing cases, but the causal link between the abuse and the harm is no longer direct, because the abuse first has to reduce competition between the defendant and its rivals, and the price increase is conditional on this extra step of reduced competition. Similarly, where the claim comes from suppliers, their harm is conditional on the reduced competition due to the exclusion of the defendant's actual or potential rivals.

D. Time Horizon and Market Dynamics

Defining the relevant period for damage quantification may be difficult in exclusionary abuse cases because harm can potentially last after the infringement stops. For example, the market may have changed, and it may no longer be viable for the excluded firm to reenter. In Google Shopping, one of Google's rival Comparison Shopping Services (CSS) claimed that, as a result of Google's conduct, it had closed its London and Irish offices; reduced its Hamburg office; ceased work on its websites in Italy, Spain, and the Netherlands; and was about to cease work on its websites in France and in the United Kingdom.²⁰ It is unlikely that after such dramatic changes, lasting over many years of abuse, the same CSS would find it profitable to reenter. This sort of lingering effect is particularly true for digital markets, where the market can tip to the advantage of the dominant firm, and network effects and economies of scale can make it difficult (or impossible) for the excluded firms to recover their position.

These dynamics matter for damage assessment. The harm may not be confined to the period of the abuse; it may continue through lost future profits, missed investment, or delayed innovation. This requires analysts to model market evolution over time, including tipping points, lock-in, or other feedback effects. While this adds complexity, it is essential to capture the true economic impact of exclusion.

19. For example, in *Albion Water v Dŵr Cymru*, the CAT found that Albion did not have the resources to devote to pursuing new business opportunities because of the drain imposed by the battle with Dŵr Cymru's abusive conduct. *Albion Water Limited v Dŵr Cymru Cyfyngedig* [2013] CAT 16—31/07/13. Case no: 1166/5/7/10, paras. 202–203.

20. Para. 595, and footnote 713 in Commission Decision of 27 June 2017 in Case AT.39740—Google Search (Shopping).

III. Theoretical Framework (Theory of Harm)

Exclusionary abuses come in many forms. A dominant firm may undercut a rival through predatory pricing, deny access to an essential input, make access conditional on exclusivity, or degrade interoperability. The common element is that the abuse impairs rivals' ability to compete on the merits and thereby harms competition. In many cases, this translates into harm to rivals, consumers, or both. It should be noted that the activities described in this section are generally not *per se* illegal (unlike, e.g., price-fixing through a cartel). Effects-based analysis is necessary to show that they are capable of restricting competition.²¹

The theory of harm—that is, the mechanism by which exclusion causes anticompetitive effects—is central to both liability and damages. It determines who is harmed, how they are harmed, and what counterfactual should be used to estimate that harm. In follow-on damage claims, a previous administrative decision has often already established a theory of harm.²² But even in these cases, the theory of harm may not be explicitly defined in the decision.

In this section, we distinguish between vertical and horizontal foreclosure and outline how these map to different theories of harm and potential claimants. We then discuss the dynamics of exclusionary abuse and who may be harmed by different types of exclusionary behavior.

A. Vertical Foreclosure

In the analysis of foreclosure, the economic theory literature typically requires two conditions: (1) that a firm had the ability to engage in a given conduct and (2) that a firm had the incentive to do so. Although these are not formal legal tests, they are useful for the economist to establish whether a claim that a behavior had the intention of foreclosure makes economic sense.

Vertical foreclosure refers to a conduct where a dominant firm with an essential input, or bottleneck good, makes access to this input difficult (or impossible) for its rivals downstream. Vertical foreclosure involves an upstream dominant firm and downstream competing firms, one of which is vertically integrated with the dominant upstream firm.²³ Understanding which theory is relevant in an exclusionary abuse damage claim helps determine what a credible counterfactual would be. The vertical foreclosure story fits many of the recent exclusionary abuse cases and applies to some of the new types of abuse.

Figure 2 shows a simple example of foreclosure, where D_1 and U_1 are vertically integrated firms downstream and upstream. The U_1 is dominant in the upstream market and provides some vital input (or bottleneck good) to both D_1 and D_2 downstream.²⁴

To illustrate the figure through an example, in Google Shopping,²⁵ the European Commission defined the abusive conduct as the more favorable positioning and display by Google in its general search results pages of its own comparison shopping service, compared to competing CSS. It found that this could reduce innovation and increase prices for consumers. To use the notation in Figure 2, the Commission argued that Google (U_1) was dominant in the upstream (search platform) market and leveraged this dominance in the downstream market of CSS, by favoring its own vertically integrated CSS provider (D_1) against actual or potential rival CSS providers (D_2 and D_3). The theory of harm in this case would

21. For instance, the ECJ clarified in the Intel and Qualcomm cases that loyalty rebates are not *per se* prohibited. Case C-413/14 P Intel v Commission, ECLI:EU:C:2017:632, and Case T-235/18 Qualcomm v Commission, ECLI:EU:T:2022:358.

22. In these cases, courts are likely to presume that the abusive behaviour had some effect, and may not be willing to accept arguments that a theory of harm does not apply, or that any negative effect on claimants was not significant.

23. Fumagalli et al. summarize a range of reasons why such behaviour could be profitable for the dominant firm. CHIARA FUMAGALLI, et al. EXCLUSIONARY PRACTICES: THE ECONOMICS OF MONOPOLISATION AND ABUSE OF DOMINANCE (Cambridge University Press 2018).

24. An alternative form of vertical foreclosure relates to markets where the dominant firm also competes at the upstream level, and downstream firms are made to abstain from buying their input from the dominant firm's upstream rival. See, for example, Janusz A. Ordover et al. *Equilibrium Vertical Foreclosure*, 80 AM. ECON. REV. 127–42 (1990).

25. European Commission Decision of 27 June 2017, case COMP/AT.39740 Google Search (Shopping) paras. 2, and 593.

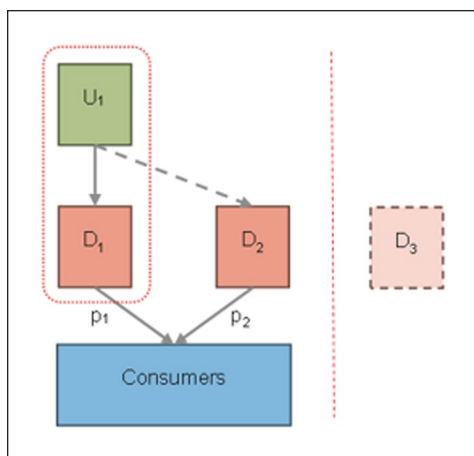


Figure 2. Vertical foreclosure.

be the foreclosure of rival CSS firms (i.e., the elimination of D_2 as a direct competitor). Motta posits that Google had the incentive to engage in the foreclosure because it did not charge rival CSS firms for being listed in search results (i.e., Google would not lose profit by eliminating these downstream rivals) and could increase its profit by excluding downstream competitors.²⁶ A threat of disintermediation of Google Search if consumers switched to rival CSS firms in the future could have been another incentive to foreclose. Moreover, Google's conduct could have also kept D_3 from being able to enter.

Vertical foreclosure can take several different forms, including:

1. Self-preferencing (as in the Google Shopping case above). This refers to the preferential treatment in ranking on a platform, whether through legal, commercial, or technical means, in favor of products or services that the dominant firm offers itself or through a business user which it controls.²⁷
2. Refusal to deal. In these cases, a dominant firm may abuse its position by refusing to supply an input, service, or facility that is essential for rivals to operate. In some cases, the abuse lies in an outright refusal; in others, the firm supplies on discriminatory or unreasonable terms. Prominent cases include *Bronner* (where the dominant firm was ultimately found not to have abused its position)²⁸ and *Microsoft* (where Microsoft's refusal to provide interoperability information was found to be abusive).²⁹
3. Margin squeeze. A margin squeeze arises when a vertically integrated dominant firm sets its upstream (input) prices and downstream (retail) prices in such a way that rivals operating only in the downstream market cannot compete profitably. The abuse lies not in excessive wholesale prices or predatory retail prices in isolation, but in the insufficient margin between them. Prominent cases include *Albion Water v Dwr Cymru*³⁰ and *TeliaSonera*.³¹ The literature typically mentions two examples of margin squeeze, with important differences for identifying the right outcome measure for quantifying damages:

26. Massimo Motta, *Self-Preferencing and Foreclosure in Digital Markets: Theories of Harm for Abuse Cases*, 90 INT. J. IND. ORGAN. 102974 (2023).

27. Regulation 2022/1925 on contestable and fair markets in the digital sector (Digital Markets Act or DMA), recital 52.

28. Case C-7/97, *Oscar Bronner GmbH & Co. KG v Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG and Others*, [1998] ECR I-7791.

29. Case T-201/04, *Microsoft Corp. v Commission of the European Communities*, ECLI:EU:T:2007:289.

30. [2006] CAT 23, *Albion Water Ltd v Water Services Regulation Authority* (formerly Director General of Water Services) and *Dŵr Cymru Cyfyngedig*.

31. Case C-52/09, *Konkurrensverket v TeliaSonera Sverige AB*, ECLI:EU:C:2011:83.

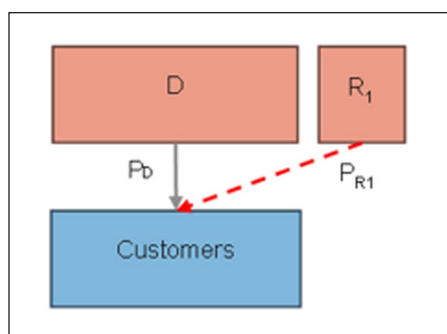


Figure 3. An example of horizontal foreclosure (loyalty rebates).

- (1) The dominant upstream firm (U_1) increases the price of the bottleneck input that D_2 buys from U_1 to increase D_2 's costs and make it less competitive in the downstream market. For quantifying harm, the focus should be on the claimant's input costs.
- (2) The dominant upstream firm (U_1) squeezes the margin of D_2 by reducing the prices charged to D_1 . Consequently, if D_2 wants to compete with D_1 , it has to lower its prices. As this abuse affects the price that the claimant (D_2) can charge, the focus for quantifying harm should be on this price.

B. Horizontal Foreclosure³²

When the bottleneck good is not an input as described above but is sold directly to final users, horizontal foreclosure may arise from the behavior of the dominant firm selling this good. Horizontal foreclosure can occur through exclusive dealing or rebates. The dominant firm induces or requires customers to purchase only (or mainly) from it, through contract terms, discounts, or rebates. In the long-running European Commission case against Intel, Intel was found to have made payments to some customers conditional on their postponing or cancelling the launch of products based on AMD-produced CPUs, reducing the effective price that customers would face if they did not use rival CPUs.³³ In *Tomra v. Commission*, long-term exclusive contracts were found to have foreclosed competitors in commercial refrigeration.³⁴

Figure 3 shows a stylized depiction of the relationship between firms in a loyalty rebate case. Using the Intel case as an example, Intel, a dominant firm in the supply of CPUs (shown as D in Figure 3), was found to have paid computer manufacturers (Customers in Figure 3) to halt or delay the launch of specific products containing competitors' (R_1 in Figure 3) x86 CPUs and to limit the sales channels available to these products.³⁵ The foreclosure effect comes from the ability of the dominant firm (D) to exploit its dominance to exclude a rival (R_1) from the market by offering discounts (or rebates) on all units of a single product, conditioned upon the level of purchases.

Bundling or tying of products can also be used to achieve horizontal foreclosure. These involve conditioning the purchase of one product on the purchase of another, often via commercial or technical design. Figure 4 illustrates this case, where D is a firm dominant in the market for Product A, and also sells Product B, in which market it faces competition from R_1 . For example, in the Microsoft case, Microsoft bundled its product (Windows) in the market for desktop operating systems (Product A) with Windows Media Player (Product B).³⁶ The European Commission concluded that this meant that

32. Rey and Tirole make this useful distinction between vertical and horizontal foreclosure. Patrick Rey & Jean Tirole, *A Primer on Foreclosure*, in *HANDBOOK OF INDUSTRIAL ORGANIZATION*, Vol 3 (M. Armstrong & R. Porter, 2007, North Holland), 2145–220.

33. Case C-413/14 P *Intel v Commission*, ECLI:EU:C:2017:632.

34. *Tomra Systems ASA and Others v. Commission* (Case T-155/06), EU:T:2010:370.

35. Case AT.37990—INTEL.

36. Case T-201/04, *Microsoft Corp. v Commission of the European Communities*, Judgment of the Court of First Instance (Grand Chamber) of 17 September 2007.

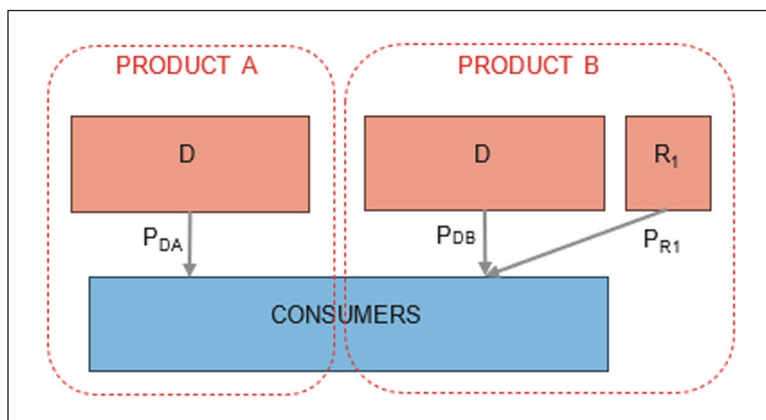


Figure 4. Loyalty rebates with bundling.

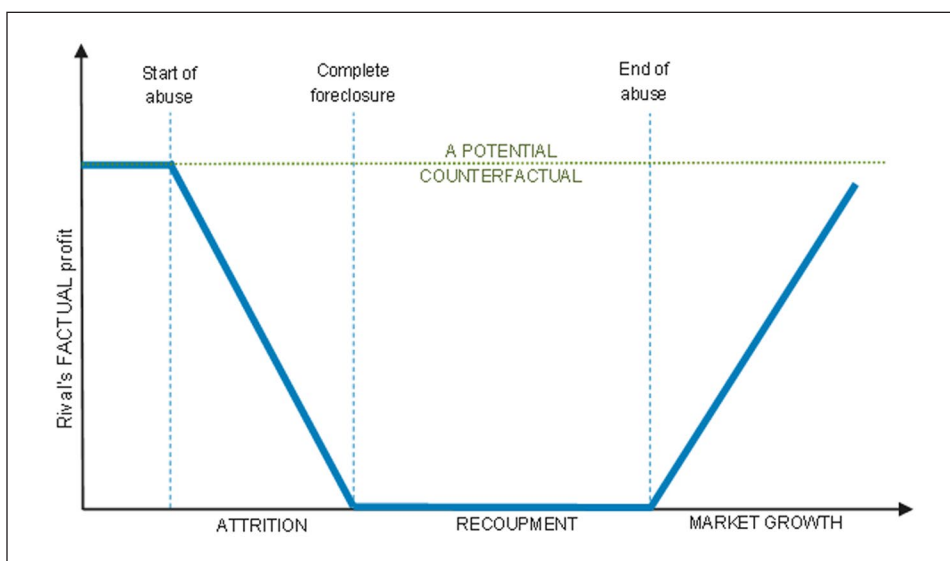


Figure 5. The dynamics of exclusionary abuse.

customers who would buy Windows in any case faced an effective price of zero for Windows Media Player, and rival media player suppliers were unable to compete. More recently, the European Commission found that Google's tying of its search and browser apps to Android devices restricted competition and entrenched its dominant position.³⁷

C. The Dynamics of Exclusionary Abuse

The literature typically distinguishes between three stages of *horizontal foreclosure*: attrition, recoupment, and market growth.³⁸ Figure 5 depicts this process. The real-life dynamics of exclusionary abuse are unlikely to be so clearly timed, but the example below is useful for expositional purposes. When the

37. Commission Decision of 18 July 2018, Case AT.40099—Google Android, especially paras. 752–800.

38. Chiara Fumagalli et al. *Damages for Exclusionary Practices: A Primer*, in F. Etro and I. Kokkoris, eds., *COMPETITION LAW AND THE ENFORCEMENT OF ARTICLE 102* (Oxford University Press 2010), 203–20.

exclusionary abuse starts, the claimant begins to lose business to the dominant firm (attrition phase), for example, because the dominant firm's margin squeeze forces the claimant to increase its prices. This leads to a reduction of profit for these foreclosed rivals. At the extreme, the rivals no longer break even and end up leaving the market. During the recoupment phase, the defendant can increase its prices to recoup its losses from the attrition phase, because its rivals have been successfully excluded from the market. This is likely to attract (re)entry, unless there are entry barriers. Without entry barriers, the defendant must revert to the exclusionary conduct, potentially at the cost of lowering its profit or even losing money. When the abusive conduct ends (e.g., because of an investigation by a competition authority), rival firms can start entering (or reentering) the market (market growth phase). It is important to consider the sum of all profits lost during all stages of the process described in Figure 5.

From the customers' perspective, during the attrition phase, customers can experience a (temporary) fall in prices, followed by a price increase in the recoupment phase. During this recoupment phase, customers can also be hit by a reduction in choice (due to the exit or the nonentry of rivals or potential rivals). The total impact on consumers should therefore include the net impact from falling prices during attrition and increasing prices (and potentially reduced choice) during recoupment.

The dynamics of *vertical foreclosure* depend on the type of foreclosure under consideration. In the case of refusal to supply, the foreclosure happens immediately, and it is not associated with a temporary drop in prices. On the other hand, margin squeeze is only profitable in a dynamic setting, where the dominant firm can recoup early losses from implementing the exclusion by charging a higher price once competition is softened at the downstream level (Fumigalli et al., 2018). This is similar to the scenario described in Figure 2. In this case, the level of price reduction that customers enjoy depends on the exclusion strategy of the dominant firm. From the customers' perspective, this is again traded off against the costs of higher prices during the recoupment phase.

IV. The Counterfactual

In competition damages claims, establishing loss requires an assessment of what would have happened in the absence of the infringement. This is often referred to as the "counterfactual" or "but-for" outcome.

In cartels or exploitative abuses, the focus is typically on the price that would have been charged without the infringement. The answer may be informed by comparator markets, pre- or postinfringement periods, or regression-based benchmarks. In exclusionary abuse cases, the counterfactual is often more complex. It may involve asking what position the claimant—typically a rival, entrant, or platform user—would have been in if the dominant firm had not engaged in the abusive conduct. This may in turn require an assessment of how the market would have evolved, whether the claimant would have grown, what scale it could have achieved, and how competition would have unfolded. The counterfactual may involve entire market trajectories, not just price levels. Put differently, the counterfactual in an exclusionary abuse case is not trivial to establish as it can be either (1) but-for other things equal (i.e., without the conduct) or (2) but-for other things not equal (i.e., without the conduct but accounting for reasonable alternatives to the status quo). To give an example, if the exclusionary abuse concerns retroactive rebates, possible counterfactuals can be: (1) an outcome with no rebates, (2) an outcome with no retroactive rebates but profit-maximizing incremental rebates, or (3) an outcome with lower retroactive rebates.

Difficulties may remain even in follow-on actions because the competition authority does not always establish clearly what would have happened in the absence of the infringing conduct. The General Court clarified that for the purpose of demonstrating an infringement of Article 102, the Commission cannot be required to establish a counterfactual scenario.³⁹ As such, even in follow-on damage claims, the claimant has to establish the counterfactual used to calculate the magnitude of harm.

Moreover, with exclusionary abuse, one also has to decide how far to trace back the chain of causality. For example, suppose that a dominant firm has developed a new product that has benefitted

39. Google and Alphabet v Commission, T-612/17, para. 378.

competition. But then the same firm also engages in an exclusionary practice, for example, to avoid sharing its innovation with rivals or to recoup its investment. Is it reasonable to assume that the but-for outcome without the infringement would have included the product developed by the dominant firm? Or should we assume that without the prospect of recoupment, the dominant firm would not have developed the product in the first place (or would have developed a different product).⁴⁰

In practice, constructing a counterfactual in an exclusionary abuse case may involve some or all of the following:

- *Market reconstruction*: what would the structure of the market have been without the abuse? Would there have been more rivals, more choice, or different pricing dynamics?
- *Claimant trajectory*: what would the claimant have done? Would it have grown in scale, entered new markets, or developed new products?
- *Strategic response*: would the dominant firm have responded differently in a competitive environment?
- *Consumer or user outcomes*: would end-users have experienced different quality, price, or innovation levels?

Determining the counterfactual in exclusionary abuse cases is, therefore, conceptually more demanding than estimating an overcharge. But it is not qualitatively different from other forms of commercial assessment involving strategic interactions and contingent outcomes. Analysts routinely construct such counterfactuals in other contexts: business valuation, investment forecasting, scenario analysis, and merger simulation, among others. In the context of damages claims, courts are not asked to predict the future with certainty but to assess what would likely have happened had the abuse not occurred. This is a matter of evidence, inference, and structured reasoning. For example, in *Albion Water*, the Competition Appeal Tribunal accepted that the counterfactual required some assumptions but found that there was a substantial chance that, but for Dŵr Cymru's abusive behavior, Albion would have entered into a potentially lucrative bulk supply agreement with a buyer.⁴¹

At the same time, courts have rejected counterfactuals that are speculative, inconsistent, or unsupported by evidence. In *Streetmap v Google*, the High Court found that the claimant's counterfactual did not align with consumer behavior and market conditions and therefore could not support a finding of causation.⁴² In *Enron Coal*, the claimant asserted that in the absence of the defendant's exclusionary conduct, Enron would have had a good chance of winning a contract to provide haulage services to Edison Mission Energy.⁴³ The Competition Appeal Tribunal (CAT) found that this assertion was not supported by the available documents and witness statements and therefore dismissed Enron's claim.

Counterfactuals should therefore be constructed carefully, transparently, and consistently with the theory of harm. They should reflect a plausible evolution of the market and the claimant's position within it, supported by data, expert analysis, and commercial context.

A. Establishing the Counterfactual Outcome

The counterfactual in exclusionary abuse cases can include a range of alternative outcomes, where not only the behavior of the defendant and the claimant but also the possible behavior of third-party market actors also matters. This raises questions such as whether, in the counterfactual, third parties should be assumed to abide by the law or whether the market would be distorted by other anticompetitive conduct in the absence of the defendant's behavior. This can be particularly difficult as disclosure normally does

40. See P. Ibáñez Colomo, *Anticompetitive Effects in EU Competition Law*, 17 J. COMPETITION L. & ECON. 309–63 (2021).

41. *Albion Water Ltd v. Dŵr Cymru Cyfyngedig* [2013] CAT 6, paras. 205–17.

42. *Streetmap.EU Ltd v. Google Inc.* [2016] EWHC 253 (Ch), paras. 99–141.

43. *Enron Coal v. English Welsh & Scottish Railway Ltd* [2009] CAT 36, para. 92.

not cover third parties. Courts, therefore, have to analyze all *available* contemporary documents and witness evidence, without discarding information that would have mattered for a firm's behavior.⁴⁴

Although the correct counterfactual analysis differs in every case, we identified three general principles for establishing the counterfactual, based on case law from the U.K. and EU courts.

- (1) First, the counterfactual in exclusionary abuse cases is not an ideal, competitive outcome, but the outcome that would have prevailed in the absence of the abuse.⁴⁵
- (2) Second, the counterfactual has to be about how firms would have behaved, and not how an economically rational decision-maker would have behaved.⁴⁶
- (3) Third, the counterfactual has to exclude the entirety of the abusive conduct.⁴⁷

In considering different possible counterfactuals, it is often helpful to distinguish between two levels of counterfactual:

- (1) *A constant market structure counterfactual*, which removes the abuse but holds other relevant features constant. The underlying market structure—such as the number and identity of firms, barriers to entry, and buyer characteristics—remains unchanged. This approach isolates the effects of the abusive behavior itself, holding constant the structural features of the market.
- (2) *A changing market structure counterfactual*, in which the abusive conduct is removed and, as a consequence, the market structure is also allowed to evolve differently—for example, with new entry, expansion by rivals, or increased buyer power. This approach captures both the direct and dynamic effects of the abuse, including its impact on market structure and long-term competitive conditions.

1. Constant Market Structure Counterfactual. In many cases, the natural starting point is a counterfactual in which the overall market structure is the same, but the dominant firm behaves lawfully—that is, in a way that would not be found abusive under Article 102 TFEU or Chapter II of the Competition Act 1998. This might involve supplying access on reasonable terms, charging prices above (some measure of) costs, refraining from exclusive dealing or tying, or avoiding technical degradation or discrimination.

This approach is consistent with the logic of competition law. The purpose of exclusionary abuse rules is not to prevent firms from being dominant, nor to prohibit vigorous competition, but to ensure that dominance is not used to distort competition through unlawful means. In the appropriate comparator, therefore, the dominant firm remains dominant while competing on the merits.

This principle was endorsed in *Post Danmark*, where the Court of Justice of the European Union (CJEU) emphasized that the relevant question is whether the conduct has the potential to restrict competition and harm consumers, even where prices are low. The abuse lies in the way dominance is exercised, not in the fact of dominance itself.⁴⁸ A similar point was made in *2 Travel*, where the CAT constructed a counterfactual in which Cardiff Bus competed lawfully, without predation, and assessed what revenues and profits 2 Travel would have earned in those circumstances. The Tribunal rejected

44. Dame Vivien Rose, *Predicting the Past. Constructing the Counterfactual in Antitrust Damage Claims* (Conference on the Pros and Cons of Counterfactuals, Swedish Konkurrensverket, Stockholm, 6 December 2013).

45. 1433/7/7/22 Gormsen v Meta, CAT, 20 Feb 2023 Judgment (CPO Application), para. 53.; Case 56/65, Société La Technique Minière v. Maschinenbau Ulm GmbH, [1966] ECR 235.

46. Enron Coal Services v. EWS Railway [2009] CAT 36, para. 205.

47. In para. 38 of 2 Travel Group PLC (in liquidation) v Cardiff City Transport Services Limited, the CAT states that, “the relevant counter-factual scenario is the one where the Cardiff Bus White Service did not launch and operate at all its competing bus service, rather than the case where the service did operate, albeit in a different way (e.g., with higher fares or to a different timetable).”

48. Post Danmark A/S v. Konkurrenserådet (Case C 209/10), EU:C:2012:172, paras. 26–29.

arguments that 2 Travel would have failed anyway and focused instead on whether the abuse materially worsened its position.⁴⁹

This may raise questions about what conduct would have occurred in the absence of the abuse. For example, if the abuse consisted of denying access to an input, what terms would have been offered instead? If predatory pricing is removed, what is the appropriate price level? These questions are not always easy to answer, but they are amenable to structured analysis, based on cost benchmarks, historical practice, comparator markets, or expert modelling.

2. Changing Market Structure Counterfactual. In some cases, the claimant may propose a counterfactual in which the market structure is fundamentally different in the absence of the abuse. For instance, there may be a wider range of competitors or a different range of products available. Indeed, the dominant firm may not be dominant in the counterfactual—for example, because the barriers to entry or expansion that underpinned its dominance would not have existed. This may be relevant where the abuse itself contributed to the creation or maintenance of dominance—for example, by tying products, engaging in self-preferencing, or erecting technical or contractual barriers to entry.

These counterfactuals are more complex and potentially more contentious. They may involve questioning not just the conduct of the dominant firm, but the structural features of the market. For example:

- Would a rival have emerged if not for the tying and default setting by the dominant firm?
- Would a competing platform have grown if access conditions had not deterred users or developers?
- Would the claimant have entered or expanded but for network effects that were artificially reinforced?

Answering such questions may require addressing deeper questions about the origin of dominance and the ways in which exclusionary abuse may entrench it. For instance, information on scale economies (due to fixed costs, learning effects, or network effects) can be important in determining how market structure would change in a nonabusive counterfactual. A dominant firm might be prepared to carry out exclusionary abuses of potential rivals even if there is only a small probability that the rivals would be successful, if doing so avoids the possibility of a “tipping point” at which its position could come under serious threat. Data on the relative power of the dominant firm can indicate the strength of incumbency advantage and provide support for a counterfactual that includes rivals and potential entrants in the market. A disintegrated downstream market (with many small customers) also increases the profitability of foreclosure and would indicate that, in the counterfactual, these higher rents are not appropriated by the dominant firm.

Such counterfactuals can raise evidentiary challenges: courts may be reluctant to accept counterfactuals that rely on speculative reconstructions of market dynamics or entrant behavior. But they may be appropriate where the abuse itself created the conditions of dominance. In *Google Shopping*, for example, the Commission found that self-preferencing in search results had helped Google entrench its dominance in CSS. A counterfactual in which that conduct did not occur—and in which rivals were given equal visibility—may imply a different market structure over time.⁵⁰ In the counterfactual, we might expect that rival CSSs would have competed with Google’s CSS, which is central to a claim by rivals. The Commission’s theory of harm also suggests that prices (merchant fees) would have been lower as a result of increased competition—potentially supporting a claim by downstream customers.

49. 2 Travel Group PLC (in liquidation) v Cardiff City Transport Services Ltd [2012] CAT 19, especially paras. 398–403.

50. Commission Decision of 27 June 2017 in Case AT.39740—Google Search (Shopping), especially paras. 591–613.

B. Useful Indicators for the Counterfactual

Supply- and demand-side characteristics of the market are key to establishing the right counterfactual. For example, when assessing whether the abuse raised barriers to entry, two conditions need to be fulfilled. First, that the potential entrant had a real chance of entering the market, and second, that it was the abuse that stopped it from entering. If the answer to these two questions is yes, then the counterfactual should include the entrant.

Characteristics of the demand side of the market also influence what the right counterfactual should be, for example, if these affect the level of demand the claimant would face in the counterfactual:

- (1) Single- or multihoming consumers: whether consumers (and suppliers) are single- or multihoming can affect the claimant's demand. For instance, if consumers in a market tend to single-home, a rival claimant could have been expected to keep its own single-homing consumers had the abuse not excluded them from the market.⁵¹
- (2) Demand from significant buyers: if the largest buyers are tied into long-term contracts or if switching for these buyers is particularly difficult, it could make it difficult for the claimant to gain business from these buyers even in the counterfactual scenario.
- (3) Product differentiation: if consumer tastes are heterogeneous, a potential new entrant, offering a differentiated product, could gain customers from the incumbent. The level of product differentiation and evidence on consumer tastes (e.g., given by consumer surveys) could help quantify how much demand the claimant would enjoy in the counterfactual. For example, economic theory predicts that the impact of exclusionary conduct on a potential claimant is larger where the claimant is less differentiated from the dominant incumbent firm.⁵²

The Qualcomm case gives a useful example to illustrate some of the details of finding the right counterfactual in exclusionary abuse cases, and the importance of showing that rivals would have remained in or entered the market in the absence of the infringement. Having dismissed the European Commission's decision,⁵³ in its judgment,⁵⁴ the General Court found that without Qualcomm, there would not have been any credible and equally efficient competitors who could have satisfied Apple's quality and technical requirements and that the Commission failed to take into account this important evidence of lack of entry.⁵⁵ Deutscher, however, argues that the General Court's counterfactual analysis fails to consider that the lack of entry could have been caused by both high entry barriers and Qualcomm's exclusionary conduct.⁵⁶ Deutscher claims that a better understanding of the theory of harm would have revealed that Qualcomm's behavior was at least a contributor to entry barriers against potential competitors.⁵⁷

The Court also confirmed in its Qualcomm decision the importance of the efficient competitor test,⁵⁸ which has long been seen as a condition of the competition authority establishing whether there was foreclosure. Understanding the theory of harm can help determine if the claimant was an as-efficient firm, which in turn would inform the counterfactual. For example, if the theory of harm is that of horizontal foreclosure, the theory shows that if the dominant firm enjoys scale and scope economies and an

51. 1298/5/7/18 Achilles Information Limited v Network Rail Infrastructure Limited—11 Feb 2022 Judgment (Damages), para. 151(2).

52. For a discussion of this effect in the context of margin squeeze, see: Bruno Jullien et al. *The Economics of Margin Squeeze*, CEPR Discussion Papers 9905 (2014).

53. Case AT.40220. Qualcomm (Exclusivity payments).

54. Case T-235/18 Qualcomm v Commission.

55. *Ibid.*, paras. 412–14.

56. Elias Deutscher, *Causation and Counterfactual Analysis in Abuse of Dominance Cases—Lessons from the General Court's Qualcomm Ruling*, 19 EUR. COMPET. J. 481–521 (2023).

57. *Ibid.*, 519.

58. Case T-235/18 Qualcomm v Commission, paras 349–54.

incumbency advantage, it can exclude as-efficient (and even more efficient) rivals.⁵⁹ Evidence on such a scale and incumbency advantages can be used to support a claim.

Claims by (downstream) customers in an exclusionary abuse case raise different challenges. These claims are contingent on the abuse successfully excluding competition upstream and thereby increasing market prices. The counterfactual in this case is the price that would have been charged had there been no exclusion. During the attrition phase, prices are often lower (e.g., through rebates or predatory pricing), which benefits customers. Prices then increase when rivals are successfully excluded, and then (potentially) fall again if a new entry happens. Any damage claim must relate to the net amount of damage across all stages. Moreover, price is not necessarily the only relevant factor for customer claimants in the counterfactual. It is possible that without the exclusionary practice and with a more competitive upstream market, customers would have received better quality, which therefore can also be part of the claim.

C. From Remedy to Counterfactual

In follow-on claims, the competition authority might have already approved a remedy to eliminate the competition problem. If the objective of the remedy is to restore the market to what it would have been without the abuse (while complying with the principles of effectiveness and proportionality), then the outcome created by the remedy (or the outcome that the remedy aims at) could be thought of as a counterfactual.⁶⁰

For example, in the Amazon Buy Box case, both the EC and the CMA agreed to commitments by Amazon to ensure nondiscriminatory ranking in the Buy Box. One could therefore argue that in the counterfactual, the Buy Box ranking would have been nondiscriminatory, and the claimants would have received business according to this nondiscriminatory ranking. Such a counterfactual would be consistent with the Digital Markets Act (DMA), which stipulates that in product ranking, gatekeepers shall apply transparent, fair, and nondiscriminatory conditions to such ranking.⁶¹

In *Hammond v Amazon*, the claim alleged that Amazon was self-preferencing in the ranking of items in its Buy Box, which harmed suppliers that were excluded or marginalized as a result of this self-preferencing abuse. In its carriage dispute ruling of the case, the Competition Appeal Tribunal included a short discussion of the counterfactual.⁶² The proposed class representative suggested establishing the counterfactual based on a rerun of Amazon's original algorithm without the abuse to create a nondiscriminatory ranking and to log the resulting outcome as the counterfactual.⁶³ The CAT seemed sympathetic to this solution. Such counterfactuals, however, pose some issues that would have to be carefully considered.⁶⁴

D. Lost Profit and Opportunities

It is possible that a rival's business did not expand as it would have in the absence of the abuse. Courts have been clear that claimants must be able to seek compensation for all losses suffered, which follows from the right of any individual to seek compensation not only for actual loss but also for loss of profit (*lucrum cessans*) or lost opportunities plus interest.⁶⁵

59. See Chapter 1 in FUMAGALLI et al. *EXCLUSIONARY PRACTICES*.

60. See, for example, Buccicrossi, *Quantification of Damages in Exclusionary Practice Cases*.

61. Article 6(5), DMA.

62. *Hunter & Hammond (1568 & 1595)—Judgment (Carriage)* | 5 Feb 2024.

63. *Ibid.* para. 20.

64. See, for example, Peter Ormosi, *Damage Quantification in Algorithmic Abuse Cases—the Elusive Counterfactual* (2024), <https://competitionpolicy.wordpress.com/2024/02/21/damage-quantification-in-algorithmic-abuse-cases-the-elusive-counterfactual/>.

65. Article 3, Damages Directive. See also C-295–298/04, *Manfredi*, para. 95–96, and Joined Cases C-46/93 and C-48/93 *Brasserie du Pêcheur and Factortame* [1996] ECR I-1029 para. 87.

The counterfactual and outcome in these cases are often more uncertain. For example, claims for lost profit and opportunities were made in 2 Travel,⁶⁶ where 2 Travel claimed that as a result of the abuse, it had to mortgage and divest itself of its interest in the Swansea Depot. In the counterfactual, the company would have held, unencumbered save for the bank's first charge, property that was extremely valuable.⁶⁷ The CAT rejected 2 Travel's claim and explained that 2 Travel would have had to divest this land even in the absence of the infringement.

To give an example with the opposite outcome, the Versailles Court of Appeal awarded compensation for the claimant, Verimedia, for the lost opportunity to penetrate the market of media expertise more quickly, which was caused by the defendant's (Mediametrie) delaying the supply of information necessary for this service.⁶⁸ The court held that the claim for loss of business was sufficiently proven in the French Competition Council's original decision establishing the infringement.

Where a claim includes a foregone opportunity, this should be reflected in the counterfactual. Because lost profit opportunities are more hypothetical than actual loss, it is likely that only those opportunities are considered that had been expected and could be demonstrated as probable ex-ante. But the counterfactual can be particularly difficult to establish in cases where the claimant's business was just starting to develop when the exclusionary abuse affected them. In such cases, there is no data available from before the abuse to indicate the level of profit, or the growth the claimant would have experienced in the absence of the abuse.

V. Estimating the Magnitude of Harm from the Exclusion

The previous sections showed that without establishing the theory of harm, one cannot establish the counterfactual. And without the counterfactual, one cannot identify the affected commerce. In any given exclusionary case, there can be several possible counterfactuals, all implying a different level of affected commerce, which in turn also depends on whether the claimant is a rival, a customer, or a supplier of the defendant. In this section, we discuss in more detail how to calculate the affected commerce using different methods.

When discussing the quantification of harm, and in line with the legal principle of effectiveness, the EC Damages Directive stipulates that the quantification of loss should not render the exercise of the right to damages *practically impossible or excessively difficult*.⁶⁹ This is particularly relevant in the case of claims for damages caused by exclusionary abuse, where the quantification of harm can be a more complex exercise.

In practice, this means finding something observable, which matches the characteristics of this theoretical counterfactual (ideally, it is a close match to the factual, and the only difference is the fact of the abuse itself). Outcomes (such as prices and profits) in the factual can then be compared with outcomes in this observed counterfactual.

Where the claimant is a rival, the focus is on the claimant's lost profit. Methodologically, simple comparators are typically used in these cases to quantify the damage. Where the claimant is a customer or supplier, and the claim is related to a price increase as a result of the exclusion of a rival, then the methods are similar to those used in pricing abuses. There is a rich literature on price-related abuses, much of which can be applied to consumer or supplier claims in exclusionary abuse cases.⁷⁰

66. 1178/5/7/11 2 Travel Group Plc v Cardiff City Transport Services Limited, CAT, 5 Jul 2012 Judgment.

67. *Ibid.*, para. 443.

68. Cour d'Appel de Versailles (Versailles Court of Appeal), Verimedia v SA Mediametrie, SA Secodip, GIE Audipub, judgment of June 24th 2004.

69. Article 17(1) of the EC Damages Directive: "*Member States shall ensure that neither the burden nor the standard of proof required for the quantification of harm renders the exercise of the right to damages practically impossible or excessively difficult. Member States shall ensure that the national courts are empowered, in accordance with national procedures, to estimate the amount of harm if it is established that a claimant suffered harm but it is practically impossible or excessively difficult precisely to quantify the harm suffered on the basis of the evidence available.*"

70. For a detailed discussion of these methods, see: Oxera QUANTIFYING ANTITRUST DAMAGES.

A. Lost Profit Models

In most exclusionary abuse cases, the primary measure of harm to a rival is lost profit. The abuse impairs the rival's ability to compete, reducing its revenues, raising its costs, or preventing it from reaching scale and thereby causes it to earn less than it otherwise would have done. The appropriate remedy is to compensate the claimant for the profits it would have earned in the absence of the abuse.

This approach is conceptually straightforward and consistent with general principles of tort and contract damages. The claimant is restored to the position it would have occupied but for the defendant's wrongful act. The challenge lies in estimating what that position would have been and how to quantify the difference between the actual and counterfactual outcomes.

The standard model involves comparing two streams of financial performance over a defined period: what the claimant actually earned, given the abuse (actual) and what the claimant would likely have earned had the abuse not occurred (counterfactual). The difference between these two streams is the gross loss. This must then be adjusted for relevant costs, taxes, risks, and discounting to arrive at a net present value. The resulting figure represents the claimant's economic loss.

The idea of making these comparisons rests on the assumption that the (observed) counterfactual is sufficiently similar to the factual, but for the abuse. This assumption has to be supported by evidence. The better this evidence, the more credible is the claim that the comparison is a valid one, and that the difference between the financial performance in the actual and the counterfactual is indicative of the magnitude of the damage suffered by the claimants. Relevant evidence may include evidence on the demand- and supply-side conditions faced by the defendant and the claimants. For example, expert economists may compare the companies' cost structures in the factual and counterfactual scenarios or examine the characteristics of demand faced by different firms before the abuse.

1. Comparison over Time. In exploitative abuses, it is common to turn to the status quo before or after the abuse as the counterfactual. This assumes that the outcome of interest (e.g., price) would have been the same during the abuse as it was before or after. But this approach to the counterfactual may be less likely to work in exclusionary abuse cases, where the counterfactual not only has to reflect the but-for outcome without the infringement but potentially also the dynamic effects that would have changed the market in the absence of the abuse (e.g., how competition would have evolved in the market without the abuse).

Figure 6 represents a simple hypothetical case, where the dominant firm excludes a rival for a length of time, and when the abuse stops, the rival can reenter the market. The concepts presented in this section apply equally to other types of cases (e.g., where the rival is not able to reenter the market).

Figure 6 depicts the different comparators that each represent a different assumption about the counterfactual. The figure plots the factual sales of the claimant (solid blue line) and the defendant (solid red line) and two potential trajectories for the claimant's sales in the absence of the abuse. The figure also plots sales of a yardstick comparator (comparator market sales), which is a sufficiently similar other firm/market that was unaffected by the abuse.

The first potential comparator (dashed blue line) relies on the assumption that the claimant's sales would have remained the same without the abuse. In this case, the pre-abuse or post-abuse price/profit would be an acceptable comparator. Methodologically, the magnitude of the harm would be estimated by a statistical comparison of prices or profits during the abuse, before the abuse, or after the abuse.

Where markets are highly innovative, or where there are strong network effects, or large-scale and scope economies, the preabuse or postabuse outcome is unlikely to be a good (unbiased) estimator of the during-abuse outcome for the claimant, as these markets change rapidly. On the other hand, pre-abuse or post-abuse outcomes could be more useful in mature, less-innovative markets.

2. Comparison across Markets. Where there is reason to think that the pre-abuse price/profit is not an unbiased estimator of the claimant's price/profit in a but-for world, one can try to find a comparator from other (sufficiently similar) products or geographical markets. Finding a suitable comparator

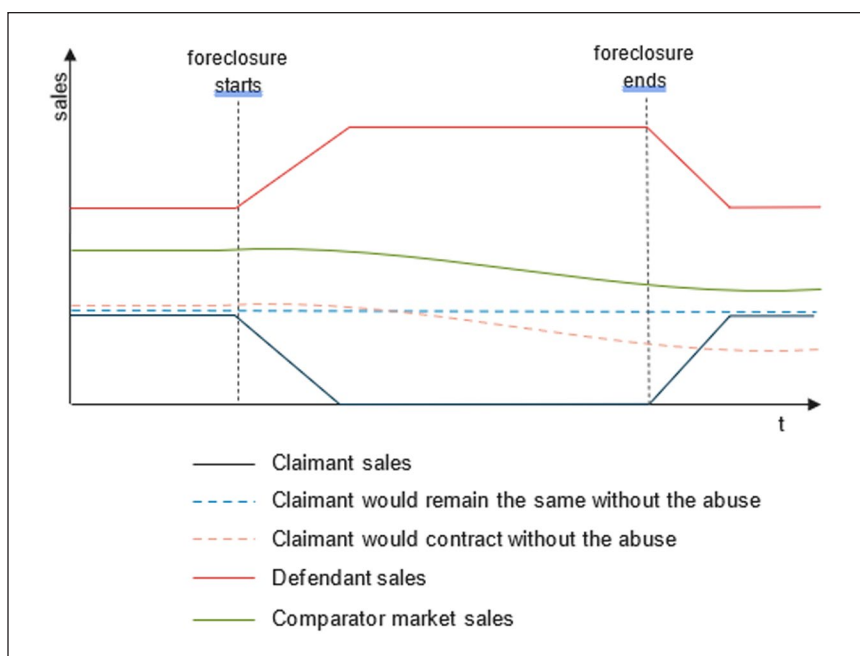


Figure 6. Comparators in exclusionary abuse cases.

market is more likely to be possible in differentiated product markets, where other products are similar enough to be affected by the same demand- and supply-side conditions but are not affected by the abuse itself. An ideal comparator market is illustrated by the green line in Figure 6.

Comparator markets have to be selected based on objective criteria. For example, in *Orange/Digicel*, the French Court of Appeal was satisfied that the claimant selected the comparator markets based on essential demand- and supply-side characteristics, such as (1) the degree of competition and concentration in the markets, (2) cost and demand characteristics, and (3) barriers to entry.⁷¹ In *Conduit*, the Spanish courts accepted the use of the U.K. market as a reference to calculate the lost market share of the claimant in Spain, because of similarities between the telecommunication sectors in the two countries, such as the timing of liberalization, but controlling for differences in relative prices and advertising spending.⁷²

In *Achilles v Network Rail*,⁷³ to establish the counterfactual, Achilles contended that the performance in the Nordic oil and gas sector of its established supplier assurance scheme, when faced with competition from a new entrant, was the best available point of comparison for what would have happened to Achilles in the counterfactual scenario in the GB rail industry. Although there were similarities between the two markets, the CAT judged that the differences in how Achilles operated in the oil and gas sector (such as the fact that in the Nordics, Achilles was the incumbent provider facing a challenge from a new entrant, and that there was no provider equivalent to Network Rail in the Nordics) meant that this was not a reliable counterfactual.

Calculations, including a comparator market/firm, raise an important evidentiary problem. In an exclusionary abuse case, one might be interested in the profitability of such a comparator firm, but this comparator is a third party to the claim. As such, it cannot be required to disclose information, although, in some cases, evidence might be available on the claimants' own sales in those other markets.

71. Cour d'Appel de Paris, *SA Orange et al. contre SA Digicel Antilles Françaises Guyane*, RG 2009016849, 17 June 2020.

72. *Conduit Europe, S.A. v Telefónica de España S.A.U.*, judgment of November 11th 2005, Juzgado de lo Mercantil Madrid (Madrid Commercial Court).

73. 1298/5/7/18 *Achilles Information Limited v Network Rail Infrastructure Limited—Judgment (Damages)*, 11 Feb 2022.

3. Comparison with the Defendant. Another way to calculate the commerce lost by the claimant is to look at the amount of business the defendant gained following the exclusionary abuse. For example, the line showing the defendant's sales on Figure 6 (red line) implies that the defendant's sales increased with the abuse, while the claimant's sales dropped. In this case, we could use the increase in the defendant's sales as an approximation of the sales lost by the claimant. In *2 Travel*, the CAT concluded that the maximum number of passengers 2 Travel could have attracted in the absence of the abuse is the number of passengers that travelled on the Cardiff Bus White Service (the service Cardiff Bus launched to squeeze 2 Travel out of the market).⁷⁴ A similar approach was used in a claim against *Post Danmark* (the case was overturned by the European Court of Justice, but not on the quantification).⁷⁵

An important distinction between compensation and restitution must be made here. Up to this point, the implicit focus of this paper has been on quantifying damages with a compensatory purpose, and the above two examples related to quantifying the damage from the perspective of the defendant's loss. But the claimant's loss is not necessarily the same as the defendant's gain, and there is a possibility of restitutionary damages. In this case, the quantification task turns to quantifying the defendant's gain. Methodologically, this is no different from the approach outlined above: the factual gains of the defendant would be compared to how much the defendant would have gained in the counterfactual.

4. Cost Treatment and Net Profit Estimation. To move from gross revenue loss to net profit loss, the claimant must deduct the costs it would have incurred in generating the counterfactual revenues. This requires careful consideration of variable costs (such as materials, distribution, or customer acquisition—typically deducted in full), fixed costs (such as rent, management salaries, or sunk overheads, which may or may not vary depending on the scale of counterfactual activity), and semifixed or step costs (which change with capacity or output thresholds and may require scenario analysis or incremental costing).

The court will look for consistency in cost treatment. If the claimant argues that revenues would have been higher, it must also reflect any resultant increases in costs. Conversely, if the abuse prevented growth, then some fixed costs may have been spread over larger revenues, improving profit margins in the counterfactual.

Where the abuse caused a permanent loss of scale or reputation, the effect on future cost structure may be material. For example, an excluded rival may have had a lower average cost base if it had achieved minimum efficient scale. This can be modelled, but should typically be justified with operational or industry evidence.⁷⁶

B. Valuation and Multiplier Methods

In some exclusionary abuse cases, the harm suffered by the claimant cannot be fully captured by a stream of lost profits. This may be because the abuse destroyed the viability of the business, undermined its ability to raise funding, or caused it to be sold or liquidated at a depressed value. In such cases, it may be appropriate to quantify harm based on a loss of business value—that is, the difference between what the claimant's business was worth in the factual with what it would have been worth in the counterfactual.

This approach is consistent with principles of commercial law. Where the claimant can show that it lost a valuable asset and that the loss was caused by the defendant's conduct, it is entitled to recover the value of that loss. The key requirement is that the valuation must be tied to the abuse and must reflect a plausible counterfactual. It is not enough to say that the business might have been worth more; the claimant must show that, absent the abuse, the business would have had greater value—and that the abuse was a material cause of the difference.

74. Para. 352, *2 Travel* case.

75. *Forbruger-Kontakt a-s (Søndagsavisen a-s) v. Post Danmark A/S*, judgment of May 20th 2009.

76. See OECD, *Quantification of Harm to Competition by National Courts and Competition Agencies on Treatment of Fixed and Variable Costs in Counterfactual Modelling*, Series Roundtables on Competition Policy N° 132 (2012).

Valuation methods can also be used to cross-check lost profit models or to frame settlement negotiations. A claimant that has ceased trading may find it more natural to quantify the entire value lost than to model hypothetical profits year by year. Equally, in some cases, the abuse may not have reduced revenue or profit directly but may have affected investor confidence, strategic options, or the ability to exit at a favorable valuation.

Valuation methods are most appropriate where the abuse caused the destruction of the business (e.g., foreclosure led to insolvency, fire sale, or collapse in funding), where there was a loss of investor value (e.g., abuse undermined a planned acquisition, listing, or capital raise), and/or where there was structural impairment (e.g., the claimant was unable to enter or grow in a valuable market).

These cases differ from standard lost profit claims. The claimant is not saying “I would have earned more” but “my business would have been worth more.” The focus is on long-run value rather than short-run cash flow. This can better reflect the strategic harm caused by exclusion, especially where scale, brand, or innovation potential was lost. But the evidentiary burden is still high. The claimant aims to show:

- That it had a viable business capable of generating the projected value.
- That the abuse was a material cause of the impairment.
- That the valuation method is appropriate to the business and market.

Where these conditions are met, the court may accept a valuation-based claim.

Courts are likely to prefer valuation models that are consistent with the claimant’s actual business plans, fundraising materials, or third-party valuations. Where the model diverges from contemporaneous documents, the expert must explain why (e.g., because the abuse distorted the claimant’s actual trajectory or financing capacity).

The most commonly used valuation techniques include:

- *Discounted cash flow (DCF)*: estimating the present value of future cash flows, adjusted for risk and time. This method requires assumptions about revenue, costs, growth, terminal value, and discount rate.
- *Earnings multiples*: applying a market-derived multiple (e.g., EBITDA, EBIT, and revenue) to the claimant’s actual or projected earnings. The multiple is usually based on comparable transactions or market norms.
- *Market comparables*: valuing the claimant by reference to the valuation of similar businesses in similar markets—either publicly traded or recently acquired.

Each method has advantages and drawbacks. The DCF is more flexible and internally consistent, but it depends heavily on assumptions. Multiples are easier to apply but may be sensitive to market timing and require careful adjustment for differences in size, risk, or sector. Comparables are useful for cross-checking but may be hard to identify, especially for early-stage or niche firms.⁷⁷

C. Scenario-Based and Opportunity Lost Methods

Some exclusionary abuse cases do not lend themselves neatly to either lost profit or business valuation approaches. The abuse may have prevented the claimant from entering a market, launching a new product, raising capital, or pursuing a strategic opportunity. In such cases, the appropriate question is not “how much profit was lost?” or “what was the business worth?” but “what opportunity was foregone—and what value did that opportunity have?”

77. See European Commission, Practical Guide on Quantifying Harm, SWD(2013) 205.

This is particularly relevant for:

- *Early-stage firms* that were excluded before they could establish a revenue stream;
- *Firms denied access* to a key platform, input, or interface;
- *Claimants deterred from entry* or expansion by exclusionary practices;
- *Innovators or developers* whose product could not be commercialized due to a dominant firm's conduct.

In these cases, the court must assess a lost possibility, not a certain revenue stream or a defined business value. This does not mean the claim is speculative. Courts have long awarded damages for loss of a commercial opportunity, provided the chance had value, and the claimant can establish a reasonable probability that it would have been pursued successfully.

One way to approach these cases is through scenario modelling. The expert constructs one or more plausible but-for scenarios—for example:

- A launch and growth path had the product reach the market.
- A market entry trajectory if access had not been denied.
- An investment case had the firm been able to raise capital or demonstrate viability.

Each scenario is assessed for internal coherence, evidentiary support, and relative likelihood. The expert may assign probabilities or present a weighted range of outcomes.

The key requirement is that the opportunity must be real, not hypothetical, and that its loss must be causally linked to the abuse. The expert must explain what the claimant intended or was likely to do, what the abuse prevented, and what the expected value of the opportunity would have been.

Scenario-based methods require careful documentation. The claimant should show that it had a credible business plan, investment intention, or market strategy and that the opportunity lost was more than a speculative idea. Relevant evidence may include internal documents (business plans, board papers, and investor decks), market research or feasibility studies, prior customer or partner interest, third-party valuations or funding offers, testimony from investors, partners, or customers.

Where the claimant can demonstrate that it would likely have pursued a particular course of action and that the abuse prevented it, courts may be prepared to assess the value of the foregone opportunity. This may include a reduced quantum to reflect risk, uncertainty, or lack of track record, but the principle of recovery remains valid.

Competition cases using such methods have been limited to date, but a scenario-based approach may have formed part of Whistl's (settled) damages claim against Royal Mail for an exclusionary abuse of dominance.⁷⁸

D. Indirect Claimant Methods

While most exclusionary abuse claims are brought by rivals or potential entrants, exclusion can also harm consumers, business users, suppliers, or other indirect parties. These groups may have standing to bring claims if they can show that the abuse caused them quantifiable harm. The key challenge is often establishing a causal link between the abuse and the harm suffered by the claimant, especially where the claimant is not a direct market participant but a downstream user, customer, supplier, or third party.

78. Whistl UK Limited v International Distributions Services Plc and Royal Mail Group Limited, 1584/5/7/23 (T). In *Albion Water v Dŵr Cymru*, the CAT found that Albion did not have the resources to devote to pursuing new business opportunities because of the drain imposed by the battle with Dŵr Cymru's abusive conduct. *Albion Water Limited v Dwr Cymru Cyfyngedig* [2013] CAT 16—31/07/13. Case no: 1166/5/7/10, paras. 202–203.

These harms may not take the form of lost profits, but of increased prices, foregone utility, reduced market access, or platform reach. The effects may be indirect—arising from reduced competition or suppressed market dynamics—but they may be significant and durable.

Consumer harm is typically measured using price, quality, or choice metrics. Methods may include:

- *Price effects*: estimating what consumers would have paid in a more competitive market, using comparator markets, historical benchmarks, or econometric models.
- *Quality or innovation suppression*: assessing the value of lost features, slower product development, or reduced service quality—though this is more challenging to quantify.
- *Choice or diversity*: modelling the consumer surplus associated with additional alternatives, using demand estimation or revealed preference techniques.

In class actions or collective claims, these harms may be estimated in aggregate, based on the average harm per user or household, multiplied by the affected population. This approach has been used in cartel follow-on cases and may be applicable to exclusionary abuses where consumers are downstream victims of restricted rivalry. For instance, in *Bulk Mail Claim v. Royal Mail*, the claimants argued that retail purchasers of bulk mail delivery services paid higher prices as a result of Royal Mail's abusive behavior to exclude Whistl from the market.⁷⁹

In digital and platform markets, a common pattern is that exclusion harms business users (such as app developers, sellers, advertisers, or content providers) by restricting their ability to reach customers or operate on fair terms. These claimants are not direct competitors, but their commercial outcomes are affected by the exclusion of rivals or the manipulation of platform rules. For instance, in *Brook v Google*, the claimants argued that Google's exclusionary conduct has pushed up prices for search advertising, while in *Kent v Apple*, the claimants argue that Apple's exclusionary conduct has pushed up the commission rates that app developers pay for app distribution on iOS.⁸⁰

Quantifying harm to these parties may involve:

- Estimating lost platform traffic, sales, or engagement due to reduced visibility or access.
- Assessing switching costs or contractual disadvantage from dealing with a dominant intermediary.
- Comparing actual outcomes to those observed on more competitive or neutral platforms.⁸¹

These methods draw on marketing analytics, user data, and platform dynamics. Courts may be open to such claims where the harm is concrete and measurable, but the claimant must still show that the exclusionary conduct materially affected its business model or market access.⁸²

Indirect claimant cases face three main challenges. (1) Causation: showing that the abuse, not other market conditions, caused the harm; (2) Standing: in some jurisdictions, indirect purchasers or users may have limited rights to claim individually; and (3) Data: proving indirect harm often requires access to market-wide or platform-level data, which may be difficult to obtain.

However, collective redress mechanisms and class actions can provide a route for consumer harm to be pursued, especially where the effects of exclusion are broad and diffuse. The United Kingdom's opt-out regime under the Consumer Rights Act 2015 creates a framework for such claims, and some digital platform cases have begun to explore this route.

While less common than rival claims, indirect claimant damages are likely to become more prominent as courts and experts develop better methods to model downstream harm—especially in complex or multisided markets.

79. *Bulk Mail Claim v. International Distribution Services PLC* (formerly Royal Mail), CAT 19, Case No. 1639/7/7/24.

80. *Brook v. Google Inc.* CAT 1720/7/7/25, *Kent v. Apple Inc.* CAT 1403/7/7/21.

81. In *Bulk Mail Claim v. Royal Mail*, the claimants plan to analyze prices in Germany and Sweden as neutral comparator markets (CPO Application Judgment, 2025, para 6).

82. See OECD, *Abuse of Dominance in Digital Markets*, DAF/COMP/GF(2020)4.

E. The Duration of the Abuse

For rival claimants, the relevant period for damage quantification is typically the period when the claimant would have been in the market in the absence of the abuse or the period during which it would not have been hindered by the defendant's conduct. For customer claimants, it is typically the period during which prices were higher as a result of softened upstream competition, and for supplier claimants, it is typically the period during which their customer base was limited due to the abuse. In follow-on damage claims, information on the duration of the abuse may be available from the decision on the abuse, otherwise the claim will have to establish the period. Note that the relevant duration (for the purposes of damage quantification) is not necessarily the entire period of the offense. For example, customer and supplier claimants typically do not suffer harm during the attrition phase (see Figure 4). In *2 Travel*, the CAT held that 2 Travel would have ceased operations during the abuse, even in the absence of the abuse. Therefore, the relevant period in this case was only the period before 2 Travel ceased operations.⁸³

Where the claimant is a potential entrant, the relevant duration of the abuse starts when the claimant could have entered the market. Entry barriers unrelated to the abuse (e.g., technical compliance) may affect this date, and the relevant duration has to account for such delays. For example, in *Achilles*, the defendant (Rail Network) argued that it would have taken two years for Achilles to have access to Network Rail's managed infrastructure, because this is how long it would have taken to have a technical system and structure in place to cater for more than one assurance provider.⁸⁴ The CAT judged that in the counterfactual scenario, it may be assumed that Network Rail would have taken reasonable steps to resolve any regulatory or technical issues preventing other providers from competing, and it therefore dismissed Network Rail's arguments.⁸⁵

Similarly, to cartel and exploitative abuse cases, there is a possibility of an abuse overhang, where the impact of the abuse continues after the abuse. For example, it is possible that the claimant is no longer able to enter the market, even after the abuse has stopped, perhaps because the market is characterized by strong network effects, high fixed costs, or economies of scale. As long as causality can be established, damage calculations should account for this overhang.

1. Discounting and Risk. The relevant period for loss assessment depends on the nature and effects of the abuse. In some cases, the impact may be short-lived, for example, if the abuse consisted of a one-off predatory pricing episode. In others, the effects may persist long after the abuse ends, for example, where the abuse prevented the claimant from building scale, reputation, or customer relationships.

Historical losses should be augmented using an appropriate interest rate. This may be the claimant's weighted average cost of capital (WACC), a risk-free rate with a risk premium, or another rate reflecting opportunity cost. The court may also require separate treatment of prejudgment and postjudgment interest.⁸⁶

Where losses are expected to extend into the future, the discount rate should reflect the risk associated with the cash flows being estimated. If the counterfactual involves higher but riskier profits, that risk should be reflected. If the claimant was excluded from a relatively stable and predictable market, a lower rate may be appropriate. Where forecasts involve significant uncertainty—for example, a new product, a volatile market, or an early-stage firm—the court may apply a probability adjustment or cap.

F. Additional Harm

It is not uncommon for a claimant in exclusionary abuse cases to make a claim for harm suffered beyond a reduction of its sales or the profits earned on those sales. Such harm could emerge, for

83. Para. 408, *2 Travel v. Cardiff Bus*.

84. 1298/5/7/18 *Achilles Information Limited v Network Rail Infrastructure Limited*, para. 99.

85. *Ibid.*, paras. 101–105.

86. *Royal Mail Group Ltd v. DAF Trucks Ltd* [2023] CAT 6, paras. 755–832.

example, if the claimant had to incur additional costs due to the abuse. In *Orange/Digicel*, Orange signed exclusive repair contracts with the only available approved repairer in the Caribbean region. As a result, Digicel suffered extra costs from having to ship devices to mainland France for repair and invest further in replacement devices.⁸⁷ On the other hand, the CAT rejected 2 Travel's claim for costs related to staff and management time being diverted from their profitable activity, as it did not find evidentiary support for this claim.⁸⁸

The claimant can also argue that the reduced revenue (due to the abuse) made it impossible for them to go ahead with planned investments and claim the profit from these foregone investments. In this case, *Orange/Digicel* argued that the opportunity cost is given by the WACC on the foregone investment, and that the lost profit would have been used to reduce debt, therefore claiming the interest on these debts.⁸⁹

G. Pass-on

It has long been established in the economics literature that firms that experience increasing costs typically pass at least some of this cost increase on to their customers.⁹⁰ This is no different, where a firm's costs are increased due to the anticompetitive actions of a dominant supplier, which creates a problem central to damage claims: who bore the burden of the anticompetitive conduct, those directly affected by the conduct, or those who were harmed indirectly, and who should be allowed to recover?

Unlike in the United States, courts in the EU and the United Kingdom have allowed indirect purchasers to recover their damages, creating an often complex task for the economics expert to provide evidence on how damages should be apportioned between those affected directly or indirectly by the conduct.

The economic understanding of pass-on is nuanced by the details of the growing body of case law, which applies pass-on to damage claims. For example, there is an important distinction between the pass-on claimed by the defendant and the pass-on argued by the claimants.

Where a claimant has mitigated its loss by passing on the impact to another party, the court may take this into account in calculating damages. This principle was affirmed in *Sainsbury's v. Mastercard*, where the Supreme Court held that pass-on is a form of mitigation of loss, not a separate defense, and must be pleaded and proved by the defendant.⁹¹ The principle has since been applied in several damages cases under the Consumer Rights Act 2015 and the Competition Act 1998, including in *Royal Mail v. DAF*.⁹²

The defendant can use a pass-on defense to mitigate the damage claim. In this case, the defendant bears the burden of proof to show that the claimant did not suffer the damage in its entirety, because some of it was passed on to its customers. This may be straightforward in the context of the simple relationship between a retailer and its customers, but not so much, where it has to be interpreted across an entire supply chain. The economist, in these cases, could approach the problem by estimating the level of pass-through across the whole industry, including each level of the supply chain.

Customer claimants can also claim damage from pass-on, but in such claims, the burden is on them to prove the incidence. This is different from the customer claim we referred to in our earlier discussions, which was about the increased prices due to the reduction of competition at the level of the

87. Cour d'Appel de Paris, *SA Orange et al. Contre SA Digicel Antilles Françaises* Guyane, RG 2009016849, 17 June 2020, 31.

88. Paras. 333–38 in 2 Travel.

89. *Orange v. Digicel*, 48–52.

90. Whereas the economics literature is more likely to refer to this as pass-through, in damage claims, the use of the term pass-on is also common. We use these two interchangeably.

91. *Sainsbury's Supermarkets Ltd v. Mastercard Incorporated and Others* [2020] UKSC 24, especially paras. 208–211. The Court confirmed that pass-on is part of the analysis of mitigation, and that the burden of proof lies with the defendant.

92. *Royal Mail Group Ltd v. DAF Trucks Ltd* [2023] CAT 6, paras. 212–218, discussing pass-on in relation to supply chain dynamics and downstream pricing effects.

claimant. In this case, the customer makes a claim for the increased prices, which are due to the defendant increasing the price of a bottleneck good that the claimant needs, and the claimant passes on some of this increased cost.

In general, pass-on plays a more complex role in exclusionary abuse cases than in exploitative abuse or cartel cases. This can make the defendant's mitigation defense or the customer's pass-on claim more difficult to argue. The main reason is that pass-on is not always relevant for claims related to exclusionary practices.

In exclusionary cases, the most obvious form of pass-on is where a business user or rival passes on the effect of the abuse to its own customers. For example, a foreclosed distributor may charge higher prices or offer reduced service to final customers, or a platform user may suffer lower engagement or conversion, but recover some losses by adjusting its pricing or offering. In such cases, the claimant's harm may be partially mitigated, but the harm does not disappear. It may be shifted downstream, potentially giving rise to follow-on claims by other parties.

Conversely, the dominant firm may argue that the claimant was not in fact harmed—or not harmed to the extent claimed—because it was able to maintain profits or recover lost volumes elsewhere. These arguments must be examined carefully. In exclusionary cases, the harm is often dynamic and structural, not just transactional. Pass-on may be partial or ineffective, and the exclusion itself may have long-term consequences that cannot be offset in the short term.

Where pass-on is established, it raises the question of how harm is allocated between claimants. This is particularly important in multilevel markets or platform ecosystems, where exclusion may affect rivals (lost profits or market share), business users (reduced visibility or platform access), and customers (higher prices or reduced choice).

Courts must avoid double recovery, but also ensure that harm is not left uncompensated simply because it was dispersed. This has been recognized in both cartel and exclusionary contexts.⁹³ Collective proceedings or coordinated litigation may be needed to manage such claims efficiently and fairly.

H. Apportionment and Other Adjustments

Even where harm has been established and quantified, the damages awarded may need to be adjusted to reflect other factors. This is familiar from other areas of commercial damages, but takes on particular importance in exclusionary abuse cases, where harm often arises from a complex mix of market dynamics, strategic responses, and foregone developments. The following subsections provide an overview of how courts have approached these challenges and how experts can assist in dealing with them systematically.

1. Multiple Causes of Loss. It is common for exclusionary abuse to be one of several factors affecting the claimant's performance. A rival may have struggled due to abusive conduct, but also due to weak management, poor investment decisions, or external shocks (e.g., recession, regulation, or technological change). Courts must determine whether the abuse was a material and legally relevant cause of the harm.

The legal test is not that the abuse was the sole cause, but that it was a significant cause—and that it made a material difference to the claimant's position. This principle is well established in tort and commercial law and has been confirmed in competition cases such as *2 Travel*.⁹⁴

In practice, courts may:

- *Disallow* parts of the claimed loss where alternative causes are more persuasive;
- *Apportion* the loss between causes, either explicitly or through adjustments to growth rates, periods, or probabilities;

93. Practices do though differ across jurisdictions. For instance, recent Dutch court decisions have tended to emphasise the need to ensure that harms are not left uncompensated. See Bureau Brandeis, Comparative analysis between the UK, Dutch and French approach to passing-on in competition cases, 9 June 2021.

94. *2 Travel Group PLC (in liquidation) v Cardiff City Transport Services Ltd* [2012] CAT 19, paras. 416–18.

- *Discount* the claim to reflect uncertainty about the relative contribution of the abuse.
- *Experts* can assist the court by identifying the relevant causal factors and testing how the results change under different assumptions about their impact.

2. Overlap between Heads of Harm. In some cases, the same harm may be reflected in more than one element of the damages model. For example, a lost profit model and a business valuation may capture overlapping cash flows, a claim for lost opportunity may partially duplicate a claim for lost sales, or a claimant may have included both specific contract losses and a global business impairment.

Courts are alert to this risk and will seek to avoid double recovery. Experts should aim to ensure that the components of their model are mutually exclusive and that each element is properly defined.

3. Adjustment for Risk and Uncertainty. As noted earlier, courts are not deterred by uncertainty. But where the counterfactual involves a higher risk (e.g., entry into a volatile market, new product launch, or investor funding round), courts may adjust the award to reflect:

- *Probability weighting*: for example, awarding damages based on a 60 percent chance of success;
- *Discounting for uncertainty*: beyond standard discount rates for time and inflation;
- *Conservative assumptions*: favoring downside rather than upside scenarios.

It is the expert's role to show how different scenarios affect the valuation and to justify the assumptions used. Courts often prefer models that show a range of possible outcomes and explain why the central estimate is appropriate.

4. Mitigation and Contribution. Claimants also often incur costs in trying to mitigate the negative implications of the exclusionary practice. This raises two questions. Firstly, should such costs form part of the quantum?⁹⁵ For example, in *Thai Airways*,⁹⁶ the claimant leased three aircraft on short-term operating leases to cover the gap in capacity caused by the defendant's failure to deliver in a timely manner. It was held that the claimant was entitled to recover, among other things, the costs of leasing the replacement aircraft for two years.

Claimants are expected to take reasonable steps to mitigate their loss. If they failed to do so—for example, by not pursuing alternative routes to market, not raising capital when possible, or not adapting their strategy—the court may reduce the award. This is part of the broader framework of reasonableness and proportionality. The U.K. case law suggests that damages should be assessed as if the claimant had acted reasonably,⁹⁷ and claimants should take reasonable commercial steps to mitigate their loss.

Conversely, if the claimant took steps to mitigate but was unsuccessful due to the abuse, this may reinforce the claim. Courts assess mitigation in light of the claimant's capacity, knowledge, and commercial environment—not with hindsight.

In addition, where there are multiple liable parties, courts may consider contribution in the allocation of liability between defendants. This may arise in multidefendant exclusionary conduct (e.g., collusive platform rules or industry practices), though it is less common than in cartel claims.

95. Inderst and Kuhlmann (2022) provide the economic rationale for considering such mitigation efforts by retailers in cartel cases. See Roman Inderst & Raphael Kuhlmann, *Damage Calculation and Mitigation in Retailing in the Presence of Store Brands* (with an Application to the German Coffee Cartel), 13 J. EUR. COMPETITION L. & PRAC. 441–47 (2022).

96. *Thai Airways International Public Co Ltd v KI Holdings Co Ltd* [2015] EWHC 1250 (Comm); [2016] 1 All ER (Comm) 67.

97. See, for example, in *Golden Strait Corpn v Nippon Yusen Kubishika Kaisha* (“The Golden Victory”) [2007] UKHL 12; [2007] 2 AC 353, at para 10.

VI. Conclusion

The quantification of damages in exclusionary abuse cases presents a complex challenge that requires a departure from the more straightforward approaches typically used in cartel or exploitative abuse damage claims. The primary difficulty lies in the added complexity in establishing a credible counterfactual that accounts for the harm caused by the exclusionary conduct, which often affects not only competitors but also customers and suppliers. Unlike price-related infringements, where damages are more easily linked to price differences, the damages caused by exclusionary abuses are often critically dependent on the precise economic context and theory of harm.

The diverse nature of exclusionary practices, particularly in digital markets, further complicates the damage estimation process. Network effects, economies of scale, and other market dynamics mean that the harm caused by exclusion can persist long after the infringement ends. Additionally, the exclusion of rivals can create cascading effects, reducing competition, innovation, and choice for consumers, which are harder to quantify. Therefore, identifying a robust methodology that accounts for both direct and indirect effects is crucial for ensuring accurate damage assessments.

As exclusionary practices continue to evolve, especially in fast-paced digital markets, the approaches to quantifying damages are also likely to adapt. In this respect, we hope that our piece is just the first in a series of papers to come that discuss these new developments.

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