

ECOSYSTEM MERGERS AND UNILATERAL EFFECTS? A FRAMEWORK FOR ASSESSING THE ECOSYSTEM THEORY OF HARM



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April 2026

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By Andrea Coscelli, Emily Chissell, Nitika Bagaria & Tega Akati-Udi



NON-PRICE UNILATERAL EFFECTS IN MEDIA MERGERS

By Lapo Filistrucchi & Teresa Oriani



ECOSYSTEM MERGERS AND UNILATERAL EFFECTS? A FRAMEWORK FOR ASSESSING THE ECOSYSTEM THEORY OF HARM

By Ethel Fonseca, George Tucker & Helder Vasconcelos



UNILATERAL PRICE EFFECTS IN HORIZONTAL MERGERS WITH CAPACITY CONSTRAINTS

By Ignacio J. Núñez



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This paper provides a framework and practical guidance for assessing ecosystem theories of harm in merger control. Several recent merger investigations relating to digital ecosystems have raised novel, and fundamentally similar, economic issues. Yet these cases have at times been viewed as horizontal, and at other times as non-horizontal, notwithstanding the close similarities in the economic issues they raise. We explain that the underlying theory of harm in these cases is fundamentally different from the unilateral effects theory of harm in typical horizontal merger analysis, in several important respects. Against this backdrop, we provide a way to ensure that analytical rigor is maintained in the analysis of the ecosystem theory of harm by breaking it down into its logical steps. We then compare recent cases against this framework. Finally, we provide practical recommendations for future assessments of ecosystem mergers.

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CPI Antitrust Chronicle April 2026

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I. INTRODUCTION

In 2023, the European Commission (“EC”) prohibited the proposed merger between Booking and Etraveli, on the basis of an “ecosystem” theory of harm.² That prohibition is subject to the ongoing appeal to the General Court of the European Union, with judgement still pending at the time of writing.

The ecosystem theory of harm characterises an “ecosystem” built around a so-called “core” product, where one merging party has market power, and a related product owned by the other merging party, but one which is not a direct alternative to the core product. The EC’s theory in *Booking/Etraveli* holds that, due to network effects, while the merger improves the competitiveness of the core product,³ it simultaneously makes it harder for rivals to compete against it, ultimately harming consumers.

In this vein, there are several other recent merger decisions which, while attracting less controversy, have raised very similar economic issues. These include *Meta/Kustomer* (cleared by the EC in 2022), *Amazon/MGM* (cleared by the EC in 2022), and *Google/Photomath* (cleared by the EC in 2023).⁴

Commenting on the EC’s reasoning for not finding adverse effects from similar economic issues that were considered, Guillaume Lorient, Deputy Director-General of Mergers at the EC stated: “*Yet, in Google/Photomath, (also last year) we concluded in relation to Google’s ecosystem that the deal would not result in generating significant additional traffic for Google and hence the transaction would not significantly impact the prevailing network effects. This is in stark contrast to the flywheel dynamics in Booking’s acquisition of eTraveli.*”⁵

Notably, while the theories of harm are essentially the same from an economic perspective, some of these cases have been considered as horizontal (*Google/Photomath*), and others non-horizontal (*Meta/Kustomer, Amazon/MGM*). In *Booking/Etraveli*, the EC characterises its theory of harm as “horizontal effects,” “*even though the Transaction relates to the acquisition of an operator active in a different market.*”⁶

Importantly, the economic mechanism through which it is suggested harm might arise in the above cases is fundamentally different from the typical unilateral effects mechanism present in horizontal mergers. The standard unilateral effects concern relates to the acquisition of a substitute product, which may give the merged entity the ability and incentive to raise prices or reduce quality. In contrast, the ecosystem theories of harm in the cases above operate through the acquisition of a complementary product.⁷ Rather than eliminating rivalry between producers of substitutes, the concern is that strengthening the merged entity’s core product through complementarities or network effects may weaken the ability of rivals to compete, ultimately reducing competitive pressure on that core product to the detriment of consumers.

Against this backdrop, and given that ecosystem theories of harm are likely to remain a feature of merger assessment going forward, we seek to provide some practical guidance as to how, from an economic perspective, such theories of harm can be assessed in future cases.

2 European Commission, Case M.10615 – *Booking Holdings / Etraveli Group* (September 25, 2023), https://ec.europa.eu/competition/mergers/cases1/202451/M_10615_10430872_121034_7.pdf (“EC Decision in *Booking/Etraveli*”). RBB Economics acted as economic adviser to Booking in this transaction. The authors were not personally involved in that matter. The analysis in this paper is based exclusively on publicly available information, and the views expressed are solely those of the authors, independent of any interest Booking may have in the outcome of the ongoing appeal.

3 See EC Decision in *Booking/Etraveli*, para. 926 (emphasis added): “*The Transaction will increase the existing network effects on the hotel OTA market even further, and result in an entrenchment of Booking’s market position because it will allow Booking to attract additional customers to its hotel OTA platform which would in turn become more attractive to hotels, thus reinforcing Booking’s travel ecosystem.*”

4 See Press Release, European Commission, Mergers: Commission clears acquisition of Kustomer by Meta (formerly Facebook), subject to conditions (January 27, 2022); Press Release, European Commission, Mergers: Commission approves acquisition of MGM by Amazon (March 15, 2022); Press Release, European Commission, Mergers: Commission clears acquisition of Photomath by Google (March 28, 2023).

5 Prior to this, in the same speech, Guillaume Lorient said: “*And while these theories are sometimes described as novel, they have actually been present in our decisions for a while. Meta/Kustomer, Amazon/MGM, or Microsoft/Activision Blizzard are all examples of merger cases where we considered, amongst other issues, the potential impact (on rivals as well as on the merged entity) of adding the service that was acquired in one of the parties’ ecosystems.*” See Guillaume Lorient, *Preserving competition across the spectrum*, GCR LIVE Telecoms, Media & Technology Conference (March 20, 2024), https://competition-policy.ec.europa.eu/document/download/8d60e1b5-ec5d-4220-9d54-6d3360e863b5_en?filename=20240320_GCR_TMT_Conference_Guillaume-Lorient_keynote_speech.pdf.

6 EC Decision in *Booking/Etraveli*, para. 194 and 195.

7 And/or, as we explain below, through invoking other dynamics which lead to the improvement of the merged entity’s core product.

We start with a review of recent cases. We then explain that the ecosystem theory of harm involves the following four cumulative steps:

- (i) The merger increases the competitiveness of the ecosystem's core product.
- (ii) This makes it harder for rivals to compete against the core product.
- (iii) This reduces competitive pressure on the core product.
- (iv) This, when balanced against efficiencies, is sufficient to harm consumers.

Each of these steps is important, as without one of them the merger would not harm consumers. For instance, a merger that improves the core product (step (i)), but does not affect rivals' abilities to compete, and therefore does not reduce the competitive pressure on that core product (step (iii)), is not likely to cause harm to consumers. To the contrary, consumers would be expected to gain.

In light of this framework, for future assessments of ecosystem theories of harm, we recommend the following.

- **Recommendation 1: Competition authorities must give full and proper weight to the consumer benefits generated by ecosystem mergers.** The ecosystem theory of harm is based on the idea that the merger strengthens the merged entity's competitive offering. Such strengthening, whether through complementarities, network effects, improved quality, or lower costs, constitutes an immediate and concrete benefit to consumers. These benefits are not secondary or incidental; they are integral to the logic of the theory of harm itself. Any assessment that fails to weigh these pro-competitive effects against the alleged harms risks producing an incomplete analysis and prohibiting mergers that, on balance, enhance consumer welfare.
- **Recommendation 2: Competition authorities should not equate harm to competitors with harm to consumers.** A merger that strengthens an ecosystem will, by its nature, disadvantage rivals. However, this is the expected consequence of more effective competition, not evidence of its reduction. The fact that rivals may lose traffic, scale, or profitability does not in itself establish consumer harm. This distinction is well-established in competition economics and must be applied with equal rigour in ecosystem cases, where improvements to one firm's offering may naturally weaken competing firms.
- **Recommendation 3: Competition authorities must articulate and substantiate a precise economic mechanism through which improved competitiveness translates into consumer harm.** Because ecosystem theories of harm begin with an improvement in the merged entity's offering, consumer harm cannot be presumed. Authorities must identify a specific, evidence-based mechanism explaining how this strengthening ultimately reduces consumer welfare. This requires, first, establishing the existence of meaningful pre-merger market power, a necessary though not sufficient condition for harm, and, second, demonstrating how the merger materially weakens rivals in a way that reduces competitive pressure on the core product over time. In other words, competition authorities must identify the precise causal pathway and substantiate, with evidence, that it is both plausible and capable of producing consumer harm.⁸

II. OVERVIEW OF RECENT CASES

The case most closely associated with the ecosystem theory of harm is *Booking/Etraveli*. That case involves the merger between Booking, an on-line travel agency ("OTA") offering a range of travel services, with a focus on accommodation booking, and Etraveli, an OTA specialising in flights. Put simply, the theory of harm raised by the EC was as follows. Booking already has a strong market position in accommodation OTA, which is bolstered by the existence of strong network effects, meaning that an increased user base increases the quality of Booking's offering.⁹ Adding Etraveli's flight OTA to Booking's ecosystem would attract even more customers to Booking's accommodation OTA and strengthen Booking's position. This is because customers planning a trip often purchase both flights and hotels and, as such, Etraveli would have been a key customer acquisition channel for Booking. In turn, that would make it (even) more difficult for accommodation OTA rivals to compete against Booking. That would reduce the competitive pressure on Booking, worsening outcomes for customers.¹⁰

While *Booking/Etraveli* is the most high-profile case explicitly referring to an ecosystem theory of harm, there are other recent cases which raised fundamentally similar economic issues.

⁸ In this regard, consideration should also be given to the fact that rivals may have competitive responses. They may react by improving their own ecosystems in a way that enhances competition and consumer gain.

⁹ Note that the network effects the EC found in this case were indirect, as they related to a situation where a greater number of consumers led to a better product for hotels, and more hotels led to a better product to consumers. See EC Decision in *Booking/Etraveli*, para. 218.

¹⁰ *Ibid.*, para. 739-745.

One such case is *Amazon/MGM* (2022). Among other theories of harm, the decision indicates the EC considered whether Amazon's strong position in marketplace services would be further strengthened by the addition to the Amazon ecosystem of MGM's video content production. This, it was alleged, could come about because MGM's video content would make Amazon's Prime Video subscription more attractive, by including access to Amazon's premium marketplace features such as free delivery. In turn, this could make it harder for Amazon's marketplace rivals to compete. The EC ultimately dismissed this concern, finding that MGM's video content was not sufficiently important to give rise to such an effect.¹¹

Another such case is *Google/Photomath* (2023). Again, while not the main focus of the investigation, the EC did consider issues similar to those above. Photomath is a search engine used for solving maths problems, which, in at least certain dimensions, was considered superior to Google's own search engine for solving maths problems. Among other things, having found that Google had a strong position in general search,¹² the EC investigated whether the combination of these two products would lead to a sufficiently superior offering in Google's general search, such that its general search rivals would find it (even) more difficult to compete against it.¹³ Ultimately, the EC dismissed such a concern, finding that maths search queries are unimportant for general search, and that, in any event, Photomath's capabilities are not unique or scarce.¹⁴

In *Meta/Kustomer* (2022), the EC investigated a theory of harm bearing similarities to those already discussed. In particular, the EC found that Meta had significant market power in display advertising pre-merger.¹⁵ It also found that, post-merger, Meta may be able to gain some incremental advantage in display advertising through data it would obtain following the merger with Kustomer's customer relationship management ("CRM") software.¹⁶ The EC considered whether this would increase barriers to entry/expansion in the display advertising market, but ultimately concluded that it would not, given the small amount of additional data that Kustomer provides, and that similar datasets were available to competitors from other sources anyway.¹⁷

III. THE ECOSYSTEM THEORY OF HARM

To assist in providing guidance as to how to assess similar cases to the above in future, in this section we identify the key components of the ecosystem theory of harm. We then review the EC's assessment of each of the above cases against these components.

A. Ecosystems

One important component of the theory of harm is the "ecosystem" itself. In the context of the theory of harm in these cases, an ecosystem involves a so-called "core" product, where one of the merging parties has market power, and so-called "related" products.¹⁸

The defining feature is that a merger between the core product and one or more related products strengthens the ecosystem's ability to create consumer value, whether through quality enhancements, stronger complementarities and interoperability, or reductions in transaction and coordination costs when products are consumed jointly. For example, in *Amazon/MGM*, as discussed above, it was posited that better video content (which MGM produces) improves the quality of Amazon's core marketplace offering, its Prime subscription.¹⁹

11 European Commission, Case M.10349 - *Amazon / MGM* (March 15, 2022), https://ec.europa.eu/competition/mergers/cases1/202250/M_10349_8691929_626_3.pdf, para. 299 ("EC Decision in *Amazon/MGM*").

12 European Commission, Case M.10796 - *Google / Photomath* (March 28, 2023), https://ec.europa.eu/competition/mergers/cases1/202339/M_10796_9559358_891_3.pdf, para. 79 ("EC Decision in *Google/Photomath*").

13 *Ibid.*, para. 80. It is worth noting that the EC considered this as a horizontal concern, although it would seem to fall within the categorization of an ecosystem theory of harm that we develop in this paper given the relationship between these products.

14 *Ibid.*, para 83 – 85.

15 European Commission, Case M. 10262-*Meta (Formerly Facebook) / Kustomer* (January 27, 2022), https://ec.europa.eu/competition/mergers/cases1/202242/M_10262_8559915_3054_3.pdf, para. 546, 559 ("EC Decision in *Meta/Kustomer*").

16 *Ibid.*, para. 571.

17 *Ibid.*, para. 578, 585.

18 For example, in *Booking/Etraveli*, the EC considered: "a travel ecosystem revolving around Booking's dominant position in the hotel OTA market" (EC Decision in *Booking/Etraveli*, para. 905)

19 Note this was ultimately dismissed. A key input into this dismissal appears to be the EC's finding that the merged entity would not have market power in the relevant market in which MGM's video content operates, and, as such, this may be an example of a more traditional approach to conglomerate merger assessment. This is discussed further in Table 1 below. EC Decision in *Amazon/MGM*, para. 293, 298.

Economic theory suggests that several economic concepts would be relevant to this definition, which include the following.

- Demand-side complementarity, i.e. where the consumption of one product increases the value of another product to the consumer. This complementarity can be enhanced by technological linkages between products within the ecosystem.²⁰ For example, technological linkages between a set of mobile applications which tend to be used together could allow users to move more easily between them, enhancing the user experience within each application in an ecosystem.
- Network effects, i.e. where increases in the user base of a product increase the value of that product to existing consumers. For example, a social network tends to be more valuable, all else equal, the more users it has. In the context of merger analysis, network effects are relevant because a merger that expands the user base of the core product may, through this mechanism, further improve its competitive offering, making it harder for rivals to attract users. However, the presence of network effects alone does not give rise to a competition concern: what matters is whether the merger generates a sufficiently large and durable shift in the user base to materially weaken rivals' ability to compete such that competition in the market is no longer effective.
- Economies of scale and scope, i.e. where adding users and/or products to the ecosystem reduces the per user cost for the core product. Access to data could play an important role here. For example, adding a business customer relationship management software to an ecosystem may grant access to data which allows more cost-effective targeting of advertising, as the EC investigated in *Meta/Kustomer*.

B. Theory of Harm

To provide guidance for future cases, we seek to clarify the economic logic underlying the ecosystem theory of harm. From an economic perspective, this theory of harm requires the following main elements.

Step (i): The addition of the related product to the ecosystem would need to strengthen the competitive offering of the merged entity in the core product.²¹ For example, by adding a complementary product to the ecosystem, the user experience in the core product is improved.

Step (ii): It follows that the strengthening of the competitive offering of the merged entity in the core product makes it more difficult for rivals to compete against the merged entity's core product.²²

Step (iii): This could result in a reduction in the level of competitive pressure faced by the core product post-merger. However, this would only arise if the ability of rivals to compete is materially weakened. For example, network effects could mean that increasing the user base of the merged entity's ecosystem draws users away from, and therefore worsens, the quality of the offering of rivals to the core product. Thus the merged entity would be faced with weaker rivals than pre-merger. Importantly, however, rivals should not be treated as passive. They may respond to the merger by improving their own offerings or joining alternative ecosystems, thereby mitigating any initial loss of users or scale. The assessment at this stage must therefore determine whether any weakening of rivalry remains material and durable once credible rival responses are taken into account.

Step (iv): For harm to arise, the weakening of competitive pressure on the core product would need to lead to worse outcomes for consumers. It could be the case that, while competitive pressure on the core product weakens, this is only marginal, and the improvement of the merged entity's offering (e.g. a higher quality offering) is more than sufficient to offset any detrimental effect on consumers.²³

C. Case Comparison

To illustrate the relevance of each of the above steps, we sort the EC's findings in each of cases we mention above into these steps. The table below summarises this. We note that *Booking/Etraveli* is still under appeal and is a hotly debated case.²⁴ We do not seek in this paper to engage in the debate about whether the EC's decision was correct in that case; we simply report the positions that the EC took in its decision.

²⁰ OECD Executive Summary. See also Crémer et. al., 2019, page 34: "Ecosystems are an ensemble of services, some complementary, connected to another through private APIs which are APIs accessible only to services from the same ecosystem."

²¹ Note that this point interacts closely with the definition of an ecosystem in the context of this theory of harm above.

²² As explained below, any strengthening in the competitive offering of a firm can be expected to make it more difficult for its rivals to compete.

²³ Jorge Padilla et. al., *Booking/eTraveli and One-Stop Shopping*, CPI Antitrust Chronicle (January 18, 2024), <https://www.pymnts.com/wp-content/uploads/2024/01/4-BOOKING-e-TRAVELI-AND-ONE-STOP-SHOPPING-Jorge-Padilla-Joe-Perkins-Salvatore-Piccolo.pdf>.

²⁴ See, for instance Daniel Gore and Paul Stoddart, *Flight of Fantasy? The European Commission's Booking/Etraveli Prohibition*, European Competition Law Review 46, 38-42 (2024).

Table 1: Comparison of EC's findings against steps in ecosystem theory of harm, selected cases

Step	Booking/ Etraveli	Amazon/ MGM	Google/ Photomath	Meta/ Kustomer
<i>Core product</i>	<i>Accommodation OTA</i>	<i>Prime marketplace</i>	<i>Google Search</i>	<i>Meta display advertising</i>
<i>Related product</i>	<i>Flight OTA</i>	<i>MGM video</i>	<i>Photomath</i>	<i>Kustomer CRM</i>
i. Improvement in core product	Customers can book hotels and flights in Booking's ecosystem. ²⁵ Network effects mean that more demand for a hotel OTA improves the competitive offering. ²⁶	MGM's video added to Amazon Prime marketplace. However, this is unlikely to significantly increase Prime users. ²⁷	Adding Photomath improves Google Search. However, improvement only marginal given limited general relevance of maths queries. ²⁸	Adding Kustomer data may improve Meta's display advertising. ²⁹ However, this increase is likely to be small. ³⁰
ii. Harder for rivals to compete	Booking's offering is more competitive, as above, therefore it is harder to compete against it.	Very limited effect given above.	Very limited effect given above.	Very limited effect given above.
iii. Weakening competitive pressure on the core product	Barriers to entry on accommodation OTA market would increase, given network effects and increase in Booking's scale from the merger. ³¹	Unlikely, given that most of Amazon's marketplace rivals do not have video offerings, suggesting that video is not necessary to compete in marketplace. ³²	Unlikely, given that Photomath's capabilities are neither unique nor scarce. ³³	Unlikely, given that other sources of data are available. ³⁴
iv. Harm to consumers	Booking's market power on accommodation OTAs would increase post merger. ³⁵ That would harm hotels, as it would further reduce Booking's incentive to offer better conditions. ³⁶ It <u>may</u> harm end consumers, given that Booking tends to charge a relatively higher price than competitors, and the merger will increase Booking's customer base. ^{37 38}	Not considered given above.	Not considered given above.	Not considered given above.

The above summary shows how the assessment of these cases differs from that of a unilateral effects theory of harm that applies to horizontal mergers. In doing so, it reveals several fundamental differences between the ecosystem and unilateral effects theories of harm, which we set out in turn below.

25 EC Decision in *Booking/Etraveli*, para. 607, 740.

26 *Ibid.*, para. 217 onwards, 740.

27 EC Decision in *Amazon/MGM*, para. 303.

28 EC Decision in *Google/Photomath*, para. 81, 82.

29 EC Decision in *Meta/Kustomer*, para. 571.

30 *Ibid.*, para. 578.

31 EC Decision in *Booking/Etraveli*, para. 741.

32 EC Decision in *Amazon/MGM*, para. 304.

33 EC Decision in *Google/Photomath*, para. 83-85.

34 *Ibid.*, para 585.

35 EC Decision in *Booking/Etraveli*, para. 742.

36 *Ibid.*, para. 743.

37 *Ibid.*, para. 744. Note that without further context the higher price could simply suggest that Booking has a higher quality than rivals.

38 The EC rejected the notifying parties' arguments that efficiencies would offset any harm.

The first such difference is that in each of the above cases, the merger is between related products that belong to different antitrust markets, as is typically the case in ecosystem mergers, whereas a unilateral effects analysis focuses on products within the same antitrust market.³⁹

While both theories of harm ultimately rely on a reduction in competitive pressure on the merged entity's products, the mechanism through which this arises is different between the two. The unilateral effects theory of harm relates directly to removing competition imposed by the merging parties on one another, thus giving the merged entity the ability and incentive to raise prices or reduce quality. The ecosystem theory of harm, on the other hand, more indirectly relates to weakening competitive pressure imposed by rivals on the merged entity, as described at step (iii) above.

As such, under the ecosystem theory of harm the parties' rivals find it harder to compete, because the merged entity's offering improves as a result of the merger with a related product, as per step (ii). In contrast, under the unilateral effects theory of harm the effect is the opposite: the merged entity's offering worsens as a result of⁴⁰

Indeed, as described at step (i), the ecosystem theory of harm centres around an improvement to the core product; it is through that improvement that the potential for harm flows. As a result, this improvement was fundamental to the assessment in each of the above cases. In contrast, in a unilateral effects analysis, an improvement to the merged entity's product(s) would tend to reduce the prospect for harm. Thus, while such improvements, in the form of efficiencies, are the starting point for an analysis of the ecosystem theory of harm, in a unilateral effects case they are typically an end point, against which to balance the potential for harm.⁴²

IV. PRACTICAL RECOMMENDATIONS

Having considered the EC's assessment of previous ecosystem mergers, we now turn to giving some practical recommendations as to how to assess ecosystem theories of harm in future cases. Economic theory suggests several such recommendations.

Recommendation 1: Efficiencies must be balanced against the harm

The first condition for the ecosystem theory of harm is that the merger improves the competitiveness of the merged entity's offering in the core product, as explained above. As such, the first step of the analysis is to properly assess how the merger leads to such improvements, and, in turn, how it benefits consumers.⁴³

Indeed, as set out above, the harm would only stem from such improvements under specific circumstances. As a result, focussing only on the harm alone results in a one-sided assessment.

As an example, consider an ecosystem of a set of products where convenience to consumers of remaining within the ecosystem is important (for example, a set of apps where a common login and data matching across the apps is important). Suppose that a merger adds another product to this ecosystem, which increases the convenience across all products, improving the user experience. That improvement can be expected to harm the parties' rivals, as it makes their offerings relatively worse. Suppose that there are a few small rivals in the market, who can survive post-merger, but, as a consequence of the merger, a firm which otherwise would have entered the market, and grew to be another rival to the ecosystem in question, does not do so.

Considering only the prospect of harm in such a merger could lead to the conclusion that competition on the core product has permanently weakened, and, over time, that reduced competitive pressure can be expected to harm consumers. However, this would fail to take into account the increase in convenience to users that itself would cause the potential competitor not to enter in the first place. It could well be the case that on balance the merger improves outcomes for consumers, especially given that some rivals would remain in the market.

³⁹ In *Google/Photomath*, while the EC found both Parties to operate in the market for online homework and study help tools that include a maths offering, its theory of harm concerned a different relevant market, that of general search. See EC Decision in *Google/Photomath*, para. 73,74.

⁴⁰

⁴¹ The unilateral effects theory of harm holds if this is not sufficient to offset the merged entity's price increase. The same logic also applies to quality reductions.

⁴² Note that it remains important to balance efficiencies against harm in an ecosystem theory of harm. See step (iv).

⁴³ For a discussion of the benefits of digital ecosystems, see e.g. A.C. Hoyng & A. Karkalets, *Competitive dynamics of digital ecosystems and their implications for competition law enforcement*, *Mededingingsrecht in de Praktijk* (October 2024).

A balanced efficiencies analysis is therefore an integral part of the analysis of the ecosystem theory of harm.⁴⁴ Any assessment is incomplete without it, at the risk of reaching an incorrect conclusion.

Recommendation 2: Harm to competitors must not be taken to be equivalent to harm to consumers

It has long been known in economics that an improvement in the competitive offering of one firm can be expected to harm rivals, even if it benefits consumers. An obvious example is that a price reduction by one firm, which makes its offering more competitive, harms rivals by driving business away from them, but benefits consumers through lower prices. The same logic applies to a firm increasing its product quality.

It follows that a merger that leads to an increase in the competitiveness of the merged entity can be expected to harm its rivals. However, this does not automatically mean that it harms consumers – indeed it could benefit them.

Recommendation 3: An economic mechanism translating harm to competitors to harm to consumers must be articulated and assessed against the evidence

Proper consideration must be given to identifying the mechanism through which an increase in the competitiveness of the core product translates into harm to consumers.

Economic theory suggests that harm is unlikely to arise in the absence of market power.⁴⁵ As such, an assessment of the extent to which the merged entity will have market power post-merger, and how the merger changes that market power, is an important component in any assessment.

That said, market power alone is not sufficient to find harm. Indeed, this is consistent with the EC's case practice: in *Amazon/MGM*, *Google/Photomath* and *Meta/Kustomer*, despite finding that the merged entity would have significant market power in the core product, the EC dismissed the ecosystem theory of harm.⁴⁶

In order to find harm, a precise mechanism must be defined. Economic literature does provide examples through which such harm may arise.

One such example is dynamic effects. A competitor, or a potential entrant, that would have grown into a strong competitive force could be prevented by the merger from accessing sufficient demand to grow. In such circumstances, over time, competitive pressure on the core product would be reduced, relative to the situation absent the merger, potentially allowing price increases (or quality reductions) to the detriment of consumers.⁴⁷

A further dimension of harm concerns the merger's potential impact on innovation and dynamic competition. The risk is not only that a potential entrant may be foreclosed, but also that the merged entity itself, once facing materially weaker rivals, may have a reduced unilateral incentive to innovate or improve its core product over time. In digital markets, where quality and user experience are often the primary dimensions of competition, such dynamic effects may ultimately be more significant for consumers than any immediate price impact.⁴⁸

Another example is market tipping. Where there are strong network effects, it could be the case that relatively small initial increases in an ecosystem's user base could snowball into much larger increases, because each increase improves the product quality.⁴⁹ That could "tip" the

44 See also "The European Commission's Consultation on the Review of the Merger Guidelines: A Response by RBB Economics" available at <https://www.rbbecon.com/publication/article/rbb-response-on-eu-merger-guidelines/>.

45 Market power is the ability to raise prices above costs. Therefore, in order to charge prices higher than costs, and ultimately to harm consumers, a firm must have a degree of market power. Massimo Motta, 2 – Market Power and Welfare: Introduction, in *Competition Policy: Theory and Practice*, 39 (2004) ("Motta (2004)"). To profitably carry out exclusionary strategies, a firm is likely to require significant market power. Motta, 6 – Vertical Restraints and Vertical Mergers, 302 (2004); Motta, 7 – Predation, Monopolisation, and Other Abusive Practices, 411 (2004).

46 See: EC Decision in *Amazon/MGM*, para. 293; EC Decision in *Google/Photomath*, para. 79; and EC Decision in *Meta/Kustomer*, para. 559.

47 For example, see Manu Batra et. al., *Ecosystem theories of harm in EU merger control: analysing competitive constraints and entrenchment*, *Journal of European Competition Law & Practice* 15(6), 357–367 (2024), <https://doi.org/10.1093/jeclap/lpae061>.

48 As argued, for example, by Nicolas Petit & David J Teece, *Innovating Big Tech firms and competition policy: favoring dynamic over static competition*, *Industrial and Corporate Change* 30 (5), 1168–1198 (2021), <https://doi.org/10.1093/icc/dtab049>.

49 See for example Özlem Bedre-Defolie & Rainer Nitsche, *When Do Markets Tip? An Overview and Some Insights for Policy*, *Journal of European Competition Law & Practice* 11(10), 610–622 (2020), <https://doi.org/10.1093/jeclap/lpaa084>.

market in favour of the merged entity, marginalising competitors, and potentially significantly reducing competitive pressure on the merged entity, allowing price increases (or quality reductions) to the detriment of consumers.⁵⁰

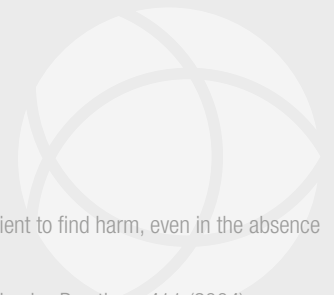
Economic literature offers many other mechanisms through which weakening of competitors can lead to harm to consumers.⁵¹ Importantly, however, each of these mechanisms requires specific characteristics of both the market and the merger. As a result, in order to reach a valid conclusion, an assessment of the ecosystem theory of harm must specify one or more of these mechanisms, identify the relevant characteristics, and test these against the evidence.

V. CONCLUSION

Whatever their distinctive features, ecosystem theories of harm do not require a departure from the analytical rigour expected of any merger assessment. As set out in our recommendations above, this requires identifying a precise mechanism through which harm to consumers arises, testing that mechanism against the evidence, and balancing any such harm against the efficiencies the merger generates. The fact that ecosystem settings involve complementarities, network effects, and dynamic interactions does not lower this evidentiary standard. Rather, it calls for disciplined application of the relevant economic principles in markets where competitive dynamics may be more intricate and less well understood. Ultimately, the analytical framework set out in this paper serves a dual purpose: ensuring that genuine competitive concerns are identified and addressed, while protecting mergers that ultimately benefit consumers from over-cautious enforcement.

⁵⁰ We note that in the *Booking/Etraveli* decision, the EC took the view that the mere existence of network effects was in that case sufficient to find harm, even in the absence of market tipping. EC Decision in *Booking/Etraveli*, para.210. As explained earlier, this is hotly disputed.

⁵¹ For example, see Motta, 6 – Vertical Restraints and Vertical Mergers, 302 (2004); Motta, 7 – Predation, Monopolisation, and Other Abusive Practices, 411 (2004).



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