Response to the EC consultation on its review of the Horizontal and Non-Horizontal Merger Guidelines

Enrique Andreu, Gianmarco Calanchi, Guillaume Duquesne, Kirsten Edwards-Warren, José Pastor, Josep Peya, Rameet Sangha, Nadine Watson

This note benefits from discussions with and comments from Econic Partners colleagues in the U.S. and China

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ECONIC PARTNERS

1. Introduction and recommendations

1.1 This note provides a response to certain topics covered by the In-depth Consultation (the "**Consultation**") on the European Commission's ("**EC**") Horizontal and Non-horizontal Merger Guidelines (the "**Guidelines**").[1]

1.2 We have **five-high level recommendations** on (a) the assessment of mergers in dynamic markets; and (b) the merits and limitations of introducing new objectives and areas of intervention in merger control.

a) **Incorporate theories of harm which have been more recently pursued in cases involving dynamic markets**. These include killer acquisitions, reverse killer acquisitions, and innovation theories of harm. The revisions should articulate the theories of harm; the type of evidence that proves or rebuts them; limiting principles and safe harbours. Limiting principles and safe harbours are particularly important to prevent overbroad application of theories of harm that hold under very stringent conditions and are therefore only relevant in a very limited number of cases. The revised Guidelines should be flexible enough to account for possible future developments.

b) **Refine the guidelines on existing theories of harm to signpost how they will be applied in digital markets** relative to traditional markets. For example, vertical and conglomerate effects arising in digital markets with complex interrelationships between suppliers and customers, or the strengthening of a dominant position within digital ecosystems.

c) **Revise the guidelines on efficiencies** to restore symmetry in the assessment of the harms and benefits of mergers, especially in dynamic markets; to allow for out-of-market efficiencies (possibly under specific conditions); and have a more balanced assessment of merger-specificity.

d) **Add clarity to the guidelines on how sustainability will be taken into account**. When consumers care and firms compete or will compete in the foreseeable future to provide sustainable products, the revised Guidelines should reflect effects on sustainability as potential adverse merger effects or (in-market as well as possibly out-of-market) consumer benefits. When there is a negative environmental externality / market failure, we believe that this is better addressed with other climate policy tools.

e) **Revise the guidelines to recognise the relevance of effects of mergers in labour markets**. The revised Guidelines should confirm that protecting rivalry in labour markets is an objective consistent with protecting consumers; but should also clarify that these issues likely arise in a limited set of circumstances and as such provide safe harbours.

1.3 With respect to competitiveness (**Topic A**), we do not see that the objective of protecting the competitive process is inherently at odds with strengthening competitiveness and creating European champions that can compete in global markets. On the contrary, vigorous competition generally drives innovation, efficiency, and consumer benefits, thereby enhancing firms' ability to scale up and compete globally. That said, a potential gap may exist where merger assessments adopt too static a perspective and fail to give sufficient weight to pro-competitive, dynamic effects. A rigorous review that carefully weighs both risks and benefits – including effects on innovation,

[1] EC. "Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings". *Official Journal of the European Union*, 2004 ("**EC Horizontal Merger Guidelines**"). EC. "Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings". *Official Journal of the European Union*, 2008 ("**EC Non-Horizontal Merger Guidelines**").

scale, and investment – can safeguard consumers while also enabling European firms to compete more effectively worldwide. Our recommendations above address these points.

1.4 The rest of this note sets out our recommendations in more detail.

2. Incorporate recently developed theories of harm in dynamic markets

2.1 This section focuses on the assessment of mergers in dynamic markets, which falls within **Topic C** and **Topic E** of the Consultation.[2]

2.2 Assessing the effects of mergers on competition in highly dynamic markets is complex. The mechanisms of harm can be subtle and complex. In addition, forming views on the likely evolution of fast-evolving markets (both with and without the merger) is inherently challenging.

2.3 To address these challenges, the EC has taken steps to gear up merger control by lowering notification thresholds and revisiting the substantive assessment of mergers in dynamic markets, especially digital markets.[3] In this regard, it has factored in its assessments some of the key characteristics of dynamic markets that can cause mergers to harm competition, putting more emphasis on dynamic foreclosure concerns, and treating the traditional pro-competitive effect presumptions of vertical and conglomerate mergers with greater scepticism.

2.4 The EC has also started to explore “novel" theories of harm – or at least added a new "flavour" to existing theories of harm. Loss of potential competition, a traditional horizontal theory of harm, has acquired a digital[4] (and life sciences[5]) flavour in the form of killer acquisitions and reverse killer acquisitions (e.g., Adobe/Figma, Meta/Within).[6] Innovation theories of harm have been considered, with the challenge of trading off short-term competition and long-term innovation effects (e.g., Dow/DuPont, Bayer/Monsanto).[7]

2.5 These changes have inevitably resulted in greater uncertainty around the assessment framework. We therefore welcome this revision of the Guidelines as an opportunity to consolidate lessons learned, reflect new advancements in economic thinking, and set out a clear, economically sound framework for assessing mergers in dynamic markets.

2.6 As an overarching objective, we believe the revised Guidelines should:

a) **Substantive framework**: provide a structured assessment framework that includes targeted screening tools (analogous to market shares in traditional markets); clear, well-defined theories of harm and the conditions under which they apply; and a coherent evidentiary standard for rebuttal.[8]

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[2] The Consultation invites reflections on possible anti-competitive risks arising from mergers in dynamic markets – including the potential risk to nascent or emerging competition, innovation and investment (Topic C), and the potential risk with entrenchment in digital markets (Topic E). The Consultation asks to identify possible relevant theories of harm, as well as the conditions under which these would materialise, and the elements (factors, evidence, metrics) to assess them. Regarding Topic C, see for instance questions C.3, C.6, and C.9. Regarding Topic E, see for instance questions E.6, and E.7.

[3] See for instance the EC's Guidance on the application of the referral mechanism set out in Article 22 of the Merger Regulation to certain categories of cases (2021/C 113/01), 31 March 2021, where the EC encourages referrals in cases where the referring Member States do not have initial jurisdictions, to ensure the review of potential relevant cases that do not meet the jurisdictional thresholds.

[4] See for instance Massimo Motta and Martin Peitz. “Big tech mergers”. *Information Economics and Policy*, 2021.

[5] See for instance Colleen Cunningham, Florian Ederer, and Song Ma. “Killer Acquisitions”. *Journal of Political Economy,* vol. 129, no. 3, pp. 649-702, 2021.

[6] CMA, Adobe / Figma merger inquiry, Provisional findings report, of 28 November 2023. This merger was also notified to the EC (case M.11033 – Adobe/Figma), but it was abandoned by the parties on November 2023. FTC, Meta Platforms/Within Unlimited, pending litigation.

[7] EC, case M.7932 – Dow/DuPont, Decision of 28 July 2017; EC, case M.8084 – Bayer/Monsanto, Decision of 29 May 2018.

[8] There are broadly two main reasons to discuss a theory of harm in the revised Guidelines: either (i) it is relevant from both an economic and empirical perspective; or (ii) it is a black swan (low occurrence but high impact), with very stringent conditions and therefore only relevant in a very limited number of cases. In this latter case, the revised Guidelines should set clear limiting principles.

b) **Counterfactual**: require that the assessment of a merger takes place against a clearly articulated expectation of how the market will evolve with and without the merger.

c) **Limiting principles**: define thresholds for competitive harm and the approach for balancing pro-competitive and anti-competitive effects. Limiting principles are critical to prevent an overbroad application of a theory of harm; it should provide stringent conditions, which confine the application of a theory of harm to the limited set of cases for which it is truly relevant.

2.7 In the rest of this section, we provide a roadmap for navigating some of the (emerging) theories of harm considered in recent mergers.

Killer and reverse killer acquisitions[9]

The theory of harm

2.8 Killer and reverse killer acquisition theories of harm are particular flavours of a loss of potential competition theory of harm:[10]

a) **Killer acquisitions** refer to the instances in which the incumbent acquires a nascent rival that is growing into a competitive threat or is developing products that, once introduced in the relevant market, will represent a threat. The acquisition is "killer" because the acquirer would then shelve or discontinue the acquired products or lines of research.[11]

b) **Reverse killer acquisitions,** instead, refer to instances in which it is the acquirer that has plans to enter, or is developing new products, in potential competition with the target and, upon the merger, would discontinue its own future overlapping products or lines of research.[12]

Framework and type of evidence

2.9 The current Guidelines include a (briefly described) framework for the assessment of loss of potential competition.[13] This framework can be further fleshed out for killer and reverse killer acquisition theories of harm, which (as formulated) require the killing or shelving of development efforts.

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[9] This subsection focuses on killer and reverse acquisitions theories of harm, which fall within Topic C of the Consultation, and, to a lesser extent, Topic E. Both killer and reverse killer acquisitions theories of harm feed into the reply to question C.6, on the effects of the elimination of a (small) but particularly innovative player with a large competitive potential. Both theories of harm also fall within the scope of Topic E when they relate to digital markets, and particularly feed into the reply to questions E.6 and E.7, on the assessment of non-horizontal mergers that are not based on a foreclosure conduct by the merged entity. As requested in the Consultation, this subsection outlines these theories of harm, discusses their merits and proposes an analytical framework for their assessment and the relevant evidence to consider.

[10] The loss of potential competition theory of harm concerns the combination of two firms that are not currently competing but one of them (either the acquirer or the target) is planning to enter the relevant market in which the other party is present or develop new products in competition with the other party's ones. Of the merging parties would have become close rivals absent the merger, despite not being presently such, the merger removes that competition to the detriment of consumers.

[11] Massimo Motta and Sandro Shelegia. "The "Kill Zone": When a Platform Copies to Eliminate a Potential Threat". *Journal of Economics and Management Strategy,* 34(3): 657-673, 2025.

[12] See the discussion in Gregory Crawford, Tommaso Valletti and Cristina Caffarra. "'How tech rolls': Potential competition and 'reverse' killer acquisitions". *CEPR*, 2020.

[13] The EC Horizontal Merger Guidelines recognise that a merger with a potential competitor can generate anti-competitive effects under two conditions: (i) if the potential competitor significantly constrains the behaviour of the firms active in the market, and (ii) if there is not a sufficient number of other potential competitors who could constrain the merged entity post-merger. The first condition can be met in two alternative ways: the potential competitor, either (i) already exerts a significant constraining influence albeit not being active in the market or (ii) has a significant likelihood to grow into an effective competitive force. EC Horizontal Merger Guidelines, para. 58-60.

2.10 For a killer or reverse killer acquisition to be anti-competitive, the acquisition needs to meet the following cumulative conditions:

a) **Prospect of entry**: the target (killer acquisitions) or the acquirer (reverse killer acquisitions) is launching products or developing new products that will be in competition with the other party. Assessing the prospect of entry requires establishing (i) the ability and (ii) the incentive to enter in a timely and significant fashion absent the acquisition.

b) **Prospect of harm**: upon entry, the target (killer acquisitions) or the acquirer (reverse killer acquisitions) is expected to (i) exert significant competitive pressure on the other party in the foreseeable future and (ii) face limited competition from third parties.

c) **Absence of material efficiencies or other countervailing elements**: the putative loss from the anti-competitive concerns should not be outweighed by (dynamic) efficiencies or other countervailing factors.

2.11 We elaborate below on how this framework applies to killer and reverse killer acquisition theories of harm.

a) Prospect of entry

2.12 In a **killer acquisition setting**, one needs to consider the target's ability and incentive to enter the acquirer's market in the counterfactual.

2.13 Assessing **ability** should involve reviewing the resources and the business model of the target, assessing the extent to which there is a clear (and realistic) entry and monetization strategy. It is also relevant to identify challenges associated with developing the product and evidence of how the target would overcome them in the counterfactual, in particular in light of its technical and financial capabilities. In many industries (e.g., digital industry), failure rates of start-ups are very high.[14] Accordingly, in many instances, absent the acquisition the target would not have the financial and/or technical ability to successfully bring its products or services to market, or to do so in a timely fashion.

2.14 It is then necessary to assess the target's **incentive** to enter. In some cases, there is an existing plan, which is evidence of a commitment to entry. If there is no clear (and certain) plan, then the incentive to enter could be assessed through a standard profitability analysis. This is especially relevant for firms already active in adjacent markets, which may benefit from important knock-on effects on other lines of business from developing an offering in the acquirer's core market or that may need to expand their offering to compete at an ecosystem level. The higher the incentive, the higher the likelihood of entry, all else equal.

2.15 In a **reverse killer acquisition setting**, one needs also to assess the acquirer's ability and incentive to enter in the counterfactual.

2.16 The types of evidence one might seek are the same as for killer acquisitions. However, we note that:

a) If the target is producing something that is easy to replicate, the acquirer is less likely to 'buy' rather than 'build', and barriers to entry are likely to be lower, thus reducing competition concerns. Therefore,

[14] For instance, see Forbes, "What Percentage Of Startups Fail?", of 23 October 2024, which shows that start-ups in the information industry have the highest failure rate among the industries considered in this report after the third year in the United States. Available at: https://www.forbes.com/advisor/business/software/startups-failure-rate/.

competition concerns are more likely to arise if the acquirer has some unique entry advantage that other (potential) competitors may not have.

b) A project having a positive net present value does not imply that the acquirer will automatically undertake it, even if it has a healthy balance sheet, as it may be preferable for the acquirer to allocate its human capital elsewhere – i.e., the opportunity cost of alternative investment options should also be factored in.

2.17 In both settings, strong evidence of the likelihood of entry would include well thought-out business plans, models predicting likelihood of success and potential returns, evidence of financing, resources being committed to entry. Alongside existing and credible entry plans, a key question is whether one party had identified the other party's sector of operation as a strategically important space to bolster or improve its core business. High-level discussions or brainstorms about entering potential markets are unlikely to be strong evidence of either a firm's ability or incentive to enter.

b) Prospect of harm

2.18 In a **killer acquisition setting**, the loss of the target as a potential competitor is unlikely to result in a loss of competition unless the target represents a significant competitive threat for the acquirer. It is therefore necessary to evidence that the target has certain specific characteristics or assets that make it particularly well-suited to challenge the acquirer, when compared to other potential entrants or/and actual competitors.

2.19 Evidence that can help form a view on whether the target represents a credible threat includes (i) contemporaneous internal documents providing insights into the transaction rationale and how the acquirer views the target (and the potential competitive threat it poses); (ii) business and strategy plans of the target, to assess the target's future potential role as a competitive constraint; and (iii) views of industry commentators and analysts' reports to assess market perception of the potential competitive threat the target poses relative to other actual or potential rivals.

2.20 The competitive assessment requires accounting for both the likelihood of entry and its likely impact on the market. When there is significant uncertainty about the success of entry (i.e., the likelihood of entry is very low), concerns may only be justified if entry is expected to profoundly strengthen competition in the acquirer's market. This may be the case, for instance, where competition is *for* the market and the potential entrant is the main source of competition. Even where entry was ultimately unsuccessful, the mere attempt to enter may exert competitive pressure (i.e., perceived potential competition). In this case, evidence showing whether the actual competitors perceive the target as a credible threat is very important.

2.21 The basis for a killer acquisition concern is that the merger would create an incentive for the acquirer to kill or shelve the target's nascent product and/or development efforts. To test whether an acquisition is likely to be a killer acquisition, one should look at the incentives of the acquirer. This involves a detailed analysis of the costs of maintaining the product, the risks arising from closure (and the loss of loyal customers), the impact of the target's product on the profitability of other business lines of the acquirer, and the benefits of further innovation. In practice, it may be difficult to establish whether the acquired business is truly discontinued or integrated into the acquirer's business. That said, as a matter of economics, the fact that the acquirer kills the target's product is not an indispensable requirement for concerns to arise: the transaction may remove the competitive constraint between the parties (i.e., a standard unilateral effect) even without killing.

2.22 Similar considerations apply in a **reverse killer acquisition setting**. We do not repeat them.

c) Absence of efficiencies or other countervailing elements

2.23 Acquisitions may increase the probability or speed that an innovative product reaches the market or allow the development of a product that would otherwise never reach the market.

2.24 In a **killer acquisition setting**, the acquisition may allow the development of a product that would otherwise never reach the market. For example, the acquirer may have resources available – managerial skills, market opportunities, capital – that the target firm lacks. Or it could combine the best of two development processes to bring a more innovative product to the market or do it faster, and this might involve discontinuing one of the pre-merger products. Importantly, in some instances, the acquirer may actually have greater incentives to develop the innovation that was being developed by the target than the target itself. For example, the acquirer may have an existing larger customer base which, combined with positive network effects, could lead to greater adoption of the new product or service than if the target was to launch the innovation on its own.

2.25 In a **reverse killer acquisition setting**, very similar considerations apply. We do not repeat them. We note, however, that this theory of harm involves companies that (pre-entry) operate in different markets and typically offer complementary products pre-merger. If entry does not occur, such transactions can generate efficiencies. Thus, care should be taken when pursuing this theory of harm if the chances of entry and/or of it having a significant impact on competition are small, as this means giving up conglomerate benefits to protect from remote risks of potential entry. We therefore recommend that the revised Guidelines set clear limiting principles. Note that under this theory, given the acquirer is expected to enter the target's market, conglomerate efficiencies cannot be claimed as countervailing factors against these remote risks, as the acquirer would attain them by entering the target's market even without the merger.

Case study: Adobe / Figma (2023)

How this framework can be applied to Adobe / Figma (2023)

In 2023, Adobe announced its contemplated acquisition of Figma. Adobe is a global software company offering, among others, creative design software tools (e.g., Illustrator and Photoshop) and a de-stock-based interactive product design tool (Adobe XD). Figma is a provider of a web-based collaborative tool for interactive product design (Figma Design) as well as a whiteboarding tool. Interactive product design software tools are used mainly to design websites, mobile applications, and other digital products. With creative design software, users can create or edit digital assets, such as photos (so-called "raster images"), graphic illustrations (so-called "vector images") and videos.

Among other concerns, the EC and the UK Competition and Markets Authority ("CMA") considered whether the transaction was likely to raise competition concerns as a result of the elimination of Figma as a potential competitor in the markets for vector and raster editing tools, thereby strengthening Adobe's dominance in these markets.

They alleged that:

- Adobe has an established position in these markets.
- Figma does not yet supply vector and raster editing tools.

- Absent the transaction, Figma was highly likely to enter these markets and grow into an effective competitive force.
- Figma was uniquely placed to challenge Adobe, because Adobe (and Figma) derived significant competitive advantages from their multi-market presence, with network effects operating across markets, and Figma could leverage its position in the market for product design software to compete in the markets for vector and raster editing tools.

The transaction was ultimately abandoned as a result of regulatory challenges.

The analysis conducted by the EC is not publicly available. It is therefore not possible to assess the EC's analysis against our proposed economic framework. That said, a recent Competition Merger Brief provides valuable insights into the framework followed by the EC in this case. This framework is consistent with our proposed economic framework.[15]

The analysis conducted by the CMA was insufficient to qualify this transaction as a killer acquisition capable of harming consumers. The CMA's concerns are better characterised as involving the loss of potential competition in a context where the acquirer failed to advance a credible efficiency defence. The preliminary analysis of the CMA is public and can be assessed against our proposed economic framework.[16] The table below considers each condition in turn.

Conditions / CMA's findings	Reasoning	Economic evidence relied upon
Limiting principle. Does the acquirer have an entrenched position in its core market? **YES**	• Adobe had a leading market position in both vector and raster editing. • Adobe derived significant competitive advantages from its multi-market presence and network effects.	• Share of supply. • Adobe's internal documents. • Third party views (reports, surveys, market test).
Condition (ai). Would the target have the ability to enter the market of the acquirer in a timely manner and significant absent the acquisition? **YES**	• Figma had already taken steps to develop its vector and raster functionality. • Figma considered it was well placed to develop vector and raster editing functionality that could challenge Adobe.	• Figma's current offering. • Assessment of ability of Figma to overcome potential (technical) challenge and resource constraints. • Figma's internal communications, strategy discussions, modelling and market research. • Figma's attempted acquisition in this space.
Condition (aii). Would the target have the incentive to enter the market of the acquirer in a timely and significant	• Vector and raster editing had a good strategic fit with Figma. • Adobe was pursuing a multi-market competition strategy to strengthen	• Assessment of the impact of introducing vector and raster editing tools on Figma's existing products.

[15] EC, Competition merger brief, Issue 2/2024 – September, https://op.europa.eu/en/publication-detail/-/publication/4497996a-7fa2-11ef-a67d-01aa75ed71a1/language-en.
[16] CMA, Adobe / Figma merger inquiry, Provisional findings report, of 28 November 2023.

manner absent the acquisition? **YES**	its product design offering, which in turn strengthened Figma's incentive to employ such a strategy. • The size of the opportunity was large. • Cross-selling opportunities with Figma existing customers base would reduce the cost of acquiring customers and allow quick expansion.	• Survey of customers demand for Figma's vector editing and raster editing tools. • Assessment of the size of the opportunity relative to other alternatives. • Assessment of the extent of customer adjacency across products through customers overlap and product usage analyses. • Third party views (market test).
Condition (bi). If so, would the target exert significant competitive pressure on the acquirer in the foreseeable future? **YES**	• Adobe perceived threat from Figma. • Adobe's users at direct risk (customers of Figma Design and Adobe's vector and raster editing tools which could adopt Figma's) represent a significant revenue source of Adobe. • Adobe's product development responded to this threat.	• Assessment of the extent of customer adjacency through customers overlap and product usage analyses. • Adobe's internal documents. • Third-party evidence (market test).
Condition (bii). Would there be other actual or potential competitors that could be expected to constrain the merged entity post-transaction? **NO**	• Given its long standing and very strong market position, Adobe faced limited actual or/and potential competitive constraints.	• Closeness of competition analysis. • Adobe's internal documents on perceived competitors. • Competitors current market positions, product development plans and target use cases. • Third party evidence.
Condition (c). If so, would the putative loss from anti-competitive concerns be outweighed by (dynamic) efficiencies?	• N/A	• N/A

Innovation theory of harm[17]

The theory of harm

2.26 An **innovation theory of harm** is one in which a merger reduces innovation in a market and/or innovation space relative to the counterfactual, even if it does not immediately result in higher prices or lower output.

Framework and type of evidence

2.27 We share the EC's view that "[m]*ergers can impact innovation competition in both directions*,"[18] and support its effort to establish a framework capable of capturing this duality and providing clear guidance on the precise (competing) effects which should be taken into account and how.[19]

2.28 In our view, the following effects should be part of the assessment and discussed in the revised Guidelines:

a) change in the ability of the merging parties to innovate;

b) change in the incentive of the merging parties to innovate; and/or

c) change in the innovation process.

2.29 One cannot assume *a priori* whether the net outcome of these three effects will be an increase or decrease in innovation. However, there are conditions under which a decrease in innovation is more or less likely, and evidence should be gathered to assess whether those conditions hold in a specific case.

2.30 In the following we discuss each of these three effects in more detail.

a) Changes in the ability to innovate

2.31 On the one hand, a merger may improve the ability to innovate if it increases the resources available to pursue innovation. If, pre-merger, at least one of the parties faces a binding constraint in the resources available to pursue its innovation efforts – such as financial limitations, subscale operations, IP limitations – and the merger can lift those barriers, the increase in ability can lead to a net increase in innovation.[20]

2.32 One the other hand, a merger may in theory reduce the ability to innovate if the merged entity foregoes some (binding) capabilities through the acquisition – for example, if the acquirer depletes its cash reserves or increases its indebtedness to fund the acquisition to the point that it reduces its financial resources to dedicate to innovation post-merger.

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[17] This subsection discusses the effects of mergers on innovation, which falls within Topic C of the Consultation. It relates to questions C.3 and C.4, which consider the circumstances under which a merger can negatively impact the ability and incentives of the merged entity to innovate and invest (respectively) – including the theory of harm, the conditions under which it could materialise, and the elements for its assessment.
[18] EC, Topic C of the Consultation, para. 51.
[19] "*Effective competition brings benefits to consumers, such as low prices, high quality products, a wide selection of goods and services, and innovation. Through its control of mergers, the Commission prevents mergers that would be likely to deprive customers of these benefits by significantly increasing the market power of firms*". EC Horizontal Merger Guidelines, para. 8.
[20] A merger can improve the ability to innovate even where there are no improvements in the innovation process. Improving the innovation process could increase ability even further. Increasing the ability could increase innovation even where the incentives to innovate decline. For example, if the parties cannot innovate at all pre-merger but can innovate post-merger, then the merger increases innovation even if the incentives decline.

2.33 In assessing changes in the ability to innovate (i.e., balancing these two competing effects), it may be informative to consider, among others, each party's R&D capabilities – such as assets, personnel, intellectual property, know-how, and how these resources complement or substitute one another – as well as the decision-making process for approving R&D investments, including internal plans, internal IRR-based appraisals, budget approvals, and reasons for rejected projects. It can also be informative to review the financial positions of both parties to evaluate their ability to fund R&D through internal or external means, before and after the merger, and to identify whether the merger removes any innovation barriers, such as granting access to patents, technology, or other critical resources.

b) Changes in the incentive to innovate

2.34 Firms innovate when they expect their efforts to generate higher returns.

2.35 Absent innovation efficiencies (and without market expansion effects or pre-merger spillovers between the parties), a merger can change these expectations in two main ways.[21]

i) **Innovation externality**: when one firm innovates, it may steal sales from the other party, reducing the other party's profits whether or not the other party innovates. The difference in the other party's profits when the first party does or does not innovate is the innovation externality. The merger internalises these sales. This effect is stronger when the parties are close competitors and would remain so absent the merger, similar to the standard unilateral effects in price.

ii) **Price coordination effect**: with the merger, the parties' profits are higher (both in the innovation and no-innovation scenarios) to the extent that competition between them is removed. If the merger increases post-innovation profits more than pre-innovation profits (i.e., the merger increases the return on innovation) then the merger raises incentives to innovate, otherwise it reduces them.

2.36 Which effect dominates is ambiguous, but Valletti (2025) finds that the innovation externality tends to be greater than the price coordination effect in concentrated markets, so the net effect is a reduction of innovation.[22]

2.37 However, this finding is not within a setting which the merger confers each party access to the knowledge and innovation results of the other party (even without accounting for innovation efficiencies).[23] Sharing innovation outcomes means that whenever one party succeeds in innovating, the other party does too.[24] This tends to increase incentive to innovate, leading in some cases to an overall increase in the incentive to innovate.[25] In other words, absent innovation efficiencies, the effect of mergers on innovation is ambiguous: when the

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[21] Regarding product innovation, see Giulio Federico, Gregor Langus, and Tommaso Valletti. "A Simple Model of Mergers and Innovation". Economics Letters, vol. 157, issue C, 136-140, 2017, and Giulio Federico, Gregor Langus, and Tommaso Valletti. "Horizontal mergers and product innovation". *International Journal of Industrial Organization*, vol. 59, p. 1-23, 2018. Similar conclusions are reached regarding process innovation by Massimo Motta and Emmanuele Tarantino. "The effect of horizontal mergers, when firms compete in prices and investments". *International Journal of Industrial Organization*, vol. 78, 2021. Marc Bourreau, Bruno Jullien, and Yassine Lefouili. "Horizontal mergers and incremental innovation". *RAND Journal of Economics*, forthcoming, 2024 extend the framework from Federico *et al.*, 2018, to include both product and process innovation – and reaching the same conclusions. This literature – in particular the work of Federico *et al.*, 2017 and 2018 – underpins the reasoning in the EC's decisions in Dow/DuPont and Bayer/Monsanto.
[22] Valletti, 2025.
[23] Valletti, 2025, addresses this point specifically, considering these as synergies – see p. 3.
[24] This is the extreme case in which one party's innovation is fully relevant to the other party. This effect is milder if an innovation is partially relevant.
[25] Assuming that the merging parties with the merger would coordinate and jointly optimise their innovation efforts but would not share their innovation advances seems to us to be inconsistent.

innovation externality is smaller than the price coordination effect, then mergers increase innovation; when it is larger, then innovation is reduced only when the difference exceeds the benefits of knowledge sharing.

2.38 Moreover, innovations may give rise to market expansions, i.e., increase market demand. Advances in areas like AI not only shift demand between suppliers but also increase total adoption. Market expansion increases post-innovation profits both with and without the merger. To the extent that sharing knowledge among the parties increases the probability of innovating, then the market expansion is greater with the merger.[26] Finally, by internalizing involuntary knowledge spillovers, mergers can help firms capture more of the benefits of their R&D, which again strengthens incentives to innovate.[27]

2.39 In assessing changes in the incentive to innovate, it is important to consider the types of innovations expected, including both incremental improvements that replace existing demand and disruptive breakthroughs that create new markets. The analysis should evaluate which companies are the main innovators and compare their resources, capabilities, patents, track records, and likelihood of success both with and without the merger. It should also examine the extent of overlap in the parties' research relative to rivals, closeness of competition in innovation between the parties, and the potential for one party's research to accelerate the other's progress. Additionally, it is relevant to assess any existing knowledge spillovers and whether the merger would internalize them, as well as review the historical impact of the parties' innovations on market growth and the likelihood of similar effects in the future.

2.40 Evidence that could be informative include the number and track records of active innovators, the impact of each firm's past innovations on the other's sales, and how both firms and competitors respond to each other's innovations over time. Internal documents and data on pipeline products, as well as R&D investments, are crucial to gauge the seriousness and success of innovation efforts. Both price and innovation diversion ratios[28] can also be informative of the effects of a merger.[29] Additionally, insights from industry experts help understand historical market developments, significant innovations, and potential future shifts in the market landscape.

c) Changes in the innovation process

2.41 In addition to sharing their knowledge (discussed above), mergers combine the parties' assets, research teams, capabilities, IP, know-how etc. The parties may be able to recombine these inputs into a more effective innovation process, remove duplications and reinvest the saved resources into other R&D projects.[30] These can increase both the likelihood and the magnitude of success of the products which will ultimately be created

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[26] Ioannis Kokkoris and Tommaso Valletti. "Innovation considerations in horizontal merger control". *Journal of Antitrust Enforcement*, 16 (2):220-261, 2020; Valletti, 2025.
[27] Ángel L. López and Xavier Vives. "Overlapping Ownership, R&D Spillovers, and Antitrust Policy". *Journal of Political Economy*, vol. 127, num. 5, 2019. See also, for example, An and Zhao, 2019, find that learning through doing through knowledge spillovers were a plausible explanation for decreased costs following the Boeing-McDonnell Douglas merger.
[28] "*The innovation diversion ratio to Firm A from Firm B is the fraction* […] *of the extra gross profits earned by Firm A when it devotes more resources to innovation that come at the expense of Firm B*". Joseph Farrell and Carl Shapiro. "Antitrust Evaluation of Horizontal Mergers: An Economic Alternative to Market Definition". *The B.E. Journal of Theoretical Economics, Policies and Perspectives*, vol. 10, issue 1, article 9, 2010, p.33.
[29] Bourreau et al., 2024 state the following: "*the mere comparison of two diversion ratios* [price and innovation diversion ratios] *can help screen mergers in industries where innovation plays a key role. In particular, this comparison allows us to identify scenarios where the impact of the merger on prices (for given innovation levels) can inform about the impact of the merger on innovation*"
[30] On the increased ability to redirect and optimise R&D efforts, see Vincenzo Denicolò and Michele Polo. "Duplicative research, mergers and innovation". *Economics Letters*, 166:56-59, 2018; and Nicolas Petit. "Innovation Competition, Unilateral Effects and Merger Policy". *82 Antitrust Law Journal*, No. 3, 2018.

through the innovation process, as well as generating cost savings.[31] Improvements in the innovation process can increase the ability and/or the incentive to innovate. They increase the ability to innovate if the combined assets remove roadblocks that were slowing down innovation. They increase incentives to innovate if they improve the return on investment for innovation. Improvements to the innovation process are very fact specific, so they can be treated as an efficiency defence for the merging parties to advance.[32]

2.42 To assess changes in the innovation process relative to the counterfactual, the parties should provide evidence as to their pre-merger and post-merger R&D plans (e.g., internal documents containing those plans) and explain whether they expect to achieve any improvements in the innovation process.

[31] Along the same lines, there is established literature on the benefits of R&D cooperation – see for instance Michael L. Katz. "An analysis of cooperative research and development". RAND Journal of Economics, vol. 17, num. 4, 1986 – as well as more specifically on the cumulative innovation, i.e., the process where new advancements build on previous innovations – see for instance Suzanne Scotchmer. "Standing on the shoulders of giants: cumulative research and the Patent Law". *Journal of Economic Perspectives*, vol. 5, num. 1, pp., 29-41, 1991.
[32] For an illustration on the potential impact of R&D efficiencies, modelled as an increase in the returns of R&D, see for instance Federico *et al.*, 2018.

3. Refine the guidelines on existing theories of harm to signpost how they will be applied in digital markets

3.1 This section focuses on the assessment of vertical, conglomerate, and so called "ecosystem" theories of harm, when applied to digital markets. This falls within **Topic E** of the Consultation.[33]

3.2 Traditional vertical and/or conglomerate theories of harm have been revisited in an attempt to capture the digital market dynamics (i.e., revisiting theories at issue in GE/Honeywell),[34] including input/access foreclosure strategies (Illumina/Grail, Amazon/iRobot, Microsoft/Activision)[35] and leveraging strategies (e.g., Broadcom/VMware, Amgen/Horizon).[36]

3.3 The so-called "ecosystem" theory of harm which arose in Booking/eTraveli[37] hypothesizes a strengthening of a dominant position within a market for hotel online travel agents, which some commentators have described as an ecosystem.[38]

3.4 In our view, the existing Guidelines provide a framework which can be applied to digital markets, although clarity could be added as to how this will be done (e.g., taking account of characteristics of digital markets such as network effects) and what evidence will be sought.

Vertical and conglomerate theory of harm[39]

The theory of harm

3.5 A vertical / conglomerate foreclosure theory of harm focuses on the ability and incentive of the merged entity to leverage its market power in one market (the "**leveraging market**") to foreclose competition in another (the "**leveraged market**").

3.6 Some of the characteristics of digital markets – such as economies of scale and scope and network effects, which contribute to the incentives of firms to leverage their position on vertically related or adjacent markets – may increase the risks of traditional vertical and conglomerate concerns.[40] Further, technical leveraging through limited interoperability increases a firm's ability to engage in a foreclosure strategy. Limiting interoperability of

[33] The Consultation invites reflections on possible anti-competitive risk with entrenchment in digital markets (Topic E). Questions E.6, E.8 and E.9 ask how the current framework for analysis should be adapted to assess the effects of digital and tech mergers, to identify possible relevant theories of harm related to the effects that digital and tech mergers can have on competition, as well as the conditions under which these would materialise, and the elements (factors, evidence, metrics) to assess them.
[34] EC, case M.2220 – General Electric/Honeywell, decision of 3 July 2001.
[35] EC, case 10188 – Illumina/Grail, decision of 6 September 2024, later withdrawn; EC, case M.10920 – Amazon/iRobot, abandoned on January 2024, and EC, case M.10646 – Microsoft/Activision Blizzard, decision of 15 May 2023.
[36] EC, case M.10806 - BROADCOM / VMWARE, Decision of 12 July 2023; FTC, Amgen/Horizontal Therapeutics, order of 1 September 2023.
[37] EC, case M.10615 – Booking Holdings/eTraveli Group, decision of 25 September 2023.
[38] See, for example, Manu Batra *et al*. "Ecosystem theories of harm in EU merger control: analysing competitive constraints and entrenchment." *Journal of European Competition Law & Practice*, vol. 15, no. 6, 2024, pp. 357-367.
[39] This subsection focuses on vertical and conglomerate theories of harm in digital markets, which fall within Topic E of the Consultation. These theories of harm feed into the reply to question E.6, on how the current framework for analysis should be adapted to assess the effects of digital and tech mergers, and E.13, on the competition risks of linked to interoperability concerns resulting from a non-horizontal merger. As requested in the Consultation, this section outlines these theories of harm, discusses their merits and proposes an analytical framework for their assessment and the relevant evidence to consider.
[40] EC, Directorate-General for Competition, Crémer *et al.* "Competition policy for the digital era". *Publications Office*, 2019.

competitors' products within a system (or simply refraining from exerting the necessary effort or from sharing information necessary for interoperability) can make it easier to implement leveraging strategies.[41]

Framework and types of evidence

3.7 The risk of vertical / conglomerate foreclosure can be assessed through the well-established ability-incentive-effect framework.[42] This framework is still relevant in digital markets, albeit requiring further fleshing out of how the characteristics of digital markets would affect the assessment. The revised Guidelines should ideally reflect these elements too.

3.8 In particular, for a vertical / conglomerate theory of harm to hold, the following conditions would need to be shown to be true:

a) **Ability**: The merged entity has the ability to foreclose competitors.

b) **Incentive**: The merged entity has the incentive to foreclose competitors.

c) **Effects**: The foreclosure strategy has significant effects on competition.

d) **Absence of material efficiencies or other countervailing elements**: The putative loss from the anti-competitive concerns is not to be outweighed by (dynamic) efficiencies or other countervailing factors.

3.9 We refer to the existing Non-Horizontal Merger Guidelines for a detailed discussion of these conditions.

3.10 Here we make a few remarks on the application of this framework in digital markets.

a) Ability

3.11 This condition should not be understood as the mere ability of the merged entity to engage in a foreclosure strategy (e.g., degrade interoperability) but rather its ability to foreclose competitors, which is broader in scope.[43]

3.12 In this respect, an important feature of digital markets is the strong interdependence of various large actors along the value chains, within and across ecosystems. It can be risky for the merged entity to engage in a foreclosure strategy which could (inadvertently) upset important partners and/or customers that they rely upon within the ecosystem.

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[41] Motta and Peitz, 2021.
[42] EC Non-Horizontal Merger Guidelines, para. 94: "[I]*n assessing the likelihood of such a scenario [foreclosure], the Commission examines, first, whether the merged firm would have the ability to foreclose its rivals, second, whether it would have the economic incentive to do so and, third, whether a foreclosure strategy would have a significant detrimental effect on competition, thus causing harm to consumers. In practice, these factors are often examined together as they are closely intertwined.*"
[43] At a high level, the ability to foreclose competitors depends on several factors. The merged entity is more likely to have the ability to foreclose competitors in the leveraged market if (i) many customers purchase both the leveraged and leveraging products for complementary purposes, (ii) the merged entity has substantial market power in the supply of the leveraging product (i.e., there are limited competitive alternatives), such that there would be limited switching away from the merged entity leveraging product when customers are forced (or incentivized) to buy the leveraged products from the merged entity, (iii) the merged entity must be able to commit to not selling the leveraging product on a standalone basis or at a significantly higher price so that the foreclosure cannot be defeated by a single product competitor willing and able to engage in a war of attrition, and finally (iv) a substantial number of customers would be likely to stop purchasing from rivals in the leveraged market, thereby marginalizing them. In particular, if the demand for both the leveraged and leveraging products is limited, a leveraging strategy is unlikely to reduce materially sales prospects of rivals and ultimately reduce their ability and incentive to compete in the leveraged market. Even if the post-merger firm has market power for at least one of the products, it may be unable to employ a strategy to foreclose competition for many reasons, including contractual restrictions. Further, if consumers have buyer power and are able to exert some control over the terms of the sale or are able to credibly threaten to cease purchasing the leveraging product, if the foreclosure is implemented, then the credibility of a firm's foreclosure strategy could be undermined.

3.13 In particular, the merged entity may be dealing with players with countervailing power. If targeted by the foreclosure strategy, those players could credibly threaten to switch away and/or to retaliate in other adjacent markets where the merged entity may purchase services from them or collaborate with them. More generally, even if not targeted by the foreclosure strategy, they may have a strong interest into resisting a foreclosure strategy, thereby protecting affected customers from which they may supply services and ultimately maintaining competitive sources of supply.

b) Incentive

3.14 The assessment of the incentive to foreclose requires determining whether it would be profitable for the merged entity to adopt this strategy. The merged entity has the economic incentive to foreclose its rivals if profits increase (i) in the short run because the gains from the additional sales of the leveraged product exceed any lost sales of the leveraging product, and/or (ii) in the long run because rivals are weakened and thus the merged entity can strengthen its position and increase prices in the leveraged market.

3.15 Vertical arithmetic (and more advanced economic modelling) can be used to assess these economic incentives.[44] Simply put, it assesses the profitability of a foreclosure strategy by comparing its expected costs and its benefits. The costs correspond to the lost margin on the affected customers which switch away from the merged entity in response to the foreclosure strategy. The benefits correspond to the incremental margin on affected customers which switch to the merged entity away from its rivals. Vertical arithmetic ultimately allows to estimate the "**critical switching rate**", i.e., the proportion of the affected customers which would have to switch to the merged entity for the foreclosure strategy to be profitable.

3.16 Two considerations:

a) A low critical switching rate implied by the vertical arithmetic does not by itself indicate an incentive to foreclose.[45] Further elements need to be taken into account to determine whether the actual switching is likely to exceed the critical switching rate.[46] In this respect, the likely response of customers and rivals to the foreclosure strategy should be carefully assessed, through natural experiment, surveys, any available internal evidence.

b) In digital markets, the vertical arithmetic may need to be refined to account for both the static and the dynamic effects of such a strategy, including possible knock-on effects on other lines of business of the acquirer beyond the relevant markets (e.g., because of spillover effects, reputational effects, ecosystem effects). In practice, these dynamic effects need to be taken into account when estimating costs, benefits and critical switching rate.[47] The assessment may also need to account for both within and out-of-market competition, including ecosystem competition.

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[44] Serge Moresi and Steven C. Salop. "vGUPPI: Scoring Unilateral Pricing Incentives in Vertical Mergers." *Antitrust Law Journal*, vol. 79, no. 1, 2013, pp. 185-214.
[45] "[W]*hile the Commission acknowledges that the critical switching rates implied by such standard analysis are high, they do not imply that foreclosure would be unprofitable.*" EC BROADCOM / VMWARE decision, para. 664.
[46] Daniel P. O'Brien. "Tethering vertical merger analysis." Available at SSRN 4061410, 2022.
[47] Daniele Condorelli, Jorge Padilla, and Youngji Sohn. "Vertical Mergers in Ecosystems with Consumer Hold-Up." *The Journal of Industrial Economics*, vol. 72, no. 2, 909-939, 2024.

c) Effects

3.17 The assessment of the effects on competition need to consider the magnitude of the foreclosed demand and its impact on the ability and incentive of rivals to compete (i.e., the risks of foreclosure or marginalization). Dynamic effects can be important mechanisms through which foreclosure strategies enabled by vertical and conglomerate mergers can generate consumer harm, even if they involve efficiencies that are initially passed on to consumers. In principle, if the merger leads to the exit of less-efficient competitors in either the acquirer or target markets, this can be a sign of the competitive process at work. However, harm to dynamic competition can emerge if the merged entity firm is able to foreclose more-efficient competitors from the market, and erect entry barriers that insulate it from future competitive pressures. A particular risk may stem from conduct that seeks to deny rivals scale and/or network effects.

Case study: Broadcom/VMware (2022)

How this framework can be applied to Broadcom/VMware (2022)

In 2022, Broadcom announced its contemplated acquisition of VMware. Broadcom manufactures a variety of commoditized semi-conductor products, include storage adapters, NICs, and FC HBAs that are used as components of datacenter servers. VMware makes virtualization software, which allocates the hardware resources of a datacenter server across workloads, allowing one server to efficiently run many workloads.

Agencies investigating the merger of Broadcom and VMware considered whether the combined firm would leverage VMware's market power as a provider of virtualization software to push customers to use Broadcom components in VMware-virtualized servers, i.e., to foreclose Broadcom's hardware rivals through denying/delaying interoperability with VMware's virtualization software. Thus, the agencies investigated the transaction as a vertical merger.

Agencies cleared the merger with behavioural remedies, in some cases after lengthy investigations. The parties closed the transaction in November 2023.

Both the EC and CMA followed the ability-incentive-effect framework in their assessment.[48]

Conditions / EC and CMA's answers	Reasoning	Economic evidence relied upon
Condition (a). Would the acquirer have the ability to engage in foreclosure? **YES total foreclosure (CMA), YES partial foreclosure (EC)**	• VMware had market power in the supply of server virtualisation software in enterprise deployments. • Interoperability with VMware played an important role in the supply of I/O hardware. • VMware could potentially harm Broadcom's competitors by refusing to certify I/O hardware drivers for new generations of competitor I/O hardware. • In addition, the EC considered that a total foreclosure strategy would likely affect VMware's reputation for neutrality, which is imperative for VMware's business model. This was why it ruled out total foreclosure.	• Share of supply in server virtualisation software. • Evidence and analysis relevant to assessing the constraint on VMware: use of alternatives by virtualisation customers, movement of new/existing workloads to alternatives, customers view on substitutability of alternatives. • VMware's internal documents on VMware's competitive position and the importance of neutrality. • Third party views (reports, surveys, market test) on VMware's competitive position and importance for neutrality.

[48] EC, case M.10806 - BROADCOM / VMWARE, decision of 12 July 2023. CMA, Broadcom/VMware merger inquiry, Final Report, of 21 August 2023.

Condition (b). Would the acquirer have the incentive to engage in partial (EC) or total (CMA) foreclosure? **YES (EC), NO (CMA)**	• A very large proportion of VMware customers would need to switch to the I/O hardware products supplied by Broadcom for a total foreclosure strategy to be profitable. • Evidence from customers showed that only some (EC) / the vast majority (CMA) would switch, making the strategy profitable (unprofitable). • The CMA considered that there is at least some risk of retaliation by server OEMs and that the pursuit of such a strategy would jeopardise wider relationships with customers and competitors and result in substantial costs. To the contrary, the EC considered that OEMs could magnify the switch by de-listing non-VMware certified I/O hardware.	• Quantitative static profitability analysis of foreclosure strategy (vertical arithmetic). • Evidence from virtualisation customers on their likely response to a loss of interoperability (survey, market test, internal documents). • Evidence on the response of server OEMs to foreclosure (market test) and the importance of wide interoperability. • Analysis of potential dynamic effects from foreclosure.
Condition (c). Would the foreclosure strategy have any material impact on competition? **YES (EC), NOT CONSIDERED (CMA)**	• Broadcom was dominant in the supply of I/O hardware, and a foreclosure strategy would increase share of supply. • Broadcom's rivals would be hampered in their ability to compete effectively for part of the market. • Broadcom's rivals would invest less which would allow Broadcom to maintain and/or strengthen its dominant position.	• Share of supply in I/O hardware. • Magnitude of the affected market, and potential reduction in rivals' sales. • Broadcom's internal documents. • Third party views (interviews of rivals, market test) on ability and incentive to invest.
Condition (d). Are there material efficiencies or other countervailing elements? **NOT CONSIDERED (EC and CMA)**	• N/A	• N/A

"Ecosystem" theory of harm[49]

The theory of harm

3.18 The theory of harm applied in Booking/eTraveli in 2024[50] has been referred to as an "ecosystem" theory of harm. The focus is on the strengthening of a dominant firm's position (here, Booking) through the acquisition of a target in a complementary market (here, eTraveli). As the EC's decision in that merger (in this subsection referred to as the "**Decision**") notes: "*this* [decision] *assesses the extent to which, through the acquisition of* [eTraveli]*'s flight OTA capabilities in the EEA, the Transaction would further strengthen Booking's market position in the EEA for the provision of hotel OTA services*."[51]

Framework

3.19 The Decision is currently under appeal before the General Court, including with respect to the legal validity of the theory of harm itself.[52] Nevertheless, it provides a framework worth examining, even if the EC may later refine it following the judgement. This framework is set out in Section 6.1 of the Decision.

3.20 In summary, three cumulative conditions appear necessary:

a) **Dominance**: the acquirer is dominant in one market. The theory concerns the "*strengthening of a dominant position.*" The Decision repeatedly stresses that: "*Indeed, both the Horizontal and non-Horizontal merger guidelines foresee that significant impediment of competition may be the result of the creation or strengthening of a dominant position*."[53] The Decision cites paragraph 36 of the EC Horizontal Merger Guidelines and paragraph 49 of the EC Non-Horizontal Merger Guidelines.[54] It appears to suggest that any degree of strengthening of dominance is concerning – a point we discuss further below.

b) **Transmission mechanism**: the target operates in a distinct, complementary market, and the transaction creates or reinforces a transmission mechanism through which the target's presence strengthens the acquirer's dominance. The mechanism at issue is essentially one-stop shopping: by integrating flights OTA (eTraveli) and hotels OTA (Booking), consumers booking flights through eTraveli are more likely to

[49] This subsection focuses on the so-called "ecosystem" theory of harm in digital markets, which fall within Topic E of the Consultation. This theory of harm feeds into the reply to question E.9, on the competition risks of non-horizontal mergers linked to having a broad range of products or services that are interrelated or part of an "ecosystem". As requested in the Consultation, this section outlines these theories of harm, discusses their merits and proposes an analytical framework for their assessment and the relevant evidence to consider.
[50] See footnote 37. They were also pursued in Google/Photomath but the decision does not add much more flavour to the discussion; and seems to have been relevant in Amazon/iRobot but no decision is available to capture the EC's thinking, as the deal was abandoned.
[51] Decision, para. 187. Note: the decision references the "SO" but this is clearly a typo: it should say "decision".
[52] European Court of Justice, case T-1139/23 - Booking Holdings v Commission. The appeal focuses on the alleged departure by the EC from its Non-Horizontal Merger Guidelines, and in particular from the ability-incentive-effects framework used to analyse foreclosure, and on the validity for this alleged departure.
[53] Decision, para. 192.
[54] "*Some proposed mergers would, if allowed to proceed, significantly impede effective competition by leaving the merged firm in a position where it would have the ability and incentive to make the expansion of smaller firms and potential competitors more difficult or otherwise restrict the ability of rival firms to compete. In such a case, competitors may not, either individually or in the aggregate, be in a position to constrain the merged entity to such a degree that it would not increase prices or take other actions detrimental to competition*" EC Horizontal Merger Guidelines, para. 36; "*Effective competition on the downstream market may be significantly impeded by raising barriers to entry*", EC Non-Horizontal Merger Guidelines, para. 49.

book hotels via Booking.[55] This convenience effect may be reinforced by consumer inertia, as the EC suggests.[56]

c) **Hampering**: this mechanism "*hampers*" the ability of the acquirer's rivals to compete in the market where the acquirer is dominant. The Decision explains that such "*hampering*" constitutes a form of foreclosure and suffices to establish a strengthening of dominance – a point we discuss further below.

Limiting principles

3.21 As noted, the Decision is under challenge before the General Court, which will ultimately assess its legal soundness. From an economic standpoint, however, this theory of harm requires stringent conditions before it could genuinely harm consumers. As such, any discussion of this theory of harm in the new Guidelines should articulate clear limiting principles and safe harbours, to prevent overbroad application to conglomerate transactions that are unlikely to harm competition and may in fact deliver significant efficiencies and consumer benefits.

3.22 Two observations are central:

a) **An efficiency offence**, – i.e., the concern that the merger could make the merged entity too efficient (here, consumers stand to benefit from one-stop-shopping and lower prices) and consequently threaten ability and incentive of rivals to compete. The evidentiary threshold for harm should therefore be set high.

b) **A weak form of conglomerate leverage**. This is essentially a traditional one-stop-shopping conglomerate theory of harm, with limited market power in the leveraging market and no foreclosure (in the classic sense of rivals exiting or being marginalised) in the leveraged market. Under such circumstances, conglomerate theories of harm are unlikely to be problematic – i.e., consumers that prefer to book hotels and flights from the merged entity will be better off because of lower shopping costs; consumers that prefer to book hotels and flights separately from different suppliers can still do so, since no rival is marginalized. The Decision does not dispute that. Instead, concerns derive from dominance in the leveraged market: the strengthening of Booking's dominance is viewed as problematic, even when rivals neither leave the market nor are marginalized.[57]

3.23 Taken together, these factors suggest that the EC should apply this theory of harm with caution. For it to be genuinely harmful, the merger-specific reinforcement of the dominant position must be substantial/strong enough to outweigh efficiencies generated.

3.24 This raises important questions about limiting principles, which the revised Guidelines should clarity.

a) **Is any increase in dominance automatically harmful?** In other words, does the EC interpret paragraph 36 of the EC Horizontal Merger Guidelines and paragraph 49 of the EC Non-Horizontal Merger Guidelines as meaning that any increase in dominance is harmful once dominance is established? We would caution against such an approach. Harm should arise only where the merger appreciably increases dominance such it has a significant impact on competition. If any strengthening suffices, nearly every conglomerate

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[55] For instance, see Decision, para. 1139.
[56] The EC rejects the efficiency arguments and states that the transmission mechanism is only based on inertia: "*the Commission found that the growth of Booking post-Transaction will be largely due to Booking's existing brand strength end-customer inertia rather than competition on the merit*." Decision, para. 209.
[57] "[T]*he Transaction will result in an increase in barriers to entry and expansion into the hotel OTA market and, as result, that the dominant position of Booking on the market for the supply of hotel OTA services would become even less contestable than it is today*." Decision, para. 917

deal involving a dominant firm could be questioned, despite such deals often being benign or welfare-enhancing.

b) **How do dominance, target presence, and the transmission mechanism interact?** The weaker the target's presence in the leveraging market, and the weaker the transmission mechanism, the less significant the effect on the acquirer's dominance; in such cases, only very strong pre-existing dominance could make the transaction concerning. The revised Guidelines could provide safe harbours around the levels of dominance and target presence. Serial acquisitions may also be relevant: while a single transaction may not, on its own, lead to foreclosure (understood as market exit or marginalization), the cumulative effect of multiple acquisitions could do so.[58]

c) **Under what conditions is harm more likely?** Much depends on whether the acquisition reinforces network effects. This requires assessing the additional value brought by new users, which may diminish if the platform is already large (declining returns to network effects). Where a buyer can leverage its multi-product ecosystem to strengthen network effects, a merger can raise barriers to entry. Conversely, if a platform already has a large user base before a merger, the network effects generated by the marginal user may be limited. If so, additional users gained through the merger may not significantly raise entry barriers. It is essential to identify what is uniquely valuable in the target, such that it strengthens the acquirer's capabilities in ways rivals could not replicate.

d) **How should anti-competitive risks be balanced against efficiencies?** To the extent that there are efficiencies – as in Booking/eTraveli (one-stop shopping costs), guidance would be helpful on how these are offset in both the short- and long-term (see also next section).

[58] For a discussion on serial acquisitions, see: OECD. “Serial Acquisitions and Industry Roll-ups”, *OECD Competition Policy Roundtable Background Note*, 2023.

4. Revise the guidelines on efficiencies

4.1 This section focuses on the assessment of efficiencies, which falls within **Topic F** of the Consultation. It does not intend to discuss details of the current assessment framework (i.e., efficiencies have to be verifiable, merger specific and benefit consumers).[59] It rather takes a step back and provides an economic perspective on the assessment of efficiencies in mergers, especially in fast-evolving markets. As such, it does not feed directly into any of the specific questions on **Topic F**, but rather provides recommendations at a more general level.

4.2 Mergers can lead to significant efficiencies, but in practice, they are rarely taken into account.

4.3 We believe this is primarily due to four shortcomings in the assessment of efficiencies:

a) Asymmetry in the standard of proof;

b) The balancing of pro- and anti- competitive effects;

c) The inadmissibility of out-of-market efficiencies; and

d) The assessment of merger specificity.

4.4 We would welcome seeing these issues addressed in the revised Guidelines.

a) Asymmetry in the standard of proof

4.5 The inherent difficulty and uncertainty in assessing dynamic competition in dynamic markets – and the corresponding risk of error – have created a growing asymmetry in the standard of proof (or at least the perception of one) between efficiencies as countervailing elements to a lessening of competition.

4.6 In practice, this makes it harder for the merging parties to meet the required standard of proof for efficiency claims because predicting market evolution is very difficult. The very same uncertainty should, logically, make it harder to prove anti-competitive effects. Still, agencies are comfortable enforcing even with significant uncertainty as to anti-competitive effects but seem to require certainty about efficiencies. Further, in the few instances in which pro-competitive effects can be evidenced at the standard required, they may fuel efficiency offence theory of harm, e.g., horizontal-like concerns such as an "ecosystem" theory of harm.[60]

4.7 The risk with an asymmetric standard of proof is that one may forego possibly sizeable efficiencies in order to address a marginal risk that rivals may be unable to attain similar efficiencies and compete and that this would be cause detriment to consumers. The revised Guidelines should restore symmetry in the assessment of pro- and anti-competitive effects of mergers.

b) Balancing of pro-and anti-competitive effects

4.8 A merger might have mixed pro- and anti-competitive effects when short-term static effects, such as price increases, point in one direction while longer-term dynamic effects, such as gains in innovation, point in the other. For example, a merger might lead to higher prices on current products but increase innovation. To balance these effects, the central question is, in principle, whether a merger increases or reduces consumer welfare

[59] EC Horizontal Merger Guidelines, para. 78.
[60] See para. 3.22a).

relative to the no-merger counterfactual. In practice, determining the net effect on welfare can be challenging. The balance of probability test requires showing that it is more likely than not that a merger will result in a significant impediment to effective competition. This does not properly capture the effects of mergers on customer welfare. We recommend that the revised Guidelines factor in the competitive assessment not only the likelihood that static and dynamic effects will materialize but also their relative magnitude, and the timeframe over which they materialize.

4.9 In practice, this means giving greater weight to dynamic considerations in industries where innovation is the primary driver of competition, while placing more emphasis on static effects in more mature sectors, where they better capture the relevant competitive forces. Where mergers are cleared on the grounds of dynamic benefits against static concerns (e.g., greater innovation but a residual customer segment still relying on the old technology), behavioural remedies can be effective tools to address the static concerns, while preserving the benefits of the transaction.

c) Inadmissibility of out-of-market efficiencies

4.10 The current Guidelines establish that the efficiencies and consumer benefits may only offset anticompetitive effects in the same relevant market. However, efficiencies in digital markets often arise in different product markets than those where concerns may arise – e.g., in dynamic industries they may arise in relation to new products for which a market does not yet exist. In such circumstances, ignoring out-of-market efficiencies would be inconsistent with an analysis that contemplates harm in markets which do not yet exist (e.g. innovation theories of harm).

4.11 We believe the revised Guidelines should allow out-of-market efficiencies to be accounted for, possibly under specific conditions. We note that allowing out-of-market efficiencies would bring merger control more closely aligned with the broader industrial policy objective of competitiveness.

d) Merger specificity

4.12 Even where efficiencies are demonstrated, they may be dismissed for lack of merger specificity. In practice, the threshold for such dismissal is currently too low, as it does not currently need to be the case that same efficiencies are *likely* to arise absent the merger.

4.13 At the very least, the assessment of merger specificity should be consistent with the assessment of the no-merger counterfactual. If the EC believes that an efficiency is not merger-specific, then it should follow that the counterfactual against which it is assessing the merger is one in which that efficiency arises through another means. If there is insufficient evidence that the efficiency would arise in the counterfactual, it should not be dismissed on the merger-specificity limb. Alternative means of achieving efficiencies that appear plausible in theory may well fail in practice.

5. Add clarity to the guidelines on how sustainability will be taken into account

5.1 This section examines the role of sustainability in merger assessments, falling under **Topic D** of the Consultation.

5.2 Although sustainability is already protected by regulation in certain sectors, in principle, merger control could also contribute to protect or promote it. There is therefore a question as to whether merger control should only account for it whenever it constitutes an important parameter of competition or it should aim to pursue sustainability as an independent policy objective through its merger control tools – and in the case of the former, how it should be assessed, as per questions D.3, D.4 or D.5.

5.3 Our view is that sustainability should be considered within a merger investigation when there is (or will be) demonstrable demand for sustainable products. In such cases, sustainability operates as a non-price parameter of competition either now or in the future, akin to quality: mergers may either enhance or diminish it. Any reduction or improvement in sustainability would then be treated as a corresponding reduction or improvement in quality.

5.4 The existing Guidelines state that the EC is not only concerned about higher prices, but also lower prices, choice, quality of goods or services, innovation and other parameters of competition.[61] Sustainability could be interpreted as one element of quality. However, one needs to take particular care when assessing the value consumers attach to sustainability and whether there is (or will be) demand for sustainable products, because traditional analytical methods are likely to understate it:

- Willingness-to-pay estimated using revealed-preference methods or standard stated-preference methods are likely understate its significance.
- This is because sustainability frequently delivers societal and intergenerational benefits, rather than immediate personal gains, meaning mergers involving sustainable products can have broader impacts than standard willingness-to-pay estimates suggest.
- Outside regulated sectors (e.g., energy labels, vehicle emissions), reliable information on the sustainability of products is limited and often distorted by greenwashing, while consumers' valuation of sustainability is highly context-dependent, e.g., rising when they believe others value it too.

5.5 To measure the importance of sustainability to consumers, we therefore recommend the use of consumer surveys specifically designed and implemented for this purpose. For example, surveys need to be conducted in-person to both to ensure that interviewers and respondents fully comprehend the future implications on sustainability of the different hypothetical scenarios thereby minimising bias. In addition, surveys need to include both current consumers of the non-sustainable products as well as potential consumers of the sustainable alternatives and the respondents need to be given choices that vary depending on the choices of others.

5.6 We do not consider that sustainability should be pursued as an independent policy objective, i.e., when there is no current and foreseeable future demonstrable demand for sustainable products. While the current merger review framework may fail to capture the broader environmental externalities of a merger when consumers lack

[61] See footnote 19.

sustainability preferences or when consumers have preferences that actually diverge from sustainability objectives (e.g., they value certain features that are harmful to the environment), we remain sceptical of extending the EC's merger policy objectives to include a specific sustainability mandate. The separation between regulation driving sustainability objectives and merger control protecting competition offers clear advantages: it avoids forcing trade-offs between competition policy and sustainability goals where they are misaligned. Moreover, as regulatory frameworks mature, tensions between consumer welfare principles and the environmental externalities of mergers could gradually diminish.

6. Revise the guidelines to recognise effects in labour markets

6.1 This section examines the impact of mergers in labour markets, falling under **Topic G** of the Consultation.[62]

6.2 We welcome the Consultation's focus on this area. The current Guidelines do not explicitly address labour market effects of mergers and provide limited guidance on assessment. We are of the view that the revised Guidelines should confirm that protecting rivalry in labour markets is an objective consistent with protecting consumers; but should also clarify that specific attention to labour markets may only be required in a limited set of circumstances and as such provide safe harbours.

6.3 Mergers can reduce workers' wages[63] and worsen their working conditions. These can happen in two main ways: (i) post-merger rationalisations and layoffs; and (ii) the removal of rivalry between the merging firms.

6.4 As regard the first effect, this is an efficiency, not an adverse effect. Eliminating duplicative roles (e.g., senior management positions) does not reflect reduced rivalry; if such adjustments were treated as anticompetitive, almost every merger would be problematic.

6.5 As regard the second effect, it is important to note that a reduction of competition in labour markets is not always mirrored by a reduction of competition in the product market.[64] As such looking at labour market competition is not redundant. In conducting the assessment, the EC should follow principles analogous to traditional horizontal analysis (albeit reversing buyers and sellers).

6.6 We only highlight a few aspects that are worthy of attention relative to:

a) Local product markets;

b) Wider geographic markets;

c) No overlaps in the product market;

d) Market definition and horizontal overlaps;

e) Market shares;

f) Reduction of labour cost as an efficiency; and

g) Remedies.

[62] This section provides an overview of the effects in labour markets of horizontal mergers, and how they should be assessed, which falls under Topic G of the Consultation. In particular, this section feeds into questions G.11 to G.13, on whether and how the revised Guidelines should reflect the assessment of a merger on labour markets.
[63] See Elena Prager and Matt Schmitt. "Employer Consolidation and Wages: Evidence from Hospitals." *American Economic Review*, vol. 111, no. 2, 2021, pp. 397-427; and David Arnold. "Mergers and Acquisitions, Local Labor Market Concentration, and Worker Outcomes." Working Paper (Revise and Resubmit, *American Economic Review*), 2021, for empirical evidence suggesting a negative correlation between merger-induced changes in labour market concentration and wages.
[64] See, e.g., Ioana Marinescu and Herbert J. Hovenkamp. "Anticompetitive Mergers in Labor Markets." *Indiana Law Journal*, vol. 94, no. 4, 2019, pp. 1031-1063.

a) Local product markets

6.7 Where competition on the product side is local (e.g., groceries, fuel stations, retail), the parties may overlap in a series of local areas both on the product and on the labour market. In these cases, merger enforcement on the product side alone likely protects workers too.[65] This is because local labour markets are typically at least as broad as local output markets: commuting zones for workers often extend farther than consumer catchment areas and encompass employers beyond the suppliers of substitutable products. Structural remedies addressing product market concerns would likely also address labour market effects. Behavioural remedies, instead, may need adjustment to safeguard workers but these are less common in local markets.

6.8 It follows that the assessment of labour market effects should probably be deprioritised when product competition is local. There can be exceptions in special circumstances. For example, in Kroger/Albertsons the US Federal Trade Commission's ("**FTC**") concerns emerged because of specific features of that market: the merging parties had a combined share of union grocery labour exceeding 65% in many local collective bargaining agreement areas, and the proposed transaction would have been a merger to monopsony in some of these areas.[66] Alternatively, if only a small number of employers have "active" job postings over long periods, so the labour market may be less competitive than the product market (see below). But, otherwise, it should be deprioritised.

b) Wider geographic markets

6.9 Where the parties serve customers from centralised sites (e.g., offices, production facilities) rather than local outlets, there may be little or no overlap in labour markets, unless the parties' premises are in the same areas. However, mergers between firms in the same industrial district (i.e., a geographical area with a concentration of suppliers of similar products) can generate significant overlaps on the labour side. Overlaps can also arise for some categories of workers, particularly skilled employees willing to relocate. For these workers, the relevant labour market may extend beyond local commuting zones.

6.10 The assessment should therefore focus on such groups and the range of alternative employers available to them. Still, even in these cases, product market enforcement may protect labour competition, since firms competing in the relevant product market often also act as alternative employers within the broader relocation area. It follows that labour market effects should probably be more closely examined where (i) closely mergers involve firms active in the same industrial district; or (ii) there is a group of highly specialised workers operating in a nationwide/international labour market that have few alternative employers.

c) No overlaps in the product market

6.11 Transactions between firms supplying non-substitutable products may still create horizontal overlaps in labour markets if both parties employ workers with similar skills. In such cases, the merger could reduce competition for labour. However, these transactions raise the issue of whether the EC should seek to assert jurisdiction. A key consideration is whether the potential harm in labour markets justifies the costs of proceedings. Simple remedies (discussed below) offered very soon in the proceedings may provide a pragmatic way forward.

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[65] In this context, the dearth of merger challenges based explicitly on labour market concerns may reflect the fact that such mergers often also raise concerns in product markets (Randy M. Stutz. "The Evolving Antitrust Treatment of Labor-Market Restraints: From Theory to Practice.", *American Antitrust Institute*, 2018).
[66] FTC, *Administrative Complaint, In the Matter of The Kroger Company and Albertsons Companies, Inc.*, Docket No. D-9428, February 26, 2024, p. 16.

However, where overlaps concern highly skilled workers of strategic importance, they may signal similarity in firms' capabilities and thus raise concerns about dynamic effects, which may warrant review.

d) Market definition and horizontal overlaps

6.12 The SSNIP test can be turned into a small but significant reduction in wages – or deterioration of employment terms. The labour "product" market comprises all closely substitutable types of employment (in response to such modified SSNIP); and the geographic market the area within which workers are willing to commute to find another employment in response to the modified SSNIP (i.e., a catchment area around the office address for most workers, who do not contemplate nation-wide or even international relocations).

6.13 In practice, firms employ workers across many labour markets – for instance, blue-collar workers, administrative staff, sales staff, or executives – with seniority also affecting segmentation. However, the relevant overlaps to examine may be very limited (as explained above).

e) Market shares can be calculated based on different metrics

6.14 In Kroger/Albertsons the FTC calculated market shares based on the share of union grocery labour employed by each firm. Some empirical literature emphasizes the relevance of restricting analysis to "active" employers, defined as firms posting vacancies within a given period.[67] This approach has the advantage of reflecting the options actually available to workers at a point in time, but the choice of the period and its length can be arbitrary (some authors generally consider the average job search duration in the area, but it is but one of many possible approaches).[68] Also, reliance on vacancy data may understate overlaps if one party has not posted openings during the reference period.

f) Reduction of labour cost as an efficiency

6.15 Under some circumstances, reductions in labour costs may be passed on to consumers in the form of price reductions. However, we do not believe that these should be advanced as merger efficiencies. Viewing labour cost reductions resulting from unilateral effects as an efficiency reflects a narrow interpretation of the consumer welfare standard which we believe is shortsighted: any reduction in *rivalry* creates inefficiencies, whether in output or labour markets; combining two inefficiencies does not yield efficiency. Labour markets influence the formation and accumulation of human capital, a key driver of growth and innovation, with effects extending well beyond wages and production costs. There is ample literature finding economic and legal support for intervention in labour markets.[69] The case for EC intervention in labour markets also aligns with the EC's

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[67] For empirical studies that compute labour market concentration using online job vacancy data and examine its correlation with wages, see José Azar *et al*. "Concentration in US labor markets: Evidence from online vacancy data." *Labour Economics*, vol. 66, 2020; and José Azar *et al*. "Labor Market Concentration." *The Journal of Human Resources*, vol. 57(S), 2022, pp. S167-S199.

[68] For example, José Azar *et al.*, 2020; José Azar *et al.*, 2022; and Ioana Marinescu and Eric A. Posner. "Why Has Antitrust Law Failed Workers?" *Cornell Law Review*, vol. 105, no. 5, 2020, pp. 1343-1394, calculate the Herfindahl-Hirschmann Index ("HHI") of labour markets at the quarterly level, since, according to the U.S. Bureau of Labor Statistics the median duration of unemployment in 2016 was approximately 10 weeks.

[69] Some scholars advocate for the consideration of the "worker welfare" standard in antitrust analysis (Clayton J. Masterman. "The Customer Is Not Always Right: Balancing Worker and Customer Welfare in Antitrust Law." *Vanderbilt Law Review*, vol. 69, no. 5, 2016, pp. 1387-1422; and Suresh Naidu *et al*. "Antitrust Remedies for Labor Market Power." *Harvard Law Review*, vol. 132, no. 2, 2018, pp. 536-601), or the adoption of a broader "trading partner welfare" standard (C. Scott Hemphill and Nancy L. Rose. "Mergers that Harm Sellers." *Yale Law Journal*, vol. 127, no. 7, 2018, pp. 2078-2109) that explicitly includes the protection of workers. In these authors' views, this would expand the hyper-literal interpretation of the "consumer welfare" standard, which ultimately limits its protection to end consumers.

enforcement against employer non-compete agreements under Article 101 of the Treaty on the Functioning of the European Union.[70]

g) Remedies

6.16 Structural remedies in product markets may also address labour market concerns, given the overlap in geographic scope between output and employment markets. By contrast, behavioural remedies are difficult to design in the labour context, as they would require constraining the merged entity to maintain pre-merger career opportunities and employment conditions. Where the parties operate across many local areas, committing to enforcing common contractual terms across all areas or benchmarking the terms in problematic areas with the terms in non-problematic areas may allay such concerns.

[70] EC, case AT.40795 – Food delivery services, decision of 2 June 2025.

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