Unclassified English - Or. English

28 April 2025

DIRECTORATE FOR FINANCIAL AND ENTERPRISE AFFAIRS
COMPETITION COMMITTEE

Working Party No. 3 on Co-operation and Enforcement

Efficiencies in Merger control – Background Note

– By the Secretariat –

17 June 2025

This document was prepared by the OECD Secretariat to serve as background material for Item 2 at the 141st meeting of Working Party 3 on Co-operation and Enforcement to be held on 17 June 2025.

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JT03565178

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Efficiencies in merger control

Mergers are a pivotal force in the economy, enabling companies to expand and thrive. Mergers may reduce competition, but they can also generate benefits, some in the shape of efficiencies. These efficiencies can result in cost savings, improved products and enhanced services, which can be passed on to consumers or other agents in the economy. This paper explores the different approaches and developments in considering efficiencies in merger control, including the types of efficiencies considered and the criteria to assess them. It presents possible reasons why efficiencies as a defence or rebuttal in mergers remain rare, as is their acceptance by competition authorities and courts. It also discusses whether there is room for more consideration from competition authorities and courts and raises some relevant questions for future discussions.

Keywords: Mergers, Efficiencies, Efficiency Defence, Costs, Welfare, Economic Policies

JEL codes: D61, G34, K21, L4

Acknowledgements

1. This paper was prepared by Aura García Pabón from the OECD Competition Division with research assistance from Diana Cintora. The paper benefited from comments by Ori Schwartz, Antonio Capobianco, Federica Maiorano and Beatriz Marques from the OECD Competition Division. It was prepared as a background paper for the discussion on “Efficiencies in Merger Control” taking place at the 141st meeting of Working Party 3 on Co-operation and Enforcement.

Executive Summary

2. Mergers are a pivotal force in the economy, enabling companies to expand and thrive. Mergers may reduce competition, but they may also generate benefits, some in the shape of efficiencies. These efficiencies, such as parties reaching economies of scope or scale, or eliminating information asymmetries and externalities, can result in cost savings, improved products, and enhanced services, which can be passed on to consumers or other agents in the economy. Competition authorities and courts recognise this and, therefore, intervene only in transactions where the reduction in competition is likely to be substantial. When they impose or accept remedies to authorise a merger, they aim at preserving said efficiencies to the greatest extent possible. Moreover, most merger regimes contain provisions allowing competition authorities and/or courts to consider efficiencies in the assessment of mergers, either within their competition assessment or as a separate analysis of a defence or rebuttal.

3. Though most merger regimes are open to considering efficiencies in the assessment of mergers, efficiencies that prevail as a defence or rebuttal are rare, and so is their acceptance by competition authorities or courts. What are the possible reasons for this? Should this remain as such? Is there room to consider other economic policies within the analysis of efficiencies in merger control?

4. This paper provides an overview of how competition authorities and courts currently assess efficiencies, including what, when and how they are reviewed, as well as the evidence that authorities value the most. It discusses the main reasons why efficiencies as a defence remain rare, particularly in horizontal mergers, and whether there is room for competition authorities and courts to consider them more. Particularly, the paper reviews ongoing discussions about whether efficiency analysis could help consider other public interests, like green technology transitions, protecting national industries, and fostering innovation. The discussions include how the efficiency analysis might also be a useful tool for competition policy to support industrial and innovation strategies. The paper concludes that:

- While competition authorities and courts have different approaches towards efficiencies, influenced by their legal frameworks and experiences, practices seem to be aligned.
- When efficiencies form part of the assessment, they almost never are the most relevant argument for a merger decision. Reasons why this happens are multiple, including practical complexities in gathering evidence to substantiate them; proving merger-specificity, and demonstrating that the efficiencies will be passed on to consumers when required.
- All the practical complexities to substantiate an efficiency claim co-exist in a world where there is evidence ex-post that efficiencies from mergers that substantially reduce competition are limited, short in duration or do not end up occurring, and academic studies that conclude that efficiencies tend not to materialise in highly concentrated markets, which is precisely where they could make more of a difference in the authority's decision.
- While the debate continues concerning whether to consider other public interests in evaluating a merger's benefits to consumers and the economy, it appears that the type of transactions, tests and standards used to evaluate efficiency claims should remain unchanged. This would keep efficiencies still as the exception rather than the rule.

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1. Introduction

5. Companies merge with each other or acquire other companies for a variety of reasons. From managing uncertainty, to gaining scale or access to new resources, mergers and acquisitions provide companies the opportunity to grow, increase profits and, why not, strengthen their market power. While it is well-recognised that mergers and acquisitions may have benefits such as expanding markets and creating efficiencies for the parties, by definition, some mergers tend to reduce competition. This happens because certain mergers and acquisitions, such as horizontal mergers, reduce the number of active players in the market or change the merging firms' ability or incentives to compete. Therefore, effective merger control is needed to ensure that mergers do not harm competition. This is why in all merger regimes, transactions that have significant anticompetitive effects are challenged or prohibited, particularly if no suitable remedies are available to remove the harm. In most regimes, however, mergers that harm competition may be permitted if they also result in improvements in efficiency that counteract the anticompetitive effects of the transaction. Given that merger control is most often ex ante, it is important to note that it has a forward-looking nature, meaning that some of the positive or negative effects from the transaction cannot be observed and are uncertain at the time of the authority's decision. The degree of uncertainty varies according to the characteristics of each transaction, but it does not by itself reduce the likelihood that a merger could give rise to certain effects.

6. Mergers can produce significant efficiencies for the merged firm, which can enhance its potential performance. These efficiencies may, on certain occasions, benefit the market, for instance by enhancing productivity and innovation. They may counteract the potential anticompetitive effects of the merger and can potentially be passed on to consumers. While the conditions for assessing efficiencies may differ across jurisdictions, this principle on why efficiencies should be taken into account remains the same. This paper will focus on efficiencies arguments that are brought by parties and analysed by competition authorities and/or courts to demonstrate that a proposed merger would give rise to benefits that offset any competition concerns identified. It will not focus on implicitly assumed efficiencies that any merger may bring to the parties.

7. While most merger regimes contain provisions allowing competition authorities and/or courts to consider efficiencies in the assessment of mergers, efficiencies that prevail as a defence or rebuttal are rare in practice, as is their acceptance by competition authorities or courts. Only in very few situations, efficiencies are a relevant argument within the decision-making process of the authority, although they may feature as part of the authority's assessment of the effects of the transaction. In cases where efficiencies have been accepted, they usually are considered together with other arguments, meaning that they may not really be the main reason for the authority's decision.

8. Over the past years, the OECD discussed topics related to efficiencies in merger control. These include Dynamic Efficiencies in Merger Analysis (2008[1]), The Role of Efficiency Claims in Antitrust Proceedings (2013[2]), Environmental Considerations in Competition Enforcement (2021[3]), Advantages and Disadvantages of Competition Welfare Standards (2023[4]), Out-of-Market Efficiencies in Competition Enforcement (2023[5]), The Standard and Burden of Proof in Competition Law Cases (2024[6]), and The Use of Structural Presumptions in Antitrust (2024[7]).

9. This paper will provide an overview of how competition authorities and courts currently assess efficiencies, highlight recent developments in this area, and discuss the current state of the debate on

considering broader efficiencies to allow for other public or economic interests. It focuses on horizontal mergers, although most of the aspects discussed may also apply to non-horizontal transactions. In its second section, the paper will describe the different approaches to assess efficiencies, covering aspects such as the type of efficiencies that are considered, relevant criteria for their assessment, evidence and burden of proof. The third section of the paper will examine the main reasons why efficiencies remain rare in merger decisions and discuss whether there is room for competition authorities or courts to consider them more, including by taking into account non-competition considerations. Finally, the fourth section will present some conclusions and raise some questions for future discussions.

10. As will be shown, competition authorities and courts have different approaches towards efficiencies, influenced by their legal frameworks and experiences. This includes the type of efficiencies considered, their relative importance, the stage at which they are evaluated during the merger review process, the criteria used to assess the types of evidence deemed useful, and their overall relevance in the authority's decision-making process.

11. The results, however, seem to be aligned. When efficiencies form part of the assessment, they almost never are the most relevant argument for a merger decision. Reasons why this happens are multiple, including practical complexities in gathering evidence to substantiate them; proving merger-specificity, and demonstrating that the efficiencies will be passed on to consumers when required. All these complexities co-exist in a world where there is evidence ex-post that efficiencies from mergers are limited, short in duration or do not end up occurring, and academic studies that conclude that efficiencies tend not to materialise in highly concentrated markets, which is precisely where they could make more of a difference in the authority's decision.

12. There are ongoing discussions about whether efficiency analysis could accommodate other public interests, like clean technology transitions, protecting national industries, and fostering innovation. The discussions include how the efficiency analysis might also be a useful tool for competition policy to support other policies, such as industrial and innovation strategies. Simultaneously, higher levels of concentration in many industries seem to be a call for a more cautious enforcement of merger control that leaves less room for speculative claims of efficiencies.

13. While the debate on whether to consider other public interests in evaluating a merger's benefits to consumers and the economy continues, it appears that the type of transactions, tests and standards used to evaluate efficiency claims should remain unchanged. This would likely keep the efficiency defence still as the exception rather than the rule.

2. Approaches to assess efficiencies

14. There is a wide consensus among antitrust scholars and practitioners that one of the prime objectives of competition law should be to promote economic efficiency. However, efficiency can mean different things to different people, and certainly in different legal frameworks across jurisdictions.

15. Efficiencies in mergers may be understood as synergies arising from a transaction that enable firms to improve their performance, whether in terms of cost, quality, service, innovation or product development (OECD, 2008[1]).

16. This section will discuss first some relevant issues around evidence, standard and burden of proof. Then, it will discuss the types of efficiencies and when they are considered in the review of mergers. After, it will describe the different approaches that competition authorities and courts follow to assess them. It will present some examples of transactions where competition authorities and courts have assessed efficiencies, with a focus on the type of considerations made and the evidence used to reach conclusions. The examples highlight recognised and rejected efficiency claims, offering insights into authorities' analyses.

2.1. What and when: What types of efficiencies and when are they considered?

2.1.1. What types of efficiencies are considered?

17. When competition authorities and courts review a merger, they do so under the assumption that companies engage in mergers or acquisitions to achieve specific benefits. They generate value for merging parties either through efficiency gains or through an increase in their market power, both ways impacting competition in different ways. Therefore, competition authorities and courts intervene where there are potential concerns about the transaction harming competition and allow the materialisation of said benefits in all other cases. These benefits may include financial gains, tax savings, and cost reductions, among others. While all of them bring gains to merging parties, only a subset of them may be considered as an efficiency.

18. The type of efficiencies usually considered in the assessment of mergers includes productive and allocative efficiencies, which tend to be evaluated from a static perspective, and dynamic efficiencies. These have been described multiple times in past OECD work (OECD, 1995[8]; 2008[1]; 2013[2]; 2023[5]). This framework originates from Williamson's theoretical work on efficiencies (1968[9]) as pro-competitive factors in merger analysis under a total welfare approach and has evolved to account for developments in economic analysis (e.g. to consider dynamic efficiencies or non-price considerations) (Kwoka, 2015[10]). This framework remains well-accepted by competition authorities and courts even in cases where pass-on to consumers is required.

19. Productive efficiencies refer to cost savings that allow firms to produce more output, or with higher quality, from the same amount of input. Economists understand productive efficiencies as situations allowing firms to operate closer to the frontier of their production possibilities (Motta, 2004, p. 53[11]). They arise from companies producing at lower costs or with higher quality. Mergers may generate productive

efficiencies from the consolidation of assets, economies of scale and scope, optimisation of production processes, streamlining of operations and expansion of distribution networks.

20. Allocative efficiencies relate to the allocation and distribution of resources across society. A merger may generate allocative efficiencies when it leads to an assignment of resources that is closer to the point where the marginal cost of producing the last unit equals the value that consumers place on it. In other words, situations that allow for more gains from trade in a way that the aggregate social welfare increases. Allocative efficiencies arising from mergers are common in vertical transactions. For example, if the transaction reduces costs through the elimination of double marginalisation, bringing product quantities closer to the socially optimal level. Other sources of allocative efficiencies from mergers include the elimination or reduction of externalities, information asymmetries or solutions to holding-up problems[1] to increase incentives to invest.

21. Literature also identifies so-called transactional efficiencies that refer to lowering of costs of completing sales, purchases and other deals, for example by eliminating the need to negotiate contracts between themselves when the firms merge (OECD, 2008[1]). These efficiencies are usually facilitators of other types of efficiencies as they internalise transactions between the merging parties that could be costly and difficult to execute.

22. While static efficiencies enable improvements that occur only once, or in a defined number of times, dynamic efficiencies are understood as efficiencies that arise over time, potentially on a continuing basis. Dynamic efficiencies include changes in incentives or ability to innovate, learning by doing, and, in general, synergies that impact research and development. They allow companies to move their efficient frontier of production, and their time component means that it may be necessary to consider both the short and the long term to fully understand their magnitude and impact (Motta, 2004, p. 55[11]). Some examples of dynamic efficiencies in mergers include upgrading management, combining complementary assets, elimination of duplicative R&D, economies of scale and scope in R&D, joint exploitation of intellectual property, risk spreading and increased financial resources available for R&D, and more generally, increased incentives and/or ability to innovate.

23. Competition authorities and courts give different weights to efficiencies. Generally, efficiencies are either absent from the merger laws or mentioned only at high level, and merger guidelines are the ones containing explanations of the types of efficiencies that are most likely to be taken into account by the authority. In some cases, the weights are given on a case-by-case basis (e.g. New Zealand's authorisation guidelines[2]), while in others it seems to be more standardised depending on the type of efficiency (e.g. Chile's merger guidelines[3]). For example, many authorities agree that the later the efficiencies are expected to materialise, the less weight they are assigned.[4] Moreover, most competition authorities and courts do not consider as efficiencies any cost savings that result from an increase in market power or that do not enhance value creation. For instance, purely financial gains in the way of tax savings, which are considered pecuniary gains, do not classify as an efficiency. These merely represent a financial transfer between the merged company and the tax authority, resulting in a financial gain for the former. In turn, cost savings that allow the same amount of resources to be used to produce more may be conceived as an economic efficiency. Cost reductions that purely result from anti-competitive reductions in output are also not considered (European Commission, 2004[12]).[5] Another generalised preference is revealed towards efficiencies that are linked to prices. Competition authorities and courts tend to be more open to savings in variable rather than fixed costs. The more indirect the link between cost savings and prices, the more difficult it is for the claim to be successful (Nilausen, 2023[13]).

24. Incorporating efficiencies into merger reviews has proven to be difficult in practice, as there could be trade-offs between the different types of efficiencies and there are significant practical measurement challenges. As early as 1968 when Williamson established a framework for the analysis of efficiencies in mergers, he noted that increases in productive efficiency could compensate for a loss in allocative efficiency resulting from greater market power (Williamson, 1968[9]). There can also be industries where

dynamic efficiencies are big in magnitude. However, it is often the case that while these dynamic efficiencies can outweigh the potential anticompetitive effects of a merger, they also usually result in short-run reductions in allocative efficiency. For instance, as firms acquire a monopolist position, and thus charge prices above marginal cost, at least temporarily until other firms enter the market.

25. Issues such as managing uncertainty (e.g. on aspects such as costs, timing, likelihood and extent of commercial success of innovation, as well as future prices), determining applicable discount rates, measuring innovation and interpreting its impact on welfare illustrate the challenges in accounting for efficiencies. These challenges are greater when talking about dynamic efficiencies. While dynamic efficiencies could generally be substantial, they are less susceptible to measurement and verification.[6] It is important to note, however, that all these challenges also apply to considerations in determining the anticompetitive effects of the transaction. Ultimately, the uncertainties inherent in forward-looking assessments, such as those in merger reviews, apply to all aspects of the analysis. In 2023, the OECD Competition Committee discussed innovation considerations in competition enforcement, including in merger review, where it presented the well-known difficulties of measuring and accounting for innovation and strategies that competition authorities have followed to overcome them (OECD, 2023[14]). Although this has primarily been applied to the analysis of anti-competitive effects, the same strategies and limitations could be observed when assessing efficiencies.

26. As it will be seen through the note, there have been cases where efficiencies, including dynamic ones, have been recognised by competition authorities and courts and played a role in their decision. Although in theory efficiencies can occur as a result of different types of mergers and acquisitions, they have had a more prominent role in non-horizontal mergers. For example, the elimination of double marginalisation, which implies allocative and transactional efficiencies, is a crucial aspect that authorities in many jurisdictions have considered when evaluating vertical mergers.[7]

2.1.2. When during the merger review process are efficiencies considered?

27. Efficiency claims are usually more relevant in merger analysis at a late stage, when concerns that a transaction may be anticompetitive are raised. In some jurisdictions, their evaluation takes place earlier, as part of the competitive assessment to determine if the transaction raises competition concerns or not. This means that in practice competition authorities and courts look at them only to understand whether the claimed efficiencies counteract the harm in the market in which the lessening of competition occurs. This is mostly the case in jurisdictions with administrative merger regimes. For example, in the EU, according to the Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings, "*the Commission considers any substantiated efficiency claim in the* ***overall assessment*** *of the merger. It may decide that, as a consequence of the efficiencies that the merger brings about, there are no grounds for declaring the merger incompatible with the common market*" [emphasis added] (European Commission, 2004[12]). Similarly in the United Kingdom, the Competition and Markets Authority (CMA) considers efficiency claims when deciding whether a merger may be expected to result in a substantial lessening of competition, particularly examining whether these could prevent harm that might otherwise arise as a result of the merger.[8]

28. When efficiencies are recognised within the overall assessment, they are usually combined with other factors that help mitigate anticompetitive risks. In this sense, their role is to strengthen the conclusion that overall, the proposed transaction will not significantly impede effective competition and, therefore, may be cleared or not challenged. One relevant merger that illustrates the implications of this approach is Korsnäs/AD Cartonboard, where the European Commission (EC) recognised the efficiencies put forward by the parties, which included input and cost savings, as well as product and R&D improvements.[9] The EC concluded that these efficiencies did not sufficiently address the concerns but that, together with the fact that the extended portfolio of the merged entity would allow it to compete more effectively, allowed to reach a conclusion that it will not significantly impede effective competition, thus clearing the transaction.

29. In jurisdictions with prosecutorial systems, efficiencies are considered in a staged approach. First, when competition authorities decide whether to challenge a merger or authorise it in the case of voluntary regimes with authorisation procedures. Secondly, after a merger is determined to be anticompetitive. At this second stage, efficiencies are conceived as a rebuttal (i.e. as an element that can possibly offset the already-identified competition concerns) (ICN, 2018[15]). This implies a separate and independent assessment of benefits arising from efficiencies and a subsequent weighting of said benefits to conclude whether they are greater than the concerns identified.

30. This is the case in the United States. On one side, the competition agencies have indicated that assessing efficiencies is part of their overall integrated competitive effects analysis at the investigation stage (i.e. when deciding whether to challenge the merger), on the other, courts have considered that efficiencies can only be a rebuttal, if at all (see Box 1 for more details on the different approaches to efficiencies in the United States).

31. While the terms defence and rebuttal are usually used interchangeably, an efficiency rebuttal is specifically used to counter plaintiff's *prima facie* case and claims of anticompetitive effects, in contrast, the efficiency defence is a broader argument that the merger's benefits outweigh its potential harms. This means that a defence is a general claim of procompetitive justifications, and the rebuttal is specific to address the identified concerns. In this context, it appears that when efficiencies act as a rebuttal, they must specifically target the identified harm. In practice, however, there is little difference between using efficiencies to rebut a *prima facie* case or as an ultimate defence, as in both cases they are weighed against the evidence of anti-competitive harm. In both cases, they need to ensure that the lessening of competition is not substantial, a task that can be achieved alongside other countervailing factors (Shencoop and Harris, 2019[16]).

Box 1. The efficiency defence in the United States

In the United States, Section 7 of the Clayton Act prohibits mergers that may substantially lessen competition or tend to be a monopoly and makes no reference to efficiencies whatsoever.

The Supreme Court's *Brown Shoe* precedent plays a key role in analysing efficiencies.[1] In 1963, in a unanimous opinion, the Court took the position that not only efficiencies cannot be a defence, but also that they may serve as proof that the merger could put small rivals at a disadvantage. The Court established that cost savings would have allowed the merging firms to market their own brands at prices below those of competing independent retailers". In the Court's view, although "*Congress appreciated that occasional higher costs and prices might result from the maintenance of fragmented industries and markets*", it decided in "*favor of decentralization*" and, therefore, deemed the vertical integration illegal. This was reaffirmed in the 1963 *Philadelphia National Bank* and the 1967 *FTC v. Procter & Gamble Co.* decisions, with the Supreme Court supporting the general scepticism previously observed by different courts concerning the availability of the efficiencies defence overall.[2] Particularly, in the *FTC v. Procter & Gamble Co.* decision, the Supreme Court stated that "*possible economies cannot be used as a defense to illegality. Congress was aware that some mergers which lessen competition may also result in economies but struck the balance in favor of protecting competition*".

Despite this precedent, the United States antitrust agencies incorporated efficiencies in their guidance on the assessment of mergers, starting with the 1968 Merger Guidelines issued by the Department of Justice (DOJ). The agency acknowledged the possibility of considering that a merger may produce economies (i.e. improvements in efficiency) in exceptional circumstances and that this may justify the transaction.[3] In the later versions of the Merger Guidelines, the agencies have tended to consider efficiencies as part of the competitive effects assessment of transactions, indicating that they consider efficiencies when deciding whether to challenge a merger or not. More recently, the 2020 Vertical Merger Guidelines, now withdrawn and replaced by the 2023 Merger Guidelines, presented efficiencies in a more positive light, including a chapter on procompetitive effects that described thoroughly different

cognisable efficiencies that can arise from a vertical merger. The 2023 Merger Guidelines, in turn, explicitly highlight that the Supreme Court has declined to endorse an efficiency defence but nonetheless addresses efficiency rebuttals. The Guidelines reflect both agencies' approach to acknowledging the existence of efficiencies and considering them in their decisions.

A few lower court decisions have endorsed efficiency rebuttals, although in practice they rarely have been essential to the decision.[4] Importantly, in *U.S. v. Baker Hughes, Inc.*, the US Court of Appels for the District of Columbia Circuit established a phased burden-shifting framework where plaintiffs are first required to establish *prima facie* that the merger will result in anticompetitive effects, then the defendant must rebut the *prima facie* case and, last, the plaintiff must produce sufficient evidence to overcome a successful rebuttal. Within the elements for a rebuttal, efficiencies can be claimed.[5] Multiple lower court decisions have followed this phased approach, [6] though none have yet accepted the efficiencies as a standalone reason why a merger that generates anticompetitive effects does not violate Section 7 of the Clayton Act. Other courts have based their decisions on the Supreme Court's precedent to completely disregard efficiencies. These two approaches imply that lower court cases are split on their views about the possibility of evaluating efficiencies, with a conservative approach of always assessing them as rebuttals to *prima facie* cases. The most recent decision at the time of writing of this note where efficiencies played a key role was *New York v. Deutsche Telecom* (see subsection 2.2.2. on Verifiability).[7]

Notes: [1] Brown Shoe Co. v. US, 370 US 294 (1962); [2] US v. Philadelphia National Bank, 374 US 321 (1963); FTC v. Procter & Gamble Co, 386 US 568 (1967); [3] (Rose, 2020[13]) presents a table summarising the evolution of treatment of efficiencies in different versions of the US Merger Guidelines; [4] See for example FTC v. University Health Inc. in 1991, which was based in the 1982 Merger Guidelines (Rose, N. (2020), "The Dichotomous Treatment of Efficiencies in Horizontal Mergers: Too Much? Too Little? Getting it Right", *University of Pennsylvania Law Review*, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3639184.); [5] U.S. v. Baker Hughes, Inc., 908 F.2d 981 (D.C. Cir. 1990); [6] For example ProMedica Health Sys., Inc. v. FTC, 749 F.3d 559, 571 (6th Cir. 2014); St. Alphonsus, 778 F.3d at 788–92; FTC v. H.J. Heinz Co., 246 F.3d 708, 720 (D.C. Cir. 2001); FTC v. Univ. Health, Inc., 938 F.2d 1206, 1222 (11th Cir. 1991); [7] State of New York et al v. Deutsche Telekom AG et al, No. 1:2019cv05434 - Document 409 (S.D.N.Y. 2020).

32. Finally, efficiencies may also be considered by competition authorities and courts in the design of remedies. Firstly, because when feasible, merger remedies should eliminate the likely anticompetitive effects of the transaction without sacrificing the efficiencies that it brings (ICN, 2018[15]). Second, because they can be designed to ensure that the efficiencies claimed will actually materialise, for instance by the merging parties explicitly committing to achieve them. This is particularly important when efficiencies are likely but weighing them against expected harm is not straightforward or the incentives of firms may change with time. Strategies may include analysing whether efficiencies are more likely to be materialised under certain remedy packages than under others if many suitable ones are available.

33. In the United Kingdom, the Merger Remedies Guidelines make explicit the possibility of considering efficiencies in the form of relevant consumer benefits at the remedies stage.[10] The CMA usually takes them into account in considering the extent to which the remedies may preserve such benefits. In one of its most recent decisions, the CMA cleared the Vodafone/Three merger subject to legally binding investment commitments to ensure that the efficiencies claimed by the parties effectively materialise. Although the CMA acknowledged that the parties were capable and likely to achieve the claimed efficiencies, there were concerns of their commercial incentives to implement them. In light of this uncertainty, the CMA found that "*a legally binding commitment to undertake the necessary investments would ensure that the merged entity would follow through fully on the programme*".[11] (See more details on the CMA's assessment of the transaction in Box 2 below). This allowed the authority to clear the transaction on the basis of efficiencies, considering them as a crucial part of the remedy analysis.

34. Efficiencies may also complement remedies. Instead of designing remedies solely to help efficiencies materialise, considering remedies and efficiencies together may lead the authority to authorise a transaction. For instance, in cases where neither efficiencies nor remedies alone can fully address or

compensate the multiple competitive concerns, evaluating them jointly might be crucial for the authority to conclude that the transaction will not significantly impact competition.[12]

2.2. How and who: How do authorities assess efficiencies, the type of evidence and the burden of proof

35. Competition authorities and courts use different criteria to determine how to consider and how much weight to give to claimed efficiencies, if any. The more common ones include the degree to which the efficiencies are likely, substantial and verifiable; if they are merger-specific, and whether all or some of the benefits must be passed on to consumers. The assessment of merger efficiencies strongly depends on which welfare standard the authority applies. For instance, pass-on to consumers is required when the authority relies on a consumer welfare standard and becomes less relevant in other cases.

36. Despite some differences across jurisdictions, most regimes generally concur on the general criteria. Similar to the standard of proof that competition authorities and courts have when determining whether a merger is likely to harm competition significantly, the criteria aim at establishing that any effects (in this case, positive) are likely and attributable to the merger itself. The OECD has discussed these criteria in the past (e.g. (OECD, 2013[2])), therefore, this section will focus on more recent developments in the analysis of each of these criteria and on highlighting instances when claims have been able to meet them. Before discussing the criteria, this section will present some cross-cutting aspects related to evidence relevant to competition authorities and courts for their assessment of efficiencies and their considerations on the burden of proof.

2.2.1. Evidence and burden of proof

37. Identifying and quantifying efficiencies is a difficult task. Regardless of whether efficiencies are considered a claim, defence or rebuttal, in practice, the burden of proof or production of evidence[13] generally lies with the merging parties. This is true for all OECD jurisdictions. The main argument for this is that parties to the merger have better access to information and are most able to produce and interpret the facts relevant to an efficiency claim. After all, if efficiencies are put forward by the parties, it means that they should be able to prove them. While competition authorities and courts recognise that the nature of merger review is forward-looking and therefore uncertainty is inherent to their analysis, they require merging parties to provide evidence that the efficiencies are probable to materialise and evidence of their magnitude. The same standard applies for competition effects, as authorities are required to prove that the transaction is likely to cause a substantial lessening of competition to challenge or prohibit it.

38. Strategies that competition authorities and courts have followed to facilitate the consideration of efficiencies include requiring merging parties to provide information on efficiencies and synergies already in the notification forms, or in the more extended questionnaires once a merger filing reaches an in-depth analysis phase.[14] While the burden of proof or production remains with the parties, this gives the authority more time to analyse efficiencies and include them in their considerations.

39. Quantifications, when possible, are desirable. Scenarios where immediate effects from the merger can be observed (such as production facilities being closed or merged), allow for clear quantifications. However, they do not come without a challenge. As it is the case in other parts of the analysis, there usually is a trade-off between being able to substantiate an efficiency claim and keeping it simple, and thus persuasive, for authorities and judges to accept the quantifications. Econometric models and advanced quantitative methods may require many assumptions or underlying knowledge to be understood and considered accurate. These tend to be less precise when involving dynamic efficiencies. Although economic models may be imprecise tools, they may nonetheless have a probative value.

40. Elements such as internal documents used to decide on the merger in the first place, historical data and examples of efficiencies and consumer benefit, pre-merger studies from external experts and justified statements are considered as relevant evidence for competition authorities.[15] They can be complementary to quantifications and are given less weight if created specifically for the transaction or, even more, to substantiate the claimed efficiencies. For instance, documents produced to different stakeholders may have different value according to the objectives they pursue. While documents produced for investors tend to highlight sources of revenue (such as higher prices), documents produced for employees could elements with a negative impact on them, such as efficiency gains achieved through layoffs. The independence of experts (e.g. employees vs external consultants) is also relevant for authorities at the time of weighing the credibility of their assessment. While the source and type of evidence seems to be the same as the one used by competition authorities to prove anticompetitive effects, results from analysing it in both instances are different. The following sub-section will discuss in more detail some considerations that are specific to the evidence of the verifiability of the efficiency claims.

2.2.2. Verifiability

41. Efficiencies must be verifiable, which implies that competition authorities and courts should be able to verify that the claim is accurate, particularly regarding whether the efficiencies are likely, timely and sufficient.

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42. Competition authorities and courts assess whether efficiencies are likely to materialise. Requirements from authorities may go from how descriptive, detailed and supported with information the claim is to how replicable and robust the quantifications are.

43. Authorities acknowledge that the exercise of determining the impact of efficiencies, and their magnitude involves uncertainty, as does the assessment of anticompetitive effects. At the same time, they require that probabilities and estimations are reasonable, thus filtering out speculative and vague claims or claims of efficiencies that are marginal to consumers. For example, some authorities establish that an independent person should be able to review the supporting information provided by the merging parties and reach the same conclusions while others rely on parties to present a methodology that is robust enough that can be verified by different pieces of evidence.[16]

44. One practice that seems to be common is the use of consultants and economic experts to assess and present the efficiencies to the relevant authority. Although not always the case, they might be able to demonstrate the efficiencies from a more independent perspective than the parties themselves, which contributes to the verifiability of the claim. When experts are not independent, the value of their testimony is reduced as the risk of subjectivity is higher.[17] The use of conservative estimates, a focus on the cost savings that are most likely to occur and supporting evidence such as documents created in the ordinary course of business are complementary to the work done by these experts (Shencoop and Harris, 2019[16]).

45. In a dynamic context, studying past transactions, as well as the past behaviour of the merging firms has proven to be relevant both for the examination of competitive effects and for the review of efficiency claims. Reviewing intellectual property and R&D dynamics, past integrations of intangible assets, and in general the experiences with innovation that companies have had in the past may give some information on probable future behaviour.[18] Similarly, understanding if the assets that will be combined are substitute or complementary, reviewing how products and services offered by the parties and competitors have evolved and what are the consumption patterns may be useful to understand if the claimed efficiencies are even relevant.[19]

Timely

46. Another relevant aspect that contributes to verifiability is the efficiencies being timely. The main reason for this is that authorities need to be positive that they will counteract the immediate upward pricing pressure (or short-term negative impact in other competition variables) that may arise from the reduction of competition. This implies that efficiencies that are expected to materialise in the more distant future are usually given less weight by authorities. In addition to being less close, they tend to be more difficult to predict. One of the most recent merger decisions in the United Kingdom (Vodafone/Three) illustrates how behavioural remedies may be accepted or imposed, according to the jurisdiction's legal framework, in cases where efficiencies are more likely to materialise in the long run. The role of the remedies is to control the merged entity's behaviour and limit actions that may reduce efficiency in the market while giving the merger efficiencies sufficient time to materialise (see Box 2).

Box 2. The Vodafone/Three merger in the United Kingdom

In December 2024, the Competition and Markets Authority (the CMA) in the United Kingdom cleared with remedies the merger between Vodafone and Three, two of the four mobile network operators active in the United Kingdom.

Within the process, the parties claimed that the integration of their networks would result in a more efficient network with higher capacity, lower incremental cost, and/or higher quality. One of the biggest challenges for the claimed efficiencies to be recognised was the time factor. According to the merger plans, the full integration of the networks was expected to take around eight years, involving some intermediary phases that required upgrading some parts of the infrastructure and withdrawing others. For the CMA, this process would result in efficiencies materialising incrementally over the network integration period but not necessarily in the early years. The CMA found limited evidence that the parties based their short-run pricing strategies on capacity or incremental costs, and so, the efficiencies would not be able to offset the upward pricing pressure arising from the transaction.

Resulting from timely concerns in the materialisation of efficiencies, the CMA imposed a commitment on the parties to maintain prices of a set of retail packages of services and terms for wholesale access for at least three years. After the three years, the CMA considered that efficiencies would already have an impact on the company's pricing behaviour.

Moreover, the CMA was not convinced that the market dynamics would guarantee that the parties implemented the integrated network as initially planned. For instance, there was a concern that the parties may decide in the future to scale back the integration plans to save money. Therefore, the CMA also required as a remedy that the parties commit to deploying the network within the period of eight years, agreeing on the number of sites and other specifications.

Source: CMA (2024) Final Report Anticipated Joint Venture between Vodafone Group PLC and CK Hutchison Holdings Limited concerning Vodafone Limited and Hutchison 3G UK Limited. ME/7064/23, 5 December 2024, https://assets.publishing.service.gov.uk/media/6756f990f96f5424a4b877b7/Final_report_9_December_2024.pdf

47. While some authorities leave the timely aspect broad in their guidelines and assess it on a case-by-case basis (which, in turn, gives more flexibility to review dynamic efficiencies), others have determined time frames for efficiencies to materialise. This latter is the case in Brazil. According to its guidelines on the analysis of horizontal mergers, CADE requires efficiencies to be reached in a period of less than two years (CADE, 2016[17]).

Substantial

48. In addition to being likely and timely, efficiency claims are also evaluated to assess whether they are substantial, meaning that they should be sufficient to counteract (or even exceed) the merger's potential anticompetitive harm. Generally, competition authorities and courts take into account the ability and incentives of merging parties to lower prices, increase quality or innovation and, to a certain extent, other ways of competing that may benefit consumers. Including efficiencies within the assessment of competitive effects, for instance through merger simulations, diversion ratios or estimation of upward price pressure indices (e.g. UPP or GUPPI) usually allow merging parties to present quantitative measures of the extent to which efficiencies would offset any incentives to increase prices as a result of competition from the transaction.[20] In other instances, especially when the harm has not been quantified, a qualitative assessment of the efficiency magnitude may suffice. When quantification is not possible or presents relevant limitations, third parties' opinions may come in handy. This has been the case in Australia, where the merger authorisation process requires public consultation (See Box 3).

Box 3. Public consultation in the merger authorisation process in Australia

In Australia, one of the ways that the Australian Competition and Consumer Commission (ACCC) reviews mergers is through an authorisation process. Merger authorisation is a formal process that provides protection from legal action for a breach of the Competition and Consumer Act 2010.

Under this process, the ACCC may test efficiencies claimed by merger parties (in addition to applying a public interest test with broader considerations, as will be discussed in section 3.2) and seek stakeholders' opinions to validate and verify the claims.[1] In other jurisdictions, informal consultation may generate the same outcome and may allow the authority to confirm its findings regarding the likeliness, timeliness and substantiality of the efficiencies.

The public consultation process has been a determinant for the ACCC's assessment of efficiencies. It was recently in its decision to deny authorisation to the spectrum-sharing transaction between Telstra and TPG Telecom in 2022. The merging parties claimed, among other public benefits of the transaction, efficiencies related to network improvements, innovation and increased choice. While some of the parties' views supported the existence of the efficiencies claimed, others argued that any increase in the service quality would only have a short-term effect and that most of the dynamic efficiencies claimed would not materialise given lower incentives of the merging parties to invest in infrastructure in the longer run. This was particularly relevant as the ACCC had already found those concerns over dynamic competition in its assessment of the competitive effects of the transaction. Ultimately, the public consultation allowed the ACCC to confirm its concern, recognise that the benefits were only of very short term and conclude that they were not sufficient to offset the detriment found.

Note: [1] It is important to note that under the informal merger review, the ACCC may also consider efficiencies as one of the merger factors according to Section 50(3) of the Competition and Consumer Act. According to the ACCC's 2017 Merger Guidelines, "In cases where a merger is likely to achieve significant efficiencies, but the efficiencies do not prevent a substantial lessening of competition, the merger may only proceed if the acquirer applies for, and the ACCC grants, authorisation for the proposed merger. As part of the statutory test, the ACCC may consider whether gains in efficiency constitute a public benefit that outweighs the public detriment from the substantial lessening of competition." Similar considerations are made in the draft merger guidelines for public consultation published in March 2025.
Source: ACCC (2022) Authorisation Number: MA1000021-1, Application for merger authorisation lodged by Telstra and TPG in respect of the proposed Multi-Operator Core Network commercial arrangements and spectrum sharing.

49. Verifiability is often considered the most challenging criterion to satisfy when claiming efficiencies. However, instances where it has been achieved can illustrate the various strategies employed by parties to meet this criterion such as the use of historical data, ordinary course of business models and documents, past transactions, expert opinions and the analysis of similar conditions in analogous markets. Analysing

historical data, as well as short-term forecasts produced by the merging or third parties may give idea on whether the efficiencies are likely to materialise, in which direction (i.e. decrease/increase in prices) and if the magnitude is similar to the one claimed by the parties.[21] Evidence based on ordinary course of business models and documents provide competition authorities and courts with greater assurance that the information presented is what the merging parties utilise to inform their business decisions (i.e. if it is reliable for the parties to run their business, it could be reliable for the assessment of their claims).[22] Evidence of past mergers may also provide authorities and courts with relevant information on how the market and its participants react to transactions, and may provide a solid counterfactual based on the similarities of the transactions and the characteristics of the industries. They may also provide information on the existence and scale of the efficiencies, as well as for timeframes for their materialisation. This evidence may come from past transactions in the same relevant markets (even if they do not involve the merging parties)[23] or from past transactions and similar conditions in analogous markets.[24]

2.2.3. Merger-specific

50. Regardless of when in the assessment the competition authority or court evaluates efficiencies, the claims are put forward to clear a merger that is anticompetitive. Therefore, most jurisdictions require parties to prove that the efficiencies are merger-specific, meaning that they are the direct result of the merger and can only materialise if the merger consummates. This criterion is equivalent to competition authorities and courts intervening solely when competition is significantly lessened as a direct consequence of a merger, rather than due to other factors. In the context of efficiencies, merger specificity also implies that there are not less anticompetitive (realistic) means of achieving those efficiencies, such as internal expansion, other mergers or acquisitions, joint ventures and a variety of contractual arrangements between the parties that fall short of a merger. The main reason for requiring the efficiencies to be merger specific is that if they occurred in the same or similar timeframe and cost absent the merger, the transaction itself would provide little economic benefit. At the same time, it means that the merger does not have to be the only way to pursue the efficiencies but that it is the most efficient or effective way of doing so.

51. Demonstrating merger specificity often involves an evaluation of two types of scenarios. First, where parties demonstrate that efficiencies cannot be achieved by either company alone, for instance through internal growth,[25] more investment in product development and innovation,[26] or adoption of industry best practices.[27] Second, where other arrangements between the merging parties or other market agents, which would be less anticompetitive, are not possible. This includes joint ventures and other mergers and acquisitions. To rule out alternatives to achieving the efficiencies, parties must prove that they are not likely and/or timely. It is not enough to show that they may be more cumbersome or expensive. Box 4 describes a 2009 merger between hospitals in the Netherlands, a notable example of an overall review of the merger-specific criterion of efficiencies, as well as of the type of relevant evidence acknowledged by a competition authority.

Box 4. Hospitals merger in the Netherlands

In 2009, the Netherlands Competition Authority (at the time the NMa for its name in Dutch, predecessor of the Netherlands Authority for Consumers and Markets - ACM) reviewed and approved with remedies a transaction between hospitals in the region of Central Zeeland.

As part of the arguments for merging, the parties argued that the transaction would allow them to provide treatment and services which neither hospital could provide in their separate catchment areas, allowing patients to have more choice and higher quality treatments and making it easier for specialists to meet

volume requirements for subspecialisation. The NMa accepted the efficiencies and carried out a thorough exercise to conclude whether they were merger specific.

First, it reviewed other alternatives, such as the possibility of small hospitals providing the same services if co-operating with larger universities or other medical centres with similar facilities and concluded that, given the characteristics of the geographical location of the merging parties, the transaction would be the only available alternative.

Second, it asked for the Dutch Healthcare Authority and the Dutch Healthcare Inspectorate's opinion on the availability of alternatives in other parts of the country.

The NMa further supported its conclusions with a survey on how other hospitals in other geographic areas in the Netherlands have dealt with similar issues and, excluding those located near universities, the survey allowed the authority to conclude that alternatives to the transaction would be unlikely given their cost of implementation, which was significantly high in comparison to the size of the hospitals.

Finally, the NMa commissioned an external consultancy an assessment on whether the efficiencies were indeed merger specific. The study concluded that although there was an alternative for each of the problems that the transaction was aiming at solving, the merger was the best comprehensive form to tackle them jointly in favour of consumers' choice and availability of services.

After considering all the available evidence, the NMa found it sufficiently robust to conclude that the efficiencies claimed were indeed specific to the merger.

Source: Netherlands Competition Authority Case No. 6424/427 Walcheren Hospital – Oosterschelde Hospitals.

52. Specific characteristics of the relevant markets and past transactions may help with the analysis of the merger specificity of the claim. For example, in markets that tend to be natural monopolies due to their characteristics, or where there are restrictions for new entry and expansion of certain agents, it is easier to rule out alternatives that may not be available or may be practically difficult to implement.[28] Geographic considerations may also play a role in the analysis. There could be alternatives that are likely to happen but involve different geographic dimensions for the operation or may have limited impact on the relevant market where the efficiencies would materialise.[29]

53. This was the case in State of New York et al v. Deutsche Telekom AG et al. The plaintiff argued that efficiencies claimed were not merger-specific because merging parties had alternative means to increase their coverage and capacity, including through acquiring spectrum in anticipated auctions or other private transactions. On this point, the court analysed the frequency and uncertainty of auctions for spectrum and concluded that there was no guarantee that if the auctions were to take place as anticipated, the merging parties could win a substantial amount of spectrum at either future auctions or through private transactions. Moreover, it noted that "*the spectrum that the FCC chooses to auction may not practically address the merging parties' needs*" and that there were no future auctions officially scheduled at the time of the decision. The court concluded that the increase in capacity resulting from combining the merging firms' spectrum assets on one network, the efficiencies claimed by the parties could be deemed to be merger specific.[30]

54. Analogous industry-specific characteristics and dynamics can also drive a different conclusion. In a similar case in the EU, the EC also reviewed increased capacity through combination of networks and spectrum assets. In the H3G/Orange merger, the parties argued that the capacity increase would allow them to offer considerably faster and higher quality services and to eliminate bottlenecks in their network effectively. Among other considerations, the parties mentioned that alternatives such as collaborative network-sharing arrangements were not compatible with H3G's business strategy and, therefore, were incompatible with their vision of the transaction. For the EC, these arrangements were an established practice in the industry and therefore, a plausible option. Moreover, from internal documents, the EC

observed that although network sharing was unlikely for H3G, Orange could have incentives to enter into such an agreement with other players like T-Mobile. This alternative was sufficient for the EC to conclude that the merger-specific criterion was not met.[31]

55. When the claim involves also dynamic efficiencies, it is usual to start the assessment by asking parties if and how the merger is expected to improve their ability to innovate and whether this could also arise from other arrangements such as licensing of intellectual property rights or joint ventures that focus on specific innovation projects. Competition authorities and courts have rejected claims related to R&D and innovation on the basis that parties may gain access to know-how and intellectual property to develop an alternative independently, mainly through licencing agreements.[32]

2.2.4. Pass-on to consumers

56. Mergers that generate efficiencies may also provide consumers with lower prices or access to better products. However, the extent to which the benefits that arise from mergers are shared between the merged parties and consumers is not always clear, uncertain and likely to change over time. That is why one main aspect of the analysis is whether efficiencies, or at least some of them, need to be passed on to consumers (or to a broader set of agents).

57. In consumer-welfare standard regimes, this pass-on is required and it means that efficiencies will flow through consumers resulting in consumer surplus and that they are not ancillary to the merger. The usual benchmark is that consumers in the relevant markets will not be worse off as a result of the transaction.[33] Usually, the efficiencies under this approach must benefit consumers in the specific markets in which concerns have been identified. Under other standards, such as total welfare, pass-on to consumers is less relevant. Alternatives may include pass-on to a subgroup of consumers, to consumers in other markets (see next section on out-of-market efficiencies) or even to the economy as a whole.[34] This subsection only refers to situations where pass-on to consumers is required.

58. In the EU, the Guidelines on Horizontal Mergers present examples of type of efficiencies that are usually passed on to consumers, which generally relate to reductions in variable or marginal costs or to dynamic efficiencies that improve products or services or generate new ones (European Commission, 2004[12]). Similar considerations include guidelines in other jurisdictions that follow a consumer-welfare standard such as Brazil, Chile, Colombia and the United Kingdom (when evaluating efficiencies as counter-vailing factors)[35]. This approach implies that some types of efficiencies are given more weight than others. As already mentioned in 2.1, the more indirect the link between the cost saving and prices, the more difficult it is for the claim to be successful. Efficiencies in upstream markets, for example, are less likely to result in lower prices for final consumers.[36] Conversely, those reduction of costs that can easily translate into reductions in prices, tend to be more accepted by authorities. Box 5 illustrates these considerations in two similar cases in the EU.

Box 5. UPS/TNT and FedEx/TNT: Difference between fixed and variable costs

In 2013, the EC prohibited the merger between TNT and UPS, two of the main express delivery integrators in Europe. The EC raised concerns that the transaction could increase prices in services for the delivery of small packages within the EEA. In return, the parties argued that the merger would lead to substantial costs savings on management, administration, ground transportation and air network expenses. Although some of the efficiencies were accepted by the EC (such as the air network costs), most were not, and the EC concluded that overall, the efficiencies were not sufficient to offset the concerns raised. The rejected efficiencies mostly related to fixed costs such as administrative expenses, that the EC did not see being allocated to the particular services, thus, reducing their prices. Other claimed efficiencies were rejected for not meeting the verifiability test.

Two years after its decision, the EC reviewed another transaction in the same relevant markets, now between TNT and FedEx. This time, after conducting a thorough analysis on the efficiencies claimed by the parties, the EC concluded that the claim met the criteria and accepted them. In this case, most of the cost savings claimed related to variable costs and the economies of scale that could be achieved with the transaction. For the EC, reduced fuel consumption and other pick-up and delivery costs from a more efficient and denser network may influence the price setting behaviour of the merged company and, thus, are cognizable as efficiencies that could be passed-on to consumers. The EC approved the merger.

Source: Cases No. COMP/M.6570 - UPS/TNT Express; COMP/M.7630 – FedEx/TNT Express and (Cardwell, 2017[18]) The Role of the Efficiency Defence in EU Merger Control Proceedings following UPS/TNT, FedEx/TNT and UPS v. Commission, Journal of European Competition Law and Practice.

59. Given the focus on prices that historically competition authorities have put on efficiencies to prove pass-on to consumers, the analysis of past behaviour and industry dynamics has proven to be relevant. Particularly, competition authorities have considered historical data on prices to be useful for the estimation of price changes as a result of costs reductions in the relevant markets impacted by the merger.[37] Internal documents created in the ordinary course of business can also be key for authorities to understand pass-on incentives.[38]

60. Overall, competition authorities and courts require merging parties to demonstrate that the efficiencies will not solely benefit their interests but will also be sufficiently transmitted to consumers. This ensures that consumer welfare does not diminish following the merger, which would be the primary goal of the intervention in the transaction is deemed anticompetitive.

3. Why is the efficiency defence still rare and should it stay that way?

61. In 1995, when the OECD Competition Committee first discussed efficiencies in mergers, it did so in a context when "*in surprisingly few situations involving mergers has an enforcement decision explicitly turned on the efficiency-enhancing attributes of the transaction in question*" (OECD, 1995[8]). This remains to be the case 30 years later. It is relevant to highlight that this perception leaves out the consideration of efficiencies in the first stages of assessment of mergers where competition authorities or courts could implicitly take them into account to decide whether to bring the case to an in-depth review or challenge it. It only focuses on when efficiencies take part of the in-depth analysis and are relevant for deciding on the overall impact of the transaction. This latter will be the focus of this section.

62. The section aims at understanding possible reasons why efficiencies in merger control are rare and whether this should still be the case. It first describes the type of transactions where efficiencies could be more relevant, what theoretical and empirical literature have studied and how this may influence competition authorities and courts' attitude towards efficiencies. It also discusses the standard of proof for efficiencies, which merging parties tend to consider high, while arguing that authorities tend to focus more on efficiencies impacting prices. The first part of the section concludes that although it is true that efficiencies are rare, they have been recognised by authorities and courts when they meet the criteria and that those cases could serve as an example for future claims to be successful.

63. This section then reflects on some ways that have led competition authorities and courts to consider efficiencies broader, for instance, by considering out-of-market efficiencies or by allowing for the consideration of other economic policies when reviewing the benefits of a merger.[39] There seems to be divergence in the different positions that authorities and courts have towards these broader considerations, with a conservative attitude being the prevalent one.

3.1. Possible reasons why efficiencies in merger control are rare

64. Possible reasons for the infrequent consideration of efficiencies, either as a defence or rebuttal, are outlined below, with a conclusion provided at the end of the subsection.

3.1.1. Is there a negative predisposition from competition authorities and courts?

65. Given the predictive nature of efficiency considerations and the conservative approach required to assess the effects of a merger, companies argue that competition authorities and courts are predisposed to view the likelihood of proposed efficiencies materialising as low. This results in authorities necessitating a high degree of certainty in their demonstration to be willing to acknowledge them (Marquardt, 2022[19]). Merger Guidelines do not seem to be useful in providing specific examples, at least for mergers with horizontal effects.[40] While they often mention types of efficiencies that may be recognised by the authority, they heavily rely on the assessment being case-specific and clear examples seem to be missing. On the

contrary, some guidelines focus on examples of efficiency claims that have been rejected by the authority, emphasising the predisposition perceived by the merging parties.[41]

66. Competition authorities and courts are particularly vigilant about transactions with horizontal effects in highly concentrated markets. The more concentrated the market becomes post-transaction, the greater the potential for harm, as it can create or strengthen a dominant position. To counterbalance this harm, efficiencies must be even more significant in these high-stakes deals. However, in already concentrated markets, it is also likely that at least one of the merging parties has achieved economies of scale or scope and possesses the resources for investment and innovation. This scenario makes it challenging to prove that the efficiencies are specific to the merger.

67. Some competition authorities have acknowledged these limitations in their guidelines or soft laws. For example, the EC in its Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (European Commission, 2004[12]) states that:

> *"It is highly unlikely that a merger leading to a market position approaching that of a monopoly, or leading to a similar level of market power, can be declared compatible with the common market on the ground that efficiency gains would be sufficient to counteract its potential anti-competitive effects."*

68. The same argument has been supported by the courts. For example, in the EU General Court's decision on the Ryanair/Air Lingus merger, the Court stated that because Ryanair would be close to a monopoly on some routes, even if all the efficiencies were materialised and used to lower fares, the company's incentives and priority would be maximising profits and, thus, it would be more profitable not to pass on the claimed efficiencies to consumers.[42]

69. Similarly, in the United States, the competition agencies have indicated that efficiencies almost never justify a merger to monopoly or near monopoly situations.[43] Courts, in general, have been even more sceptical about efficiencies in highly concentrated markets, requiring proof of "extraordinary efficiencies" in such cases (Shencoop and Harris, 2019[16]).[44] This leaves room for very exceptional cases where efficiencies can make a difference in a merger decision and raises concerns to the merging parties about claiming them in the first place.

70. One related aspect from the competition authorities and courts' perspective is that analysing the trade-off between efficiencies and anticompetitive effects is not straightforward and whether the efficiencies exceed the expected effects tends to be blurred. Given that the risk of committing Type II errors (approving an anticompetitive merger) may generate a bigger effect in the market than committing a Type I error (blocking a merger with significant efficiencies), grey areas tend to lead competition authorities and courts to decide on the most conservative side (Kwoka, 2015[20]).

71. Experts advocating against broader consideration of efficiencies argue that given the limited resources that competition authorities and courts have, it seems more reasonable to dedicate them to challenge other potentially anticompetitive transactions than to evaluate claims whenever they are not fully substantiated by the parties in the first place (Glick, Lande and Bush, 2024[21]). In Germany, this was explicitly recognised by the Bundeskartellamt in its Guidance on Substantive Merger Control issued in 2012. Despite being possible to evaluate efficiencies in the context of the transaction having pro-competitive effects that improve other markets, these efficiencies must be structural, which limits the assessment in practice.[45]

72. Limited impact of efficiency claims in highly concentrated markets, higher risks of incurring in Type II errors and resource restrictions that require authorities to prioritise may lead authorities to be more conservative towards efficiencies and bring down their acceptance rate overall.

3.1.2. Are standards for assessing efficiencies too high?

73. A question of whether competition authorities and courts have set too stringent criteria for accepting efficiency claims has been asked multiple times as a potential reason for efficiency claims being uncommon in final decisions.

74. Verifiability is often the most difficult criterion to meet, as it strongly depends on assumptions and estimations. In a study on the assessment of efficiency claims in the EU between 2012 and 2023, Nilausen (2023[13]) observed that most rejections of efficiencies related to verifiability, particularly due to lack of sufficient evidence that efficiencies were likely to materialise. The study highlights, however, different types of efficiencies that did meet the EC's verifiability standards even in cases where claims ended up being rejected for not meeting any of the other criteria. This evidence includes historical data, internal documents, inputs from other market participants and external data.

75. Meeting merger-specificity is also not straightforward, as at least theoretically, parties could almost always enter into alternative agreements and other contractual relations to combine resources and extract the synergies they are arguing that the merger brings them. The main reason for them to pursue the merger, and a central part of the merger-specific argument, is that such arrangements would not make as much business sense as the merger. However, as it can be seen from the discussion above on the merger-specific criterion, the existence of other alternatives itself is not what authorities assess, but whether the merger is the most efficient or effective way of doing so.

76. Section 2.2 presented some examples of types of evidence used for proving efficiencies. It demonstrated the significance of evidence generated during regular business operations and the importance of presenting evidence with testable and reasonably robust assumptions (such as the court's conclusion in the T-Mobile/Sprint merger). Conversely, evidence specifically created for the transaction is often rejected, as it carries a higher risk of including inaccurate assumptions and may be perceived as less trustworthy. This, in turn, may contribute to the perception of competition authorities and courts having higher standards.

77. This was the case in the Ryanair/Air Lingus merger, where parties presented quantifications to estimate the efficiencies, but the EC concluded that Ryanair had created the evidence to specifically justify efficiencies in the context of the merger. For the EC, the evidence used to substantiate the efficiencies did not represent Ryanair's usual business and, instead, revealed that Ryanair had made erroneous assumptions and inaccuracies in the estimations of the efficiencies. Therefore, the EC concluded that the efficiencies were not verifiable.[46] The General Court of the EU confirmed the assessment and conclusions of the EC regarding the three criteria for evaluating efficiencies.[47] While this is only one example, there are many similar situations in which competition authorities or courts reject pieces of evidence that would otherwise be conclusive of the existence of efficiencies. These situations demonstrate that the process is very stringent, as is the process that authorities follow, and courts require, for the proof of anticompetitive effects. It requires more than vague claims and involves substantial use of evidence, typically more than one, that withstands robustness tests.

78. Another example for arguing that authorities are setting the bar too high relates to a potentially narrow perspective of merger effects. Particularly, the argument is that they tend to focus more on short-run price changes, making it harder to succeed if the claim involves non-price competition, innovation and dynamic efficiencies (Nilausen, 2023[13]). This argument somehow relates to the literature on economic analysis regarding efficiencies lagging far behind that of effects (Asker and Nocke, 2021[22]). Given that even in fewer cases authorities and parties engage in the discussions about efficiencies, less time is dedicated by academics and researchers to understanding and developing frameworks for their analysis (Kuoppamäki and Torstila, 2015[23]) and (Kaplow, 2021[24]). This also translates in competition authorities and courts assessing less dynamic or longer-term efficiencies.

79. One important aspect that usually leads competition authorities and courts to reject dynamic efficiencies is the timely characteristic linked to the verifiability of the efficiencies. Dynamic efficiencies tend to materialise in the long run, thus being excluded by strict criteria on how timely the efficiencies should be. For example, this criterion has been decisive in CADE rejecting efficiencies claimed by parties due to parties not having been able to demonstrate that the timeframe expected for the materialisation of those efficiencies was inferior than two years.[48] Given that all dynamic efficiencies claimed by parties in merger reviews in Brazil have been rejected by CADE due to lack of merger-specificity, it remains to be seen whether the two-year criterion represents a limitation for the authority to consider longer-term impact.[49]

80. Developments and limitations in the assessment of innovation considerations (and other non-price effects) in mergers have been discussed in the past at the OECD. It has been noted that, in the same way in which authorities should not overlook innovation concerns because they are harder to prove, they also should be open to considering that innovation efficiencies may require a more flexible approach (OECD, 2021[3]). In 2023, a discussion on innovation considerations concluded that while innovation is playing a key role in different stages of merger review, including efficiencies, there is still a way to go in understanding more how innovation can and should be analysed in this context (OECD, 2023[14]). It is expected that future efficiencies analysis will place greater emphasis on innovation and impact on variables other than price.

81. Overall, it appears that the criteria that competition authorities and courts require for a successful efficiency claim follow the same objective, standards and considerations that when proving anticompetitive effects. Both positive and negative potential effects of a merger need to be considered usually in a forward-looking scenario, where there is uncertainty, but where robust enough considerations that the effects would materialise, that they result from the merger and not from any other external situations and their impact on consumers are required.

82. Arguments in favour of considering efficiencies in more cases are based on the perception that authorities may have set the bar too high. Therefore, they usually call for lowering the standard of proof or shifting the burden, at least, to some extent. Canada's experience (see Box 6) and its recent developments is illustrative of the fact that doing so (or increasing the burden for the competition authority) would not make it easier for efficiencies to be assessed and, instead, the risk of type II errors could increase.[50]

Box 6. Canada's approach to merger efficiencies

In 1986, the Canadian Parliament included an efficiency exception in section 96 of the Competition Act. The exception aimed to promote economic efficiency, recognising the need for supporting domestic industries in a small, open economy, to compete with larger global players at the expense of some consolidation within the country. Thus, the Act included an efficiency defence in mergers, whereby a merger that was otherwise found anti-competitive could be permitted to proceed if it was likely to bring about gains in efficiency that would be greater than and offset the anti-competitive effects.[1] This provision required the Competition Tribunal to conduct a trade-off analysis, weighing the anticompetitive effects presented by the Competition Bureau against the efficiencies presented by the parties.

The efficiency defence was first tested in the early 2000s, in a merger-to-monopoly transaction between propane suppliers (Superior Propane Inc and ICG Propane Inc). The Competition Commissioner challenged the transaction, and the Tribunal decided to allow the merger, relying on the efficiencies raised by the parties and balancing against the anticompetitive effects, by employing a total welfare standard.[2] The Commissioner successfully appealed on the basis that the total welfare standard failed to consider relevant anti-competitive effects beyond deadweight loss, such as the wealth transfer from consumers to producers. However, on redetermination, the Tribunal confirmed its original judgement establishing, among other things, that pass-on to consumers was not required and that the 'socially

adverse' portion of the wealth transfer experienced by the poorest segment of consumers could be considered in the trade-off analysis.

After this first case, other transactions went through with the argument of overall efficiencies being greater than the anticompetitive effects, even when some of the efficiencies claimed resulted exclusively in private gains or did not directly impact competition. Efficiencies became a full statutory defence that was brought by merging parties in almost all litigated cases, and it had the practical effect of making challenges more burdensome and complex for the Competition Bureau, because it required the latter to quantify the effects in response to the efficiency defence.[3]

Critics of the outsized role of efficiencies in Canada argued that the context has shifted: Canada is no longer a small, domestic market, and the Act no longer needs to prioritise international competitiveness over domestic competition. Additionally, they contended that the defence led to substantial consolidation that did not translate into more efficiencies to compete in international markets. Being national champions has not proven to be the key for companies to be able to compete internationally. Considering these arguments, as well as the difficulty for the Bureau to meet its legal burden and successfully challenge anticompetitive mergers, important amendments to the Competition Act were implemented in December 2023 as part of a modernisation process of Canada's competition regime.[4]

The amendments repeal the efficiency exception under the merger review provisions of the Competition Act (section 96) so that it is no longer available going forward. However, the merger provisions do still allow for the consideration of any factor relevant to competition, which may include efficiencies, on a discretionary basis (section 93(h)). The Bureau is in the process of updating the Merger Guidelines to address this change.

Notes and sources: [1] Section 96 of the Competition Act. [2] See Comm'r v. Superior Propane Inc., 2000 Comp. Trib. 15; See Canada (Commissioner of Competition) v. Superior Propane Inc. and ICG Propane Inc., [2001] 3 F.C. 185; Comm'r v. Superior Propane Inc., 2000 Comp. Trib. 16; and Canada (Comm'r) v. Superior Propane Inc. and ICG Propane Inc., [2003] F.C. 529. [3] For example, the Tervita case in 2015, a merger-to-monopoly transaction in waste disposal between Tervita, Complete Environmental and Babkirk Land Services in which the Tribunal concluded that efficiencies, although marginal, were sufficient to offset the harm (given that the Bureau had failed to quantify the potential deadweight loss among other limitations in the quantification of the anticompetitive effects which led the Tribunal to give them a weight of zero). See Tervita Corp. *v.* Canada (Commissioner of Competition), 2015 SCC 3, [2015] 1 S.C.R. 161. [4] See Competition Bureau: Guide to the December 2023 amendments to the Competition Act, https://competition-bureau.canada.ca/en/how-we-foster-competition/education-and-outreach/guide-december-2023-amendments-competition-act#sec02

3.1.3. How big is the sample?

83. The vast majority of mergers that are notified to competition authorities do not pose risks to competition. Competition authorities and courts recognise that mergers are a relevant tool for companies to develop and contribute to the efficient functioning of the markets. That is why 93.3% of the transactions subject to merger control each year are cleared (OECD, 2025[25]). In their prioritisation exercise, which includes deciding which cases to challenge or even simply to review in depth, competition authorities implicitly assume that the benefits of the transaction are superior to the restriction on competition.

84. This means that, in practice, only in very few situations claiming efficiencies and subsequently evaluating them may be needed. While competition authorities do consider them when deciding whether to bring a merger to a Phase 2 or challenge it in court, in fact, they tend to explicitly review them only in the assessment of the most troublesome transactions. This reduces the sample of cases in which efficiencies can play a relevant role to less than 10% of the transactions evaluated each year. Even within this smaller sample, assertions that efficiencies are rare remain. Theoretical frameworks as well as practical challenges that will be discussed below are part of the reason why.

3.1.4. Is there enough empirical support?

85. Literature generally does not strongly support the argument that mergers that restrict competition bring significant efficiencies to markets (even less to consumers). While not unanimous, studies often suggest that efficiencies may be overestimated or that they fail to materialise in the magnitude initially thought. This supports the argument for their cautious consideration and acceptance.

86. There are broadly two types of empirical studies, both reaching relatively similar conclusions and offering minimal evidence to support the notion that efficiencies could prevail. The first is composed of ex-post merger studies that analyse post-merger prices and quality of products and services. These include both studies on specific industries, such as transport and telecommunications and cross-industry analysis.[51] They have mostly focused on highly concentrated markets, where efficiencies have been claimed as part of mergers and acquisitions. While most of them have concentrated on static effects, others have also analysed potential dynamic effects. This branch of literature commonly emphasises that it is particularly in very concentrated markets that efficiencies are less likely to materialise. In turn, they show that highly concentrated markets are where merging parties are most likely to claim efficiencies as a defence.

87. The second group refers to corporate finance studies and econometric work that attempts to measure directly efficiency changes associated with mergers and acquisitions. This set of studies also includes examinations of the impact of mergers on the efficiency and productivity of firms in the market. While scarcer, this type of exercise has used different econometric models that rely, for instance, on profits, accounting indicators or production functions, to try to estimate changes in costs and returns on assets.[52] Overall, these studies do not find statistically significant gains in productivity that result from mergers. Similarly to the first group of literature, econometric evidence is also somewhat ambiguous.[53] However, observed efficiencies were typically short-term and often influenced by other factors, such as increased input demand, making it difficult to determine whether the merger was indeed their source.

88. One final group of reports that compile empirical work rather than performing the analyses themselves is useful for summarising what literature have found (see Box 7). They suggest that efficiencies hardly ever materialise after horizontal mergers have been consummated and that often, the transactions are associated with price increases and quality degradation instead. This, in turn, indicates that anticompetitive effects prevail over efficiencies. It is relevant to note, however, that these studies are mostly based on mergers in the United States and, to a lesser extent in Europe, and often include transactions reviewed more than ten years ago. More updated studies that review mergers in fast-changing industries may be required to update or confirm these findings.

Box 7. Literature reviews on the existence of merger efficiencies

Different reports compiling empirical work (rather than performing it themselves) have been quite informative and revealing on the realisation of efficiencies, particularly in horizontal mergers.

Kwoka (2015[20]) presents a meta-analysis of nearly 50 different empirical, retrospective studies that examine the effect of specific mergers (more than 3 000) in the United States, the decisions taken and the chosen remedies when applicable. The author reviews studies of mergers in many industries, including hospitals, media and airlines. The main conclusion is that most of the studied mergers resulted in competitive harm, usually but not exclusively in the form of higher prices for final consumers. The review also finds that relatively few Type I errors are, in fact, made by the antitrust agencies compared to Type II errors — clearing anticompetitive mergers —, which comes from an unsupported view that large mergers produce efficiencies and consumer benefits. Instead, in some of the studies analysed, the conclusion was that there was no evidence of systematic benefits from mergers.

Hovenkampf (2017[26]) also reviews empirical studies that have examined the post-merger performance of mergers approved by the United States agencies. The author concludes that the empirical work

available, while not unanimous, strongly suggests that "*current merger policy, if anything, underestimates competitive harm, exaggerates passed-on efficiencies, or produces some combination of both*".

A more recent review of what the economic evidence says about efficiencies is presented in (Rose, 2020[27]). The paper summarises a wide variety of studies that estimate efficiency effects from mergers and suggests that "*the conclusions of this broad literature cast significant doubt on an assumption of widespread prevalence of merger-related efficiencies sufficient to overcome the adverse effects of increased market power.*" Similarly, Asker and Nocke (2021[22]) examine recent developments in economic research relating to cartels and merger enforcement. On efficiencies, the paper surveys empirical evidence on pro-competitive effects of mergers and finds that first, literature remains less evolved in comparison to economic research on anti-competitive effects, and second, while there is already some empirical basis available on efficiencies that mergers may bring, there is little about how they may materialise, whether any efficiencies are merger-specific and their potential magnitude

Sources: Asker, J. and V. Nocke (2021), "Collusion, Mergers, and Related Antitrust Issues", *NBER Working Paper Series*, Vol. 29175, http://www.nber.org/papers/w29175; Rose, N. (2020), "The Dichotomous Treatment of Efficiencies in Horizontal Mergers: Too Much? Too Little? Getting it Right", *University of Pennsylvania Law Review*, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3639184; Hovenkampf, H. (2017), "Appraising Merger Efficiencies", *George Mason Law Review*, Vol. 703, https://scholarship.law.upenn.edu/faculty_scholarship/1762/; Kwoka, J. (2015), *Mergers, Merger Control, and Remedies: A Retrospective Analysis of U.S. Policy*, MIT Press, https://www.jstor.org/stable/j.ctt17kk9tb.

89. The conclusions from these studies generally question the overall acceptability of efficiencies as a defence by competition authorities and courts. While it remains to be well-recognised that mergers can increase the efficiency or productivity of the merged firm, this is neither guaranteed nor can be presumed. This adds to the fact that when efficiencies arise, they are not necessarily passed on to consumers (or customers) or their effect is not always sufficient to outweigh the effects of the lessening of competition from the transaction.

90. Competition authorities and courts are aware that the evidence does not support a generalised materialisation of merger efficiencies. While they recognise the limitations of the available studies, they do give them weight in their attitude towards efficiencies in mergers.[54]

3.1.5. Do merging parties properly substantiate efficiencies?

91. The reasons why efficiencies remain rare do not only come from limitations on the side of competition authorities and courts. Often, parties do not provide the required detailed analysis to claim efficiencies and, having the burden of proof to do so, this implies that it is often very easy for competition authorities to reject efficiencies claims without assessing them. Ultimately, if the merging parties cannot substantiate their claims, it is unlikely that anyone else can. This is why the burden of proof rests with them (Lancieri and Valetti, 2023[28]).

92. The main argument is usually that antitrust authorities historically rejecting efficiencies in most cases are a perfectly reasonably argument for companies to avoid proposing them when seeking merger approval (Baxter, 2025[29]). In addition to this, merging parties argue that aspects such as the risk to exchange confidential information to quantify them, the fact that claiming efficiencies may indirectly mean that they are admitting that the merger is anticompetitive,[55] and the use of resources in other aspects of the analysis are relevant limitations in their decision on whether basing their defence on efficiencies. From the merging parties' perspective, their resources are also usually better spent in other parts of the review: market definition, structure, and anticompetitive effects. Most of the times, efficiencies are raised in notification forms but are not a central part of the argumentation and are not necessarily substantiated.

93. Certainly, confidentiality may play a role. While the burden of proof or production, as discussed above, lies on the parties given their best position to access and understand facts, sharing confidential information with each other while negotiating a deal is risky and they may only be willing to do so once they conceive a clear path for approval. By that time, it may already be too late to consider efficiencies, or the evidence offered may be seen with scepticism. Confidentiality may also be a barrier for companies to claim efficiencies whenever disclosing the sources of said efficiencies are incompatible to the objectives of some stakeholders. For instance, when efficiencies would cause layoffs, and management faces a "multiple stakeholders" dilemma with the competition authority on one side and workers unions in the other.

94. Moreover, there are many situations in which claiming an efficiency and proving that it is merger-specific, may be inconsistent with arguing that the merger does not raise competition concerns. For example, an argument that barriers to entry are low and entry is expected may play against claiming that alternative mergers or expansion plans were unavailable. Therefore, merging parties may find in practically difficult to raise an efficiency while arguing that the merger does not pose competition concerns in the first place.

3.1.6. Conclusions

95. All factors considered together may mean that when an efficiency defence is indeed raised, the probability that it is well substantiated and sufficient to influence the decision of the competition authority or court is not necessarily high. However, this follows from the need for a thorough analysis to avoid Type II errors that may lead to excessive concentration in the markets, while few efficiencies materialise or do not get passed-on to consumers. As rigorous as having to prove anticompetitive effects, claiming efficiencies also necessitates more than vague assertions and entails a substantial reliance on different sources of evidence, typically complementary in nature, that can endure testing.

96. The few cases where efficiencies have been acknowledged are relevant evidence that the standard can be met. The study carried out by Nilausen (2023[13]), for instance, showed that in 8 of the 31 cases in which parties raised efficiencies in merger cases evaluated by the EC the claims were not dismissed and even in some of the 21 remaining ones they were relevant for the assessment even if they did not meet all the EC's requirements to be fully acknowledged. More of this type of study in the future could be relevant to show practical examples of competition authorities and courts accepting efficiencies and alternatives for merging parties to consider if they wish to demonstrate them successfully.

97. While proving verifiability and merger specificity is not straightforward, the few available cases where parties have succeeded to do so indicate that traditional evidence such as documents and models used during regular business operations, historic data, internal documents and independent expert testimonies may build a robust case.

98. Complementing the efficiencies analysis with considerations on how remedies may guarantee their materialisation seems to be an alternative that allows authorities to more cautiously conclude that the transaction would not affect competition in the market. A successful efficiency defence does not necessarily mean that the most problematic mergers should be approved or remain unchallenged. It could also mean that, if recognised, efficiencies can help shape a remedy package that ultimately leads to the approval of an otherwise anticompetitive transaction (Cardwell, 2017[18]). For example, competition authorities can negotiate and/or impose remedies that improve contestability, aiming at preserving technical efficiency gains associated with cost savings, while mitigating any allocative efficiency losses that may result in price increases for consumers (Braido, 2024[30]).

3.2. Should the framework for assessing efficiencies remain unchanged?

99. The previous subsection discussed potential reasons why efficiency claims are rare. The fact that the sample is small in the first place, the low support from empirical studies, possible predispositions from

competition authorities, and lack of robust substantiation of the claims seem to be sufficient causes for the few merger decisions where efficiencies have played a relevant role.

100. In the debate on whether this should still be the case, there are two main elements. The first one is whether competition authorities should change the standards and be more flexible to evaluate efficiencies, thus increasing the probability of efficiency claims to be successful. The second one is whether competition authorities should consider a broader set of efficiencies, thus increasing the sample of mergers in which efficiencies may play a role in their review.

3.2.1. Is there a need for changing the standard to review efficiencies?

101. As the previous subsection discussed, competition frameworks are shaped in a way in which authorities are required to apply the same rigorous standards to efficiency claims as they do to anticompetitive effects. Benefits and harm arising from a merger must be assessed, often in a forward-looking scenario that involves uncertainty, with tools that are robust enough to ensure the existence of effects that are directly attributable to the merger. While there is room for developments, both in terms of practice and in economic analysis to facilitate the definition and quantification of efficiencies, the few cases in which they have succeeded are a good starting point. These few cases, however, are concentrated in few jurisdictions, with many others having no recent history of merger decisions where efficiencies played a significant role.

102. Moreover, there are multiple situations in which competition authorities and courts review efficiencies in antitrust proceedings, in addition to merger control. Efficiency claims can be brought, for instance, to exempt or justify horizontal agreements that would otherwise be prohibited as anticompetitive. In said circumstances, similar criteria apply, and the test appears to be the same. Box 8 summarises the EU approach to them. These experiences may contribute to understanding the type of evidence required to substantiate efficiencies in merger control.

103. Considerations regarding the standard of proof and the type of evidence are similar to those discussed in merger control. Issues such as the necessity for extended time frames to observe dynamic effects, challenges in quantifying both harms and efficiencies, the allocation of the burden of proof to the parties, the requirement for credible and verifiable metrics, and the overall perception of the amount and strength of evidence required for authorities to recognise efficiencies are also debated in the context of horizontal agreements. However, there appears to be more instances of successful (and unsuccessful) claims in this framework.[56] Thus, it is possible that both competition authorities (or courts) and merging parties learn from those experiences and apply them in the context of merger control. While this does not change the sample of mergers in which efficiencies could play a key role, it may contribute to increasing the probability of the claims being successful in said cases.

Box 8. Efficiencies in horizontal agreements in the EU

Article 101(3) of the Treaty of Functioning of the European Union (TFEU) imposes four conditions to consider that an anticompetitive agreement generates economic benefits that outweigh the negative ones and thus, can be exempted from the general prohibition (contained in Article 101 (1) TFEU):

- It must contribute to improving the production or distribution of goods or to promoting technical or economic progress.
- Consumers must receive a fair share of the resulting benefits.
- The restrictions must be essential to achieving these objectives.
- The agreement must not give the parties any possibility of eliminating competition in respect of substantial elements of the products in question.

While the first criterion relates to the type of efficiencies, the second one can be equated as the need to pass on to consumers and the third and fourth ones as the merger-specific (in the context of agreements, indispensability) and substantiality criteria. In other jurisdictions outside the EU, provisions are relatively similar (according to the welfare standard applied by each jurisdiction).

The EU Guidelines on horizontal co-operation agreements provide a framework for the analysis of these criteria, including relevant examples to illustrate how certain agreements are capable of meeting the criteria and the type of evidence expected. In 2023, the Guidelines were updated. Among the main amendments, a chapter on sustainability agreements was added, clarifying agreements that generally fall outside the scope of Article 101 (1) TFEU and providing a safe harbour for sustainability standardisation agreements that could be exempted given their efficiencies.

Moreover, the Commission issued Regulations No. 1217/2010 and 1218/2010 (together known as the Horizontal block exemption regulations - HBER) to exempt R&D and specialisation agreements for which it can be assumed with sufficient certainty that they satisfy the conditions of Article 101(3) TFEU. In 2023, the HBERs were revised to expand their scope and increase clarity and flexibility in certain matters.

Source: European Commission Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements, Text with EEA relevance, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52023XC0721(01).

3.2.2. Is there room for considering a broader set of efficiencies?

104. One question that is often debated is whether there is room to consider more efficiencies, for instance, by broadening the set of efficiencies that can be examined by competition authorities and courts and including other public interests in the assessment.

105. Overall, competition laws around the world seek to protect the competitive process in the markets from companies that seek to distort it. Leaving aside the discussion on the welfare standard, competition laws generally aim at promoting efficiencies in the markets. While these key principles are central to competition laws across the world, these laws in some jurisdictions may also include objectives that go beyond. Broader considerations such as equality, growth, market integration, trade, among many others, are underlined as part of the goals in competition laws in different jurisdictions.[57] The claim for a wider framework has recently been proposed by those who consider that industrial and other economic policies should be relevant for the enforcement of competition laws, and that competition policy should be more aligned to other economic and social goals.

106. Previous OECD work (2016[31]) has discussed public interest considerations in competition law, and more specifically in merger control. While a solid competition policy framework may help in itself achieve sustainable development objectives, laws can also expressly pursue a number of additional public interest goals and, according to each jurisdiction's priorities, the goals may have different weights. One clear example of this is the CMA's approach to competition policy supporting other economic policies. In one of the most recently launched CMA proposals for adopting strategies to review mergers that drive growth, investment and business confidence, Sarah Cardell explained that competition policy in the United Kingdom should be grounded on the fact that "*a robust, independent competition regime should both drive growth and investment, and uphold consumer interests*" (Cardell, 2025[32]).

107. When public interests are included in competition laws, they may be explicit objectives or principles in the law, they may be embedded within the criteria to enforce the law or they may be part of other provisions, including exemptions, for the application of the laws. Similarly, there are many instances in which these public considerations may be taken into account in the review of a merger. There may be

explicit requirements in the law to consider them within the merger assessments, as well as exemptions from competition authority reviews or provisions for other public bodies to review the transaction independently. In the latter case, the most common institutional setting is for the other public bodies to be able to override the decision of the competition authority on public interest grounds. When competition authorities are the ones evaluating these public interests, they are usually required to balance all these other interests against the competition harm, an exercise that can be done as part of the general assessment of the effects of the merger, or simultaneously with the evaluation of efficiencies.[58]

108. The debate for including, or not, public interests in competition law is far from reaching consensus. On one side, it is argued that their inclusion may generate risks of legal uncertainty and unpredictability in addition to burdens for competition authorities and courts. Moreover, that these objectives can be pursued better by other alternatives such as direct policies or sectoral regulations, with different implications in terms of independence and accountability of the relevant authorities. Ultimately, most competition authorities unlike sector regulators are independent of governments and are held accountable by parliaments and citizens instead. On the other, commentators in favour of competition law including broader objectives argue that competition policy should be seen as part of the tools for the design of better economic policies and should aim at fitting better to the jurisdiction's socio-economic characteristics and economic goals (OECD, 2016[31]). Recently, within the EU framework, the discussion has been livelier than ever. Draghi in his report on the future of European competitiveness (2024[33]), claimed that competition policy should support the new industrial deal and made calls for considering broader public interests in enforcement, including in merger control.

109. For instance, the Draghi Report claims that merger regimes in Europe should allow for an "innovation defence", where competition authorities consider more the efficiencies towards the strengthening of companies' ability and incentives to innovate to justify the transaction.

110. While this is already the case in most EU jurisdictions, as competition authorities consider innovation and dynamic efficiencies as possible efficiencies to be claimed by parties, the Draghi Report's call is for switching the backward-looking approach that focuses on existing market shares and assessing the efficiency claims in light of future potential competition and innovation, where parties can pool resources to achieve the scale needed to compete and innovate at a global level.[59] This latter may mean giving more weight to dynamic efficiencies and is linked to other proposals such as considering out-of-market efficiencies or efficiencies that strengthen the internal markets through national champions,[60] supporting other non-competition goals.

111. To avoid improper uses of this defence, Draghi (2024[33]) links its proposal for a stronger consideration of innovation efficiencies to the imposition of remedies. Particularly, he proposes competition authorities to impose commitments to levels of investment that can be monitored ex post. Although this approach seems somewhat novel, in practice it relates to the discussion presented in the previous section on supporting efficiencies analysis with remedies to guarantee the materialisation of the efficiencies claimed. Placing the issue on the table, however, can influence dialogue and attitudes, making competition authorities and courts more willing to face the challenges of evaluating efficiencies.

112. Draghi's proposal is only one example of ways of including other interests in merger control. This topic has already been in the OECD's agenda as some OECD jurisdictions evaluate public interest factors (such as financial stability, public security and media plurality) and other economic policies (such as industrial and trade policies) as part of their considerations in merger control, although not always within the framework of efficiencies.[61] Box 9 presents some examples of EU jurisdictions where legal frameworks contain other goals, such as broader economic progress, which imply that the approval of a merger can be subject to an analysis of non-competition aspects, not necessarily linked to efficiencies. Similar considerations are done in other regions as well. Moreover, there is a set of additional regulations, including sectoral ones when applicable, that review mergers and can block them. These include foreign direct investments and subsidies screenings.

Box 9. Public interest considerations in selected EU merger regimes

In some European jurisdictions like Austria, France, Germany and Spain, an anti-competitive merger may be cleared in light of broader economic benefits that include growth, industrial development, competitiveness and employment, as applicable according to each legal framework.

- In Germany, the Bundeskartellamt may clear a merger if the companies prove that the concentration will also have pro-competitive effects on a different market ("improved market")[1]. Moreover, the Ministry for Economic Affairs may grant ministerial authorisation to a merger if it benefits the economy as a whole or produces an overriding public interest.
- In Austria, the competition authority shall not prohibit a merger, even if the requirements for prohibition are met, if the economic advantages substantially outweigh the disadvantages of the merger. Economic benefits include growth, innovation and full employment as key goals of the Austrian economic policy, as well as an increase in prosperity and improvement in the citizens' quality of life through job security, income growth and fair income distribution.
- In France, the Ministry in charge of the economy has the power to evoke a case entrusted to the competition authority and evaluate it according to several criteria (except competition) such as industrial development, competitiveness and employment.
- In Spain, broader objectives include national defence and security, protection of public health, free movement of goods and services within the national territory, protection of the environment, promotion of R&D and the maintenance of the sector regulation objectives.

The prior references are only examples of the different ways in which authorities have taken a broader approach to balancing the negative impact on competition with benefits, according to the particularities of their legal frameworks.[2] In some cases, the broader approach arrives from considering competition benefits impacting different groups of agents, while in others it comes from accepting non-competition benefits.

Notes: [1] The improvements must outweigh the negative effects on the market in which dominance is created or strengthened ("impaired market"); [2] In 2016, the EU Merger Working Group produced a report on public interest regimes in the European Union, which contains examples and comparisons between the different approaches. See: https://competition-policy.ec.europa.eu/system/files/2021-06/merger-working-group_public_interest_regimes_en.pdf.

113. Public interest considerations can either form part of merger control assessment or can feature in the overall decision-making process. Within the framework of efficiencies, there has also been room for public interests and broad economic objectives. Authorities operating total welfare standards are more open to accepting a broader set of efficiencies, including out-of-market efficiencies and non-competition benefits (see Box 10). In these cases, mergers can be approved or not challenged when they harm competition in a relevant market, if there is a greater benefit arising from the transaction that benefits a different set of agents (e.g. consumers in other markets) or the economy as a whole. In these cases, however, the criteria to assess efficiencies remains the same and the standard applicable is equivalent to standard competition efficiencies.

Box 10. Examples of jurisdictions considering a broad set of efficiencies

In New Zealand, an otherwise prohibited merger may be authorised if the merger will result in a public benefit that justifies approval. Similarly, the Australian authorisation regime for mergers provides for the possibility for mergers to be cleared on public benefit grounds, including whether the merger would assist an Australian industry to compete more effectively in overseas markets or for environmental benefits.

In the UK, while efficiencies within the competition assessment are required to benefit consumers, out-of-market efficiencies are also taken into account. The CMA considers relevant customer benefits in merger assessment first, when considering whether to refer a merger for Phase 2 investigation and, second, when analysing remedies. Relevant customer benefits do not necessarily need to affect rivalry in the relevant market where a significant lessening of competition is identified. In these cases, the CMA is able to consider a broader range of efficiencies, including in other markets or to society more generally. The CMA's approach also includes considering efficiencies (such as investment benefits) within remedies, as long as parties are willing to "*putting forward robust remedy proposals and well-evidenced claims around benefits*"[1].

In other regions, similar considerations also exist. In Argentina, for instance, merging parties can claim benefits of a merger on variables such as employment, income, import substitution, investment, environmental care and gender policies. For example, in the Natura/Avon merger, the parties argued that a relocation of the merged entity's production to Avon's plant in Buenos Aires after the merger would generate direct and indirect employment, on top of reducing transport costs from imports and demand for foreign currency.[2]

In Korea, the Supreme Court overturned the Seoul High Court ruling in the Samic Musical Instrument-Young Chang (2004) case based on the ground that while reaching a decision regarding efficiency gains, a company's production, sales, research and development as well as the 'balanced development of the national economy' should all be considered in a comprehensive manner.

Notes: [1] Cardell, S. (2025) New CMA proposals to drive growth, investment and business confidence, https://competitionandmarkets.blog.gov.uk/2025/02/13/new-cma-proposals-to-drive-growth-investment-and-business-confidence; [2] See Decision No. RESOL-2024-362-APN-SIYC#MEC.

114. Within jurisdictions that consider public interests in efficiencies or allow for out-of-market efficiency claims, the main argument for taking them into account is the flexibility that this approach may have for considering everyone's welfare and economic and social realities of the jurisdiction. So, why exclusively focus on competitive effects if this may imply overlooking at broader societal impacts? Moreover, not doing so may represent a missed opportunity for holistic policy and further alignment.

115. In jurisdictions with a narrower approach to efficiencies, competition authorities and courts seem to be more conservative on whether efficiencies are the best place to account for these broader objectives. In most cases, there still is some scepticism on whether incorporating the assessment of broader considerations within efficiencies might make the claims more uncertain, even more difficult to review, while increasing the risk of undermining the primary competition analysis (Kokkoris, 2023[34]).

116. Arguments against a broader view of efficiencies, for instance, highlight the need for a general equilibrium analysis or at least a multi-market approach to fully assess the merger's economic impact, a task that is often complex or even impractical (Rose, 2020[27]; Baker, 2019[35]). They pose the question on whether the use of resources is worth considering (and even feasible), as striking the right balance between competition and non-competition efficiencies (or, more generally, effects) is not easy and broader efficiencies would in general be subject to "*at least the same procedural barriers as in-market claims*". This means that they would still be rarely accepted by competition authorities and courts. The OECD's 2023

roundtable on out-of-market efficiencies (OECD, 2023[5]) highlighted that the debate over the merits of these efficiency claims remains unresolved. Resource-constrained authorities, in particular, face added complexity and costs in evaluating such claims, which increases the perceived risk of not intervening in more potentially anticompetitive mergers. Furthermore, public interest considerations might open the door to decisions being influenced by political dynamics rather than the economic rationale, diluting the primary objective of merger control. Whether the debate will resolve in favour of more flexibility from competition authorities and courts in evaluating efficiencies or in a call for merging partied to base their claims on more robust evidence remains to be seen.

117. Sustainability is a key example for the discussion on whether competition authorities need to consider efficiencies more, as well as on the challenges that doing so brings. A number of competition authorities including Austria, Greece, the Netherlands and the United Kingdom have taken concrete actions to incorporate environmental benefits into their competitive assessments of mergers or agreements (OECD, 2021[3]). In practice, they have done so by relying more on qualitative rather than quantitative estimates of the environmental benefits, although estimates have already been provided in a handful of cases (see Box 11).

118. One of the questions that is often up for debate is whether these efficiencies deserve a special treatment or should be considered as part of the general assessment of efficiencies. In the former case, it appears to be room for a more lenient approach to their assessment while in the latter the criteria remain the same. The main practical challenges arise in these cases: environmental benefits seem to be less quantifiable, thus less verifiable, and they require a longer time to materialise, thus failing to be timely. In jurisdictions ruling out out-of-market efficiencies, the additional challenge is whether and how to take into account collective benefits that impact society as a whole. The debate continues: some authorities have argued that environmental crises require special treatment for environmental efficiencies while others still raise significant concerns about the effectiveness of approaching them through merger review, both in achieving environmental goals and on the effects on competition (OECD, 2023[5]).

119. A broader conclusion emerges. There is growing advocacy for expanding merger analysis beyond competition, with efficiencies analysis as a key avenue. Yet, the debate persists on whether compromising practicality, predictability and feasibility would undermine the core objectives of merger control. More so, whether is worth doing it instead of following more targeted approaches for pursuing those other public interests that may result more effective.

Box 11. Environmental efficiencies in merger control

Some mergers may harm competition but have a positive impact on the environment. If this is the case, merging parties may claim this impact, and the assessment may need to consider efficiencies to determine if the environmental benefits can offset the potential competitive harm. According to the reviewing jurisdiction's legal framework, these may be considered within the usual framework for evaluating efficiencies in the competitive assessment, within a balancing of interests approach or within an assessment that is separate of the analysis of the competitive effects.

Within the competitive assessment

In the Aurubis/Metallo merger in 2020, the EC evaluated the possibility of the transaction generating green innovation efficiencies. The parties, active in different levels of the copper value chain, claimed that the transaction would have positive environmental benefits through technology transfers within the merged firm. They argued that Metallo had specific expertise in the use of more sustainable recovery technologies that could be used to decrease Aurubis' need for mining extraction for producing Copper. The EC concluded that, while it was possible that improved metal extraction could materialise under certain assumptions, the assumptions themselves were not verifiable, and that the merger specific criterion was not met. Ultimately, the efficiencies did not play a role in the EC's decision to clear the merger.

Balancing of public benefits and detriment

In October 2023, the ACCC granted authorisation with remedies for the acquisition of Origin Energy by Brookfield and MidOcean impacting different markets within the energy and gas industries. While the ACCC identified potential harm from the resulting vertical integration, it also considered that the transaction would likely result in an accelerated roll-out of renewable energy generation, leading to a more rapid reduction in Australia's greenhouse gas emissions. In balancing benefits and detriment, the ACCC concluded that the proposed acquisition was likely to result in public benefits that would outweigh the likely public detriments and decided to approve the transaction subject to remedies.

As part of a separate assessment

In jurisdictions such as South Africa and COMESA, sustainability considerations, including efficiencies, are dealt with through public interest considerations that are evaluated independent to the competition effects of the transaction and could modify the competition authority's or court's decision.

The draft updated regulations published by COMESA in 2023 aims at making the separation between both analyses more explicit. According to draft, the Competition Commission should carry out separate substantial lessening of competition and public interest tests. Additionally, it states that the Commission must place a greater weight on the substantial lessening of competition test relative to the public interest tests, where the Commission may consider if the merger affects public interest in the Common Market, including environmental protection and sustainability considerations.

Sources: European Commission Case No. M.9409 – Aurubis/Metallo Group Holding; ACCC (2023) Merger authorisation number: MA1000024; Draft COMESA Competition and Consumer Protection Regulations 2023, https://comesacompetition.org/wp-content/uploads/2024/01/CCC-Draft-Proposed-Amendments-the-Regulations-shared_stakeholders.pdf.

4. Concluding remarks and future outlook

120. When reviewing mergers, competition authorities and courts recognise that, while most mergers inherently reduce competition, they can also provide benefits to the merging parties, which may positively impact efficiency in the market. That is why in most jurisdictions, mergers that harm competition may be permitted if the resulting efficiency improvements outweigh the anticompetitive effects, although the criteria to assess them varies.

121. While most merger regimes contain provisions allowing competition authorities and courts to consider efficiencies in the assessment of mergers, efficiencies that prevail as a defence or rebuttal are rare in practice, as is their acceptance by competition authorities or courts. Only in very few situations, are efficiencies a relevant argument within the decision-making process of the authority, although they may feature as part of the authority's assessment of the effects of the transaction. In cases where efficiencies have been accepted, they usually are considered together with other arguments, meaning that they may not really be the main reason for the authority's decision.

122. The paper showed that competition authorities adopt varying approaches towards efficiencies, shaped by their legal frameworks and experiences. Although the types of efficiencies accepted are generally similar, some authorities place greater emphasis on certain efficiencies over others. This largely depends on the timing of their consideration (as part of the overall assessment of the competitive effects of the mergers, others consider them within a staged approach) and whether they require pass-on of benefits to consumers, even if partial. Generally, merger guidelines are clear and illustrative of the authorities' approaches and preferences.

123. Incorporating efficiencies into merger reviews has proven to be difficult in practice. On one side, there could be trade-offs between the different types of efficiencies, and on the other, there are significant practical measurement challenges. As merging parties are the ones best placed to substantiate efficiencies, in all jurisdictions, the burden to prove efficiencies lies with the merging parties. Simultaneously, authorities' growing experience and the expanding economic toolkit available to evaluate effects raises expectations about future cases where there is greater consideration of efficiencies.

124. Criteria to assess efficiencies also seem to be well-established. Generally, authorities require efficiency claims to be merger specific and verifiable, which includes considerations on how likely and timely their materialisation is, and how substantial they are. Less common is the requirement to prove pass-on to consumers, whether within the relevant market, to consumers in other markets, or to other agents in the economy. This latter depends on the welfare standard applied in the review.

125. When efficiencies form part of the assessment, they almost never are the most relevant argument for a merger decision. Reasons why this happens are multiple, including practical complexities in gathering evidence to substantiate them; proving merger-specificity; and demonstrating that the efficiencies will be passed on to consumers, when required. All these complexities co-exist in a world where there is evidence ex-post that efficiencies from mergers are limited, short in duration or do not end up occurring, and academic studies that conclude that efficiencies tend not to materialise in highly concentrated markets, which is precisely where merging parties often claim them. There is a perceived predisposition from

competition authorities and courts to accept efficiencies raised once significant competition concerns have been identified.

126. Taken together, these factors suggest that when an efficiency defence is raised, the likelihood of it being well-substantiated and sufficient to influence the decision of the competition authority or court is not necessarily high. However, this could be understood as part of the need for a thorough analysis to avoid Type II errors that may lead to excessive concentration in the markets, particularly given that few efficiencies materialise or do not get passed-on to consumers. As rigorous as having to prove anticompetitive effects, claiming efficiencies also necessitates more than vague assertions and entails a substantial reliance on different sources of evidence, typically complementary in nature, that can endure testing.

127. The paper showed examples where competition authorities and courts have recognised the existence of efficiencies, including dynamic ones. It also showed cases where, although rejected, the analysis of the efficiencies claimed results in lessons that can be learnt from the assessment and evidence required to meet certain criteria. Cases also include consideration of efficiencies in other antitrust areas, such as horizontal agreements. The paper observed that it is becoming more common for authorities to consider efficiencies as part of their assessment of remedies.

128. Literature remains suggestive of limited efficiencies arising from mergers. It is relevant to note, however, that these studies are mostly based on mergers in the United States and, to a lesser extent in Europe, and often include transactions reviewed more than 10 years ago. More updated studies that review mergers in fast-changing industries may be required to update or confirm these findings. The heterogeneity of outcomes, which usually depends on the type of industry and assumptions made to build the econometric model, would benefit from further empirical work. Similarly, ex post audits or reviews on whether and how efficiencies materialised are also an alternative that authorities themselves can follow. While this requires longer-term planning on the side of the authorities, they are aimed at making better decisions in the future.

129. There are ongoing discussions about whether efficiency analysis could help consider other public interests, like green technology transitions, protecting national industries and fostering innovation. The discussions include how the efficiency analysis might also be a useful tool for competition policy to support industrial and innovation strategies. Simultaneously, higher levels of concentration in many industries seem to be a call for tougher merger control that leaves less room for speculative claims of efficiencies.

130. While the debate continues on whether to consider other public interests or economic policies in evaluating a merger's benefits to consumers and the economy, it appears that the type of transactions, tests and standards used to evaluate efficiency claims should remain unchanged. This keeps efficiencies still as the exception rather than the rule. Even literature advocating for more efficiency analysis remains cautious, suggesting current requirements should stay and should be made available for mergers that don't entrench a dominant position, especially in tradable sectors where international competitors still exercise some competitive pressure.

131. Opportunities to include more efficiencies may also be linked with remedies. As Draghi (2024[33]) proposed, innovation-related efficiencies should be linked to commitments on investments. This applies to other types of efficiencies as well, as remedies may be a way to compensate for concerns on their verifiability, rather than simply lowering the standards to prove them or switching the burden of proof to the authorities.

Endnotes

[1] Where two parties that may be able to work most efficiently by co-operating refrain from doing so because of concerns that they may give the other party increased bargaining power.

[2] The Guidelines state that the Commerce Commission "*will consider any adjustment to the respective weighting of the distribution of benefits and detriments on a case-by-case basis, in a similar manner to how we assess likelihood and duration*", https://comcom.govt.nz/__data/assets/pdf_file/0012/91011/Authorisation-Guidelines-June-2023.pdf

[3] The FNE states in its guidelines that in all cases, fixed cost reductions will be less likely to be considered than variable or marginal costs, since the latter are more likely to be passed on to consumers. However, the guidelines highlight that fixed costs may still have a role if they benefit consumers, as could occur in markets where dynamic competition makes it feasible for fixed costs reductions to translate into greater innovation or increased variety of products. Guidelines available in Spanish at: https://www.fne.gob.cl/wp-content/uploads/2012/10/Guia-Fusiones.pdf. Similar statements are included in merger guidelines in Europe.

[4] E.g. Guidelines in different European jurisdictions, including the EC, are explicit on this preference.

[5] See for example cases COMP/M.8677 – Siemens/Alstom and COMP/M.7758 – Hutchison/Wind.

[6] Some articles describing some the practical challenges to measure and claim efficiencies, focusing on dynamic ones, include (Kwoka, 2015[10]) and (OECD, 2008[1]).

[7] (Salop and Culley, 2014[46]) explain why the elimination of double marginalisation has been considered as a competitive benefit of vertical mergers and present a list of cases in the United States. Nilausen (2023[13]) presents a similar, more updated exercise for Europe.

[8] See CMA (2021) Merger Assessment Guidelines, Chapter 8: Countervailing Factors, https://assets.publishing.service.gov.uk/media/61f952dd8fa8f5388690df76/MAGs_for_publication_2021_--_.pdf

[9] Case COMP/M.4057 – Korsnäs/AD Cartonboard, 2006.

[10] In addition to the possibility to consider "rivalry-enhancing" efficiencies as a countervailing factor that may prevent a significant lessening of competition arising from a merger. See CMA (2018) Merger Remedies, Paras 3.14 to 3.24, https://assets.publishing.service.gov.uk/media/5c12349c40f0b60bbee0d7be/Merger_remedies_guidance.pdf

[11] CMA (2024) Final Report on the Anticipated Joint Venture Between Vodafone Group PLC and CK Hutchison Holdings Limited Concerning Vodafone Limited and Hutchison 3G UK Limited, https://assets.publishing.service.gov.uk/media/6756f990f96f5424a4b877b7/Final_report_9_December_2024.pdf

[12] This was the case in Romania in 2020 when the competition authority (RCC) analysed the CIT One/ BCR, BRD, Raiffeisen Bank transaction. The RCC concluded that the remedies proposed by the parties did not address one of its concerns in the downstream market. However, when analysed jointly with the efficiencies claimed by the parties, the RCC concluded that the transaction would allow the merged company to compete better for the remaining demand in the market, as well as to improve services in terms of quality and price, and authorised the transaction subject to the remedies proposed. See Decision No. 49 of 2020.

[13] In the United States, the burden of persuasion always remains with the plaintiff. However, for rebuttals, including efficiencies, the burden of production of evidence shifts to the merging parties. See e.g., *United States v. AT&T, Inc.*, 916 F.3d 1029, 1032 (D.C. Cir. 2019) and *United States v. Baker Hughes, Inc.*, 908 F.2d 981, 983 (D.C. Cir. 1990).

[14] Such as Chile, Colombia, the European Commission and the United States.

[15] The EC, in its guidelines, states that "*evidence relevant to the assessment of efficiency claims includes, in particular, internal documents that were used by the management to decide on the merger, statements from the management to the owners and financial markets about the expected efficiencies, historical examples of efficiencies and consumer benefit, and pre-merger external experts' studies on the type and size of efficiency gains, and on the extent to which consumers are likely to benefit*" (European Commission, 2004[12]).

[16] This is the case in the US. The 2023 Merger Guidelines discuss verifiability within a context of reliable methodologies and evidence that do not depend on subjective predictions. The Guidelines acknowledge that efficiencies are often speculative and difficult to verify and quantify. Therefore, they give relevant weigh for merging parties to present a reliable methodology for verifying the claimed efficiencies to give them the appropriate credit. This may include support on historical data, internal documents or information from other market participants.

[17] This was the case in FTC v. Illumina, Inc; Grail, Inc, No. 23-60167 – Document: 00517004249, where the parties used the testimony of Illumina's chief medical officer as the only single support evidence for the analysis done by an economic expert hired by the parties. For the court, the lack of supporting documentation or analysis made the claim vague, speculative and unsupported.

[18] This has been explicitly acknowledged in merger guidelines, such as those from the EC and the CMA.

[19] This was the approach followed by the United States Department of Justice and CADE in Brazil when evaluating innovation efficiencies claimed in the John Deere/Monsanto merger. After having analysed innovative dynamics in the markets, both authorities concluded that it was the head-to-head competition between the merging parties that had spurred innovation and quality improvements and that any claim that the transaction would increase innovation would contradict historical behaviour. If anything, the merger would likely result in the elimination of innovation rivalry by the two leading innovators in the relevant market. The parties withdrew the transaction as no path of clearance was evident in some reviewing jurisdictions. See DOJ v. Deere & Co. & Precision Planting LLC Case: 1:16-cv-08515 and CADE's Ato de Concentração nº 08700.000723/2016-07.

[20] Canada's merger regime until 2023 required the Competition Tribunal to conduct a trade-off analysis, weighting anticompetitive effects with quantitative efficiencies presented by the parties. This meant that efficiencies being substantial was associated with a quantitative exercise able to demonstrate that efficiencies outweighed harm. In most of the cases, the exercise was done from an accounting perspective, based on Williamson's framework to quantify consumers and producers' surplus (see Box 6 for more details on Canada's approach to efficiencies).

[21] This was the case in T-Mobile NL/ Tele2 NL., Although the EC had previously concluded that the transaction would not significantly impede effective competition, it analysed the efficiencies claimed by the merging parties, related to internalisation of roaming fees (elimination of double marginalisation). When reviewing whether the efficiencies were verifiable, the EC analysed historical data on roaming costs (2015-2017) and forecasts for 2018. Based on its analysis, it concluded that the efficiencies were likely to materialise in the magnitude claimed by the parties. See Case No. COMP/M.8792 – T-Mobile NL/Tele2 NL.

[22] In the T-Mobile/Sprint merger, one of the key arguments that led the court to conclude that the efficiency rebuttal was verifiable was the fact that it was based on the "Montana Model", a modified Network Engineering Model that T-Mobile used in its ordinary course of business to predict congestion and capacity thresholds for maintaining the quality of its service. (In other words, the Montana Model was created by adapting the ordinary course Network Engineering Model to account for both the advent of 5G and Sprint's future standalone performance). The fact that T-Mobile employees expressed satisfaction with the ordinary course model at trial and deemed it to be reliable to the point that it served in the past for the company to avoid congestion, was key for the court to validate the Montana Model as sufficient evidence of the verifiability criterion. The conclusion was supported by T-Mobile's Vice President of Network Technology testimony and explanations on the functioning of the model, as well as the defendants' economic expert testimony and quantifications. While the robustness and verifiability of the model were criticised by the plaintiffs, the court did not consider that this sensitivity would significantly affect the estimations made.

[23] In the T-Mobile/Sprint merger, the court also analysed past mergers to consolidate its position on the verifiability of the efficiencies. According to the court, "*Defendants' claimed efficiencies are verifiable in significant part because of T-Mobile's successful acquisition of MetroPCS in 2013*" and review some considerations on the evolution of prices and the number of customers of the merged entity after said transaction (see State of New York et al v. Deutsche Telekom AG et al, No. 1:2019cv05434 - Document 409 (S.D.N.Y. 2020)). In addition, the court also viewed the previous acquisition of MetroPCS by T-Mobile as helpful to T-Mobile and Sprint's claimed efficiencies because "*T-Mobile actually underpredicted the efficiencies that would result from the MetroPCS merger,*" and considered that both integrations would follow similar structure and strategy. In the United Kingdom, the CMA has also based its conclusions on the verifiability of efficiencies in past transactions for example Sainsbury/Asda case in 2019 while referring to those in the Ahold/Delhaize, Tesco/Brooker and Sainsbury's/Argos transactions that took place in 2015.

[24] In 2010 in Colombia, the Superintendence of Industry and Commerce acknowledged efficiencies claimed by companies aiming at integrating their operation models to provide port services in one of the biggest terminals in the country. According to the parties, the transaction aimed at improving the services provided and reducing costs associated with the different processes taking place in the terminal. The most relevant evidence that allowed the competition authority to verify the efficiencies claimed was a study carried out by an independent consultant. The study estimated the potential gains of the transaction by using indicators of costs, times and efficiency of another port in the country that had been through an analogous integration. The Superintendence concluded that the expert was able to demonstrate that, post-merger, both ports would be in relatively similar conditions, thus that the comparison served as a natural experiment to show that the proposed transaction would enable the merging parties to achieve all the claimed savings. See Superintendencia de Industria y Comercio, Resolución No. 0255 de 2010.

[25] For example, in FTC v. Staples, the merging parties argued that the transaction (a merger between Staples and Office Depot, sellers of office products) would yield significant cost savings. The court, however, noted that the companies were in a significant expansion phase and that such savings would be achieved through the associated economies of scale and scope in any event. Internal documentation and statements of the merging parties during the process ended up being relevant for the court to conclude that the costs savings were not merger specific. FTC v. Staples, Inc., 970 F. Supp. 1066 (D.D.C. 1997).

[26] In the FTC V. Heinz case, the parties argued that the transaction would result in lower operating costs, cost savings in salaries and better recipes that would make products more attractive and would allow for more sales at lower prices given that production of the better products would now happen in a more efficient plan. While at first accepted by the district court, the appeal court concluded that the efficiencies were not merger-specific because parties failed to demonstrate and the lower court did not study why Heinz could not obtain the same or better results by simply investing more on product development and promotion,

which could, simultaneously, cost less than acquiring a competitor. FTC v. Heinz, 116 F. Supp. 2d 190 (D.D.C. 2000), rev'd 246 F.3d 708 (D.C.Cir. 2001).

[27] In Tata/Thyssenkrupp, a transaction prohibited by the EC, the authority evaluated efficiencies claimed and dismissed them on the grounds that parties had sufficient scale individually to implement best practices and reach the same outcomes as they would if the merger took place. Among others, the merging parties argued that the transaction would allow them to generate synergies in the purchasing of raw materials. For the EC, the two companies were in a position to implement good practices and achieve the same savings. Their size and the fact that Tata was part of a wider international group involved in raw material purchases on a global level were sufficient to consider that their starting point already allowed them to seek better terms or extract the best possible ones and achieve the efficiencies claimed as standalone entities. Case COMP/M.8713 – Tata Steel/Thysenkrupp.

[28] In the telecoms sector, issues such as spectrum allocation may play a key role in analysing what are the possible transactions that could take place in the market and how long it would take for those to happen.

[29] For example, in Nynas/Shell, the EC analysed capacity increases and reduction of reliance on external sources of supply as part of the efficiencies claimed by the parties. The EC concluded that these were merger specific as the alternative plans that could be viable were placed outside of the EEA and would have limited potential impact on capacity improvements in the region. See COMP/M.6460 – Nynas/Shell.

[30] State of New York et al v. Deutsche Telekom AG et al, No. 1:2019cv05434 - Document 409 (S.D.N.Y. 2020).

[31] Case No. COMP/M.6497 – Hutchison 3G Austria/Orange Austria.

[32] This was the case in the Aurubis/Metallo, Dow/DuPont and Ineos/Solvay mergers in the EU. See COMP/M.9409 – Aurubis/Metallo, COMP/M. 7932 – Dow/DuPont, and COMP/M.6905 – Ineos/Solvay.

[33] As is the case for the EC.

[34] In the US, the criterion to review efficiencies linked to pass-through is wider, allowing merger parties to demonstrate that the efficiencies do not merely benefit themselves, but that, within a short period of time, they "prevent the risk of a substantial lessening of competition in the relevant market". This approach also allows to prove efficiencies to other agents within the same relevant market (e.g. workers or upstream sellers/buyers). While the pass-through is already wider than just consumers, from decisions such as United States v. Philadelphia National Bank, it seems to be evident that out-of-market efficiencies are ruled out in the United States. This was most recently underscored in the 2023 Merger Guidelines.

[35] The CMA's Guidelines on Merger Assessment state that rivalry-enhancing efficiencies, considered when defining if a merger will lead to a substantial lessening of competition "*must be relevant to the process of rivalry in the market in which the CMA is considering the SLC question*". On the other hand, when considering relevant customer benefits, "*the CMA is able to take into account a broader range of efficiencies and benefits from a merger to consumers and to society more generally*". This latter will be further discussed in section 3.2.

[36] In the 2007 Inco/Falconbridge case, the EC concluded that parties were unable to demonstrate that the ultimate customers would directly benefit from the efficiencies since those were manifesting in the upstream levels of the relevant market (mining and processing levels of production of nickel, copper, cobalt and other precious metals). Case COMP/M.4000 – Inco/Falconbridge, 2007.

[37] For example, in the 2016 Fnac/Darty merger in France, the French competition authority analysed the price dynamics in the three years prior to the transaction. It concluded that due to the stability in prices shown by all agents in the relevant market, it could not be demonstrated that costs savings would result in price decreases (Case No. 16-DCC-111, 27 July 2016). Similarly, in the United States, in FTC v. Staples,

the Court rejected the efficiencies claim based on, among other considerations, the fact that parties' projected pass through was significantly higher than their historical pass-through rate (2/3 v. historic 15-17%). See *Fed. Trade Comm'n v. Staples*, Inc., 970 F. Supp. 1066, 1090 (D.D.C. 1997).

[38] In US v. Anthem, for example, the parties have claimed a 99% pass-through rate of the efficiencies claimed. However, Anthem's internal documents contradicted this by discussing "*ways to keep those savings for itself*", particularly listing seven alternatives in which pass-through to consumers was considered last. See United States v. Anthem, Inc., 855 F.3d 345.

[39] While other economic policies and public interests may be included in the general objectives of laws, exceptions and other provisions, this section will only focus on their consideration as part of the merger assessment, particularly through the analysis of efficiencies.

[40] The situation is different for guidelines on vertical mergers, as competition authorities and courts' positions are more positive on efficiencies in this kind of transactions.

[41] This is the case, for example, of the Merger Control Guidelines of the Autorité de la concurrence (2020).

[42] Case T-342/07, Ryanair v. Commission, 2010, E.C.R.

[43] This has been the case at least in the last three versions of the US Merger Guidelines.

[44] E.g. FTC v. H.J. Heinz Co., 246 F.3d 708, 720 (D.C. Cir. 2001) and FTC v. Univ. Health, Inc., 938 F.2d 1206, 1222 (11th Cir. 1991).

[45] See the English version of the Bundeskartellamt's Guidance on Substantive Merger Control, https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Leitlinien/Guidance%20-%20Substantive%20Merger%20Control.pdf?__blob=publicationFile&v=1

[46] Case No. COMP/M.4439, Ryanair/Aer Lingus (2007).

[47] Case T-342/07 Ryanair Holdings plc v European Commission, 6 July 2010, II-03457.

[48] See, for example, the Tigre/Condor merger, decision No. Ato de Concentração 08700.009988/2014-09.

[49] Innovation efficiencies have been claimed by merging parties in the Bradesco/Banco do Brasil/Santander/Caixa Econômica/Itaú; Reckitt Benckiser/Hypermarcas; and Linx/Stone cases, all of them rejected as innovations were not merger specific.

[50] While this discussion is outside the scope of this paper, it is important to note that the risk of type II errors could be reduced in cases where competition authorities have the possibility to intervene ex-post, either through monopolisation or abuse of dominance provisions or deeming the merger as an anticompetitive agreement.

[51] See, for example, (Charpin, 2021[42]) that analyses efficiency gains from a large transport merger (Trandsdev/Veolia) in France; (Kwoka, 2015[20]) and (Coate, 2016[36]), which study multiple transactions in the US; and (BEREC, 2018[47]) that studies post-merger market developments, particularly price effects in the mobile markets in Austria, Ireland and Germany. Finally, in the process of the Merger Reform in Australia, Professor Graeme Woodbridge, former chief economists of the ACCC wrote a report on the Economic Issues in Assessing Merger Control in Australia. This report contains a detailed review on literature about empirical evidence of the effects of mergers on the enforcement margin, including efficiencies. See Attachment A in ACCC (2024) ACCC Submission to the Treasury – Competition Taskforce Merger Reform – Consultation Paper, https://www.accc.gov.au/system/files/merger-reform-submission.pdf

[52] See (Coccorese and Ferri, 2020[44]), (Bernile and Lyandres, 2019[43]), (Brahma, Boateng and Ahmad, 2018[45]), (Kulick, 2017[41]), (Blonigen and Pierce, 2016[38]), and (Kwoka and Pollitt, 2010[40]), among others.

Moreover, (Röller, Stennek and Verboven, 2000[37]) made a still relevant literature review on empirical work aimed at estimating efficiencies gains from mergers on company performance, cost reductions, market power and pass-on to consumers.

[53] For example, (Demirer and Karaduman, 2024[39]) that focuses on power plants in the US, as does (Kwoka and Pollitt, 2010[40]), found positive effects of mergers on productive and dynamic efficiency.

[54] For example, the CMA guidelines on Merger Analysis recognise that "*some studies have found that firms do not fully realise the expected synergies from their mergers and, even for the synergies that they do realise, firms do not always pass on the benefits to their customers*." The guidelines conclude that this evidence indicates the "*difficulty involved in accepting prospectively that a merger is likely to lead to efficiencies".* See CMA (2021), Merger Assessment Guidelines, https://assets.publishing.service.gov.uk/media/61f952dd8fa8f5388690df76/MAGs_for_publication_2021_--_.pdf. Moreover, In Australia, the ACCC strongly based its submission to the Competition Taskforce's Merger Reform Consultation on available literature and evidence that indicates that mergers do not reliably result in efficiencies and that there are often other means to achieving those efficiencies that have less adverse effects on consumers and the economy. The ACCC suggested that "*even if efficiencies arise from a merger, this does not guarantee that those beneficial effects would outweigh the adverse effect of any consequent increase in market power"*. See: ACCC (2024). ACCC Submission to the Treasury – Competition Taskforce Merger Reform – Consultation Paper, https://www.accc.gov.au/system/files/merger-reform-submission.pdf. Both cases illustrate how economic literature (theoretical and empirical) does impact authorities' attitudes towards matters such as efficiencies.

[55] See (Kuoppamäki and Torstila, 2015[23]) and (Marquardt, 2022[19]) for explanations of situations where efficiencies put forward can be used as evidence of increased market power, what the authors called the "efficiency offence".

[56] See the different contributions received for the 2023 Roundtable on "Out-of-market Efficiencies in Competition Enforcement" where competition authorities presented experiences in claiming efficiencies in horizontal agreements, .

[57] See (ICN, 2007[48]).

[58] There are notable differences in some jurisdictions where the evaluation of public interests is separate from the competition test. This is the case in South Africa and COMESA.

[59] Recent decisions by the Italian Competition Authority (AGCM) may be seen as consistent with this approach, as they place explicit emphasis on innovation and other dynamic effects of transactions in terms of efficiencies, even when these are not necessarily verifiable through quantification. In the Raiffeisen banks merger, the AGCM concluded that any savings from the rationalisation of the organisation and its distribution network, as well as from the elimination of duplicative processes and the streamlining of others, would free resources that could be used in investments in innovation and enhancement of products and services offered to customers, driven by the digitalisation process that the sector was going through. See C12138 - Cassa Centrale Raiffeisen Dell'Allto Adige/Gruppo Bancario Cooperativo Delle Casse Raiffeisen.

[60] With the argument that monopolizing the home market may contribute to the firm becoming more competitive in international markets. As discussed previously, this idea, however, has been widely discredited as economies of scale and scope do not necessarily translate into economic success (OECD, 2023[5]).

[61] For a discussion on public interest considerations in merger control, see (OECD, 2016[31]). For a discussion on the interaction between competition and industrial policies, see (OECD, 2024[49]).

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