

Coordinated effects analysis and the assessment of efficiencies: response to CMA draft revised guidance on the approach to assessing rivalry-enhancing efficiencies in merger cases by Bokhari, Ennis, Vega, and Yan[†]

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This public comment relates to the role of efficiencies (or competition-enhancing efficiencies) in merger review. The role of efficiencies in merger review is simultaneously under consideration in the EU and the UK. The points raised in this comment are being submitted to both the EU and UK consultations.

To provide a reasoned basis for our comment, we rely on our recent paper, [Bokhari et al. \(2026\)](#) titled, “*Merger efficiency and coordinated effects: nothing to sneeze at? Evidence from cough and cold medicines in the Philippines.*” We encourage public citation of this paper.

The CMA is proposing to give merger efficiencies a more prominent and structured role in its competitive assessment, focusing on “rivalry enhancing” efficiencies that are merger specific,

[†]This document is in response to the Competition and Markets Authority’s Consultation document, dated 3 June, 2023 “Mergers – Draft revised merger efficiencies guidance”. The views expressed here are of the authors and not necessarily represent those of Loughborough University, University of East Anglia, Philippine Competition Commission, E.Ca (a BRG company), or of BRG.

timely, likely, and sufficient, and that benefit UK customers. The key concept underlying the modification is that of rivalry-enhancing efficiencies: merger specific benefits that make the merged firm a stronger competitor, such as through reductions in marginal costs or increased ability and incentive to innovate. The rationale for focusing on reductions in marginal costs is the presumption that marginal cost reductions will be passed on, ultimately, to customers as lower prices.

We broadly support consideration of efficiencies, but caution that efficiencies should not be assessed independently of coordinated effects. Our conclusions are based on an econometric analysis of the cough and cold medicines segment in the Philippines following the Pfizer–GSK joint venture in over-the-counter medicines, a transaction that was approved in multiple jurisdictions, including the EU. The results suggest that efficiencies and coordinated effects should be evaluated jointly when assessing the overall impact of a merger on consumers.

- **Asymmetric Efficiencies.** Efficiencies can exist, but may not be present for all merging parties and may not necessarily translate into lower prices across all products sold by the merged entity. In our analysis, we find efficiency gains for Pfizer but not for GSK. Consistent with this, Pfizer’s prices declined by 6.57%, while GSK’s prices increased by about 3.25% in the cough and cold segment.
- **Overall Price Increase Through Coordination.** Further, an overall price increase is possible despite efficiency gains, owing to an increase in market power and/or coordination with non-merging firms following the merger. In our analysis, we found that the prices of a close competitor, Sanofi, with whom GSK and Pfizer have multimarket contact, increased by 8.55% due to coordination. Coordination, where firms set prices above competitive or non-cooperative oligopoly levels to increase joint profits, need not require communication or explicit collusion. Economic theory predicts that such outcomes become easier to achieve and sustain when there are fewer independent decision-makers, and a merger necessarily reduces their number.
- **Coordination Assessment.** Based on our recent empirical findings, but also on prior empirical and theoretical literature, we recommend that competition authorities pay serious attention to coordinated effects and assess them alongside unilateral effects. For instance, just as diversion ratios and UPP methods, particularly those

that account for efficiencies, are used to assess the internalization of margins within the merging parties, these methods should be extended to assess the internalization of profits arising from coordination with leading or closely competing non-merging firms. Such calculations, or even more rigorous merger simulations, could provide a more realistic indication of firms' incentives to coordinate and a better measure of the likely price effects should coordination occur.

In [Bokhari et al. \(2026\)](#), we combine reduced-form evidence on prices with structural estimation of demand- and supply-side parameters to provide econometric evidence on price changes, marginal cost reductions, and, importantly, the extent of post-merger coordination. Specifically, following the well-established identification approach of [Miller and Weinberg \(2017\)](#), we estimate a coordination parameter that captures the internalization of profits between the merging parties and their main international competitor, Sanofi.

First, reduced-form estimates indicate that Pfizer's prices declined by 6.57%, while prices for GSK products did not decrease and, in fact, increased by 3.25%. More importantly, the prices of Sanofi, a firm with which GSK and Pfizer have multimarket contact, increased by 8.55%. By contrast, we find no increase in prices for Unilab, a large regional firm. Second, based on marginal costs backed out from the structural demand and supply estimation, we find evidence of a reduction in Pfizer's marginal costs of about 9.43% but not for GSK's marginal costs. These findings are consistent with [Affeldt et al. \(2021\)](#) who suggest that merger efficiencies are broadly unachievable at levels needed to counteract expected margin changes from market power.

Finally, using the demand-side estimates, we estimate coordination parameters between the merging parties and the two main competitors, Sanofi and Unilab. We believe such estimates are particularly valuable for efficiencies analysis because they allow us to assess the extent to which firms internalize each other's profits post-merger. Consistently across a range of alternative demand models, we find evidence of coordination with Sanofi but not with Unilab. In the main specification, the estimated coordination parameter, which can take values between 0 and 1, is 0.945 between the merging parties and Sanofi, but 0 between the merging parties and the Philippine firm Unilab. One possible explanation for the difference in the estimated coordination parameters is that the international firms have multimarket contact, whereas the local firm has very limited multimarket contact with the merged entity.

These findings suggest that efficiencies and coordinated effects should not be evaluated independently, since mergers affect not only marginal costs, but also the incentives and ability to coordinate post-merger, and hence are relevant for the assessment of rivalry-enhancing efficiencies.

One way to operationalize coordinated effects is to extend the logic that underlies existing screening tools and merger simulations. Current approaches such as diversion ratios, GUPPI, and UPP focus primarily on unilateral effects and, in some cases, explicitly account for efficiencies. Conceptually, these approaches can be viewed as evaluating whether

$$\text{Price Effect} \approx \text{Unilateral Effects} - \text{Efficiencies.}$$

However, if a merger changes firms' incentives to coordinate, then a potentially important component is omitted. A more complete framework would recognize that

$$\text{Price Effect} \approx \text{Unilateral Effects} - \text{Efficiencies} + \text{Coordinated Effects.}$$

In such circumstances, it may be informative to evaluate the extent to which firms internalize the profits of leading or closely competing non-merging firms. Such calculations, or more rigorous merger simulations, could provide a more realistic indication of firms' incentives to coordinate and a better measure of the likely price effects should coordination occur. More generally, a growing literature has demonstrated that coordinated effects can be modelled and quantified (see, for instance, [Ciliberto and Williams \(2014\)](#), [Miller et al. \(2021\)](#), [Mansley et al. \(2023\)](#)). Competition authorities and merging parties can therefore assess coordinated effects alongside unilateral effects and efficiencies. Just as diversion ratios, GUPPI, and merger simulation techniques are routinely used to assess unilateral effects, analogous approaches can be used to evaluate incentives for coordination between the merged entity and non-merging competitors.

We believe the sorts of coordination estimates we advocate can add substantial information to efficiency calculations. They add value to merger investigations by helping to distinguish those cases in which mergers might reduce marginal costs and benefit customers overall from those in which marginal costs might fall but ensuing coordination effects would lead to raised market-wide prices. Our paper, and the literature more broadly, are increasingly

bringing this point to the fore. We consequently believe that guidelines should not give the impression that the default interpretation of a reduction in marginal cost is that it would lead to a beneficial market outcome; competition authorities can and should evaluate potential quantitative impacts of coordination in conjunction with potential impact of efficiencies.

REFERENCES

- Affeldt, Pauline, Tomaso Duso, Klaus Peter Gugler, and Joanna Piechucka**, “Assessing EU merger control through compensating efficiencies,” Technical Report 3961906, SSRN 2021.
- Bokhari, Farasat A. S., Sean F. Ennis, Carlos Juan Paolo Vega, and Weijie Yan**, “Merger efficiency and coordinated effects: nothing to sneeze at? Evidence from cough and cold medicines in the Philippines,” SSRN Working Paper 6169147, SSRN 2026.
- Ciliberto, Federico and Jonathan W. Williams**, “Does multimarket contact facilitate tacit collusion? Inference on conduct parameters in the airline industry,” *RAND Journal of Economics*, 2014, 45 (4), 764–791.
- Mansley, Ryan, Nathan H. Miller, Gloria Sheu, and Matthew C. Weinberg**, “A Price Leadership Model for Merger Analysis,” *International Journal of Industrial Organization*, 2023, 89, 102975.
- Miller, Nathan H. and Matthew C. Weinberg**, “Understanding the Price Effects of the MillerCoors Joint Venture,” *Econometrica*, 2017, 85 (6), 1763–1791.
- , **Gloria Sheu, and Matthew C. Weinberg**, “Oligopolistic Price Leadership and Mergers: The United States Beer Industry,” *American Economic Review*, 2021, 111 (10), 3123–3159.