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The recent focus on sustainability in the context of coordination agreements and in state aid cases¹ has now spread to merger control.² This Today's Agenda article addresses how sustainability fits into the merger assessment framework and what we can learn from environmental economics and the economics of climate change to quantify the effects of mergers on sustainability.



The merger control framework

Sustainability can play a role in merger proceedings in two related ways: the theory of harm, and/or a so-called ‘green efficiency defence’.

Theory of harm

First, authorities may raise sustainability concerns in the theory of harm. For instance, if the focal product of the merger is a recycled material, the authority may argue that consumers will be harmed post-merger. The *Aurubis/Metallo* (2020) case provides a good example of how this applies in practice. Here, the parties were both purchasers of copper scrap and the European Commission’s concern was that, following the merger, the two parties would pay less for copper scrap as a result of their increased purchasing power. The lower price for the recycled product post-merger would mean that the entire supply chain would be less incentivised to collect it.³ This would be a deterioration of the production cycle and lead to higher CO₂ emissions, due to a substitution away from scrap to primary copper.

Moreover, sustainability can also play a role in assessing the effects of a merger. For example, in *Dow/DuPont* (2017) and *Bayer/Monsanto* (2018) the Commission looked into the effects on incentives of developing new and better-quality products.⁴ In particular, the Commission analysed the incentives to ensure, post-transaction, the emergence of more environmentally friendly products in the agro-industry market.⁵

Green efficiency defence

Second, the question of sustainability may arise in the assessment of merger efficiencies. There is, in principle, no economic basis for excluding green efficiencies from the conventional efficiency defence. Just as with other efficiencies, these can benefit consumers and, to a large extent, be quantified and hence weighted against a potential price increase post-merger.⁶ Currently, there are very few cases where an efficiency defence has been used successfully. In *Aurubis/Metallo*, for instance, while the Parties claimed that the combined entity would be capable of producing a new technology that would result in additional metal recovery and environmental benefits, this argument was not material in the eventual clearing of the merger. The Commission considered that the claim was not verifiable, and that the new technology was unlikely to arise in a timely fashion and was not transaction-specific.⁷

That is not to say, however, that a green efficiency defence could not hold. The recent interest from authorities in reflecting on the role of competition policy in helping to solve the climate challenge makes it likely that the next attempt at a green efficiency defence will be treated seriously, and have the opportunity to shape case law.

Environmental economics and the economics of climate change

But for environmental considerations to play any role in merger control, the effects need to be quantified. This is where the field of competition law can benefit from the field of climate change economics. This offers a wide range of quantification methods to assess sustainability effects and quantify their benefits.

Measuring environmental benefits

A recent report commissioned by the Netherlands Authority for Consumers and Markets and the Hellenic Competition Commission discusses the broad analytical toolkit from environmental economics that can be used to measure environmental effects.⁸ However, some of these tools (e.g. hedonic pricing or survey-based methods such as conjoint analysis and contingent valuation) look only at current consumers’ willingness to pay—which, in the context of environmental externalities, is inherently conservative.⁹

Other methods are much more comprehensive in taking into account environmental externalities (such as avoided abatement cost or damage cost pricing). However, these require the Commission to take a stance on whether out-of-market and future benefits to consumers can be considered, and how these gains should be weighed against any loss of competition.¹⁰

Putting the right weight on the future

To quantify the total sustainability effects of a merger, future effects would need to be estimated and then discounted back using an appropriate discount rate. This exercise involves several considerations.

- The usual timeframe of two or three years for merger efficiencies to be realised will underestimate the magnitude of any environmental benefits.¹¹
- Forecasting future cash flows is likely to involve a high level of uncertainty, possibly requiring non-traditional modelling techniques to be used—such as focusing on the worst outcome, or considering multiple probability distributions of potential outcomes.¹²
- The discount rate for environmental impacts should be lower than the normal discount rate used in business/project appraisal, to ensure that adequate weight is placed on the longer term and potential losses in the worst-case scenario. However, the exact appropriate discount rate is still up for debate and further research.¹³

1 See speech by Margrethe Vestager, EU Executive Vice President, on ‘The Green Deal and competition policy’, 22 September 2020, <https://bit.ly/2YL99Bq>.

2 Boyce, A. (2020), ‘Green merger efficiencies to be looked at by EU “discussion group.” Régibeau says’, MLex, 18 November. Moreover, the Commission called for contributions by November 2020 on how to take into account sustainability in merger control. See European Commission (2020), ‘Competition Policy supporting the Green Deal: Call for contributions’, 13 October, <https://bit.ly/3tzDocT>.

3 Case M.9409 – Aurubis/Metallo.

4 Case M.7932 – Dow/DuPont; and Case M.8084 – Bayer/Monsanto, para. 3012.

5 Bayer/Monsanto, para. 3011. At para. 3029, the Commission takes the view that the enforcement of rules not strictly related to competition (human health, food safety, consumer protection, and environmental and climate protection) takes place outside the context of the enforcement of the Merger Regulation.

6 See, for instance, Holmes, S. (2020), ‘Climate change, sustainability, and competition law’, *Journal of Antitrust Enforcement*, 8:2, pp. 354–405.

7 Case M.9409 – Aurubis/Metallo, para. 844.

8 Inderst, R., Sartzetakis, E. and Xepapadeas, A. (2021), ‘Technical Report on Sustainability and Competition’, jointly commissioned by the Netherlands Authority for Consumers and Markets (ACM) and the Hellenic Competition Commission, January. See, also, Hanley, N. and Barbier, E.B. (2010), *Pricing Nature: Cost-Benefit Analysis and Environmental Policy*, Edward Elgar; and Baarsma, B. and Rosenboom, N. (2015), ‘A veritable tower of Babel: on the confusion between the legal and economic interpretation of Article 101(3) of the Treaty on the Functioning of the European Union’, *European Competition Journal*, 11:2–3, pp. 402–425.

9 An example relating to improved animal welfare (rather than environmental improvements) showed that consumers had a relatively low willingness to pay. This was the case for the Dutch exploding chicken case where the ACM found that consumers were willing to pay a maximum of 0.92 euro per kg. This was not sufficient to balance against the price increase caused by the agreement and hence the agreement was not allowed. ACM (2014), ‘Economische effecten van “Kip van Morgen”’, October.

10 In the Netherlands, for example, the ACM, in its ‘National Energy Agreement’ (2013), used a prevention cost method whereby the benefits of reduced greenhouse gas emissions from an agreement to close down several coal-fired electricity plants were expressed in terms of environmental costs prevented. See ACM (2013), ‘Analysis of the planned agreement on closing down coal power plants from the 1980s as part of the Social and Economic Council of the Netherlands’ SER Energieakkoord’, 26 September.

11 Indeed, the mismatch between long-term climate benefits/risks (of at least a 10- to 20-year window) and society’s focus on the short term is a

Conclusion

Sustainability is likely to play an increasingly important role in merger control. Similar to 101 TFEU cases, the debate is slowly moving towards the question of how to incorporate this element efficiently and effectively. For this, we have the benefit of an already well-equipped toolkit that is used in environmental economics and the economics of climate change.

widespread phenomenon—for example, when looking at sustainable finance where fund managers are primarily remunerated on short-term performance.

¹² See, for instance, Heal, G.H. and Millner, A. (2014), 'Uncertainty and Decision Making in Climate Change Economics', *Review of Environmental Economics and Policy*, 8:1, pp. 120–137.

¹³ For example, the UK government, as part of its 2020 review of the Green Book—which sets out HM Treasury guidance on how to appraise and evaluate policies, projects and programmes—is considering commissioning an expert review into whether the social discount rate (SDR) should be adjusted for projects that affect the environment. Economics literature also offers various views on how to estimate the discount rate for environmental effects. Giglio et al. (2015), for example, suggest that the term structure of the discount rate for climate change abatement investments should be upward-sloping—i.e. higher rates for a longer horizon—but with the risk-free rate as the upper bound. Giglio, S., Maggiori, M., Stroebel, J. and Weber, A. (2015), 'Climate change and long-run discount rates: Evidence from real estate', Working paper, National Bureau of Economic Research. See also Oxera (2020), 'A formula for success: reviewing the social discount rate', *Agenda in focus*, September, <https://bit.ly/2YLaU1u>.

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