Oxera response on the draft guidance on the application of the Chapter 1 prohibition in the Competition Act 1998 on environmental sustainability agreements

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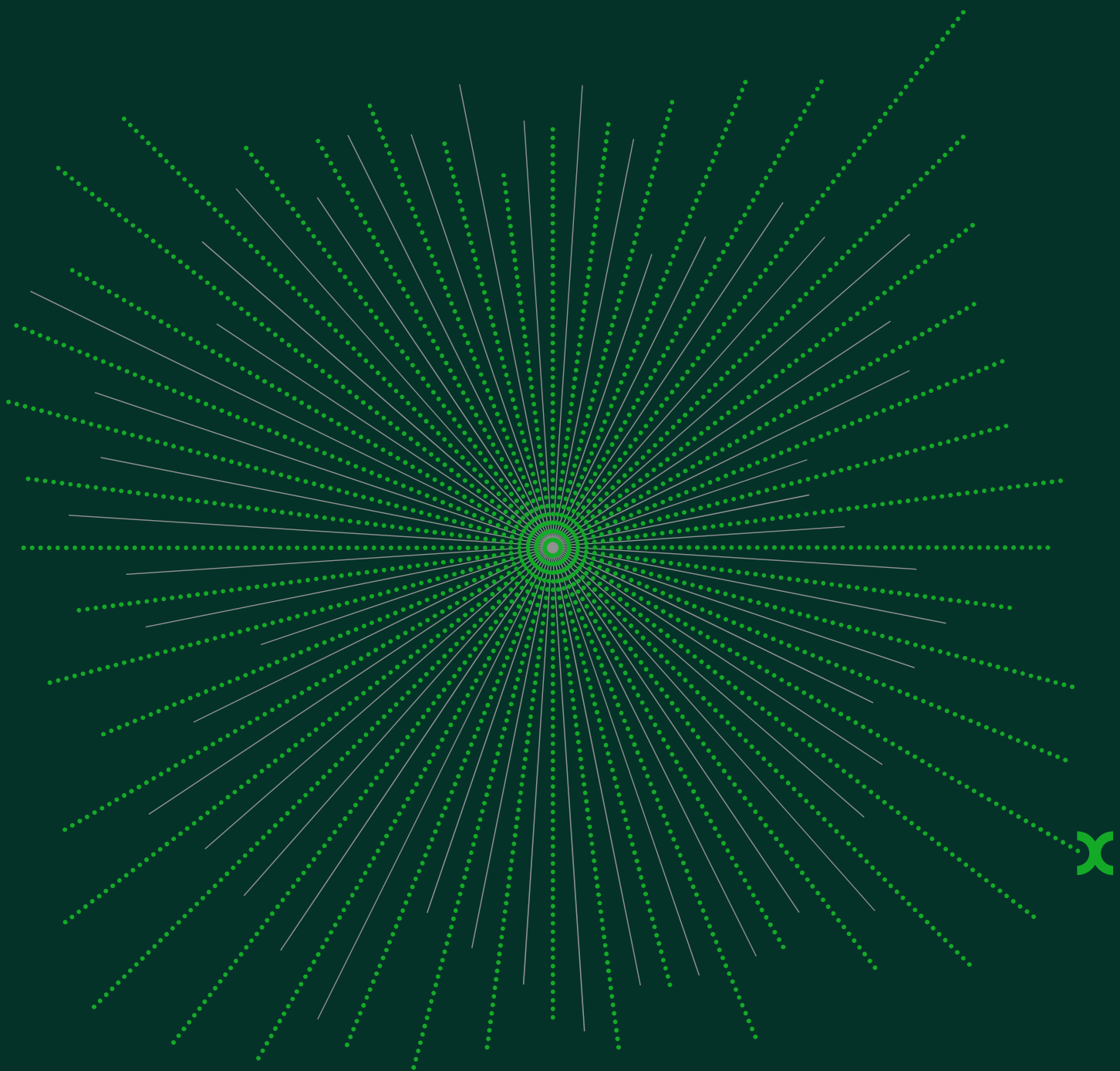

Contents

1 Introduction

Oxera welcomes the opportunity provided by the CMA to comment on the draft guidance on the application of the Chapter 1 prohibition in the Competition Act 1998 on environmental sustainability agreements.

Below, we set out our thoughts on the draft guidance from an economics perspective. Economics already plays an important role in assessing whether agreements between firms can be accepted on efficiency grounds—and this will continue to be the case with sustainability agreements. We welcome the new guidance from the CMA as it provides more clarity on important economics aspects such as quantifying the benefits to consumers.

In providing our review, we have kept in mind the need to strike a balance between legal certainty (through a rules-based approach) and a flexible, case-by-case approach based on appropriate economic analysis and evidence.

We appreciate that each case needs to be assessed on its own merits, and hence we welcome the ongoing guidance offered by the CMA and the protection from fines where parties approach the CMA to discuss their agreement in advance and the CMA does not raise any competition concerns (or where any concerns that were raised by the CMA have been addressed).[1] In addition to the open-door policy by the CMA, which paves the way for constructive discussions, it would be useful if the CMA would be open to engage with the economics team at an early stage on exactly what evidence would be required to help parties to proceed more efficiently.

In section 2 below we discuss the scope of the climate change agreements as defined by the CMA and the requirement of indispensability. Section 3 then focuses on the benefits of sustainability agreements and climate change agreements more specifically. Here, we highlight certain elements of an assessment such as the categories of benefits, the need to quantify these, and relevant considerations when quantifying the benefits.

[1] Competition and Markets Authority, Draft guidance, para. 1.15.

2 Scope of climate change agreements and indispensability

2.1 Scope of climate change agreements

In the guidance, the CMA establishes climate change agreements (CCA) as a subset of environmental sustainability agreements with particular rules when it comes to balancing benefits against potential harm. The examples given on CCA on the reduction of emissions are clear. However, further clarity on other points would be helpful. For example, it is not clear whether agreements that reduce the use of raw materials (or promote the sustainable use of raw materials) are also captured by climate change agreements (as in the case of the Dutch competition authority, the ACM[2]). It is also unclear whether such an agreement can benefit from being a climate change agreement only if the use of raw materials that is reduced by the agreement results in lower emissions.

2.2 Indispensability

We note paragraphs 5.8 and 4.9 (on ancillary restraint), where the CMA considers that an agreement is considered indispensable if:

parties can demonstrate that [...] the agreement enables the parties to achieve the benefits more efficiently (eg at reduced cost or more quickly). (para. 5.8)

In order to be considered an ancillary restraint, it is necessary to examine whether the agreement would be impossible to carry out absent the restriction in question. However, the fact that the operation or the activity covered by the agreement would be more difficult to implement, **or less profitable without the restriction concerned**, does not in itself make that restriction objectively necessary and thus ancillary. (para. 4.9) [emphasis added by Oxera]

Further guidance would be helpful on whether this means that if the activity were less profitable without the agreement the condition of indispensability would also be met.

[2] Authority for Consumers and Markets (2021), 'Second draft guidelines Sustainability agreements', January, para. 8: 'Environmental damage can be described as damage to the environment in the production and consumption of goods or services. Environmental damage results, for example, from the emission of harmful air pollutants and greenhouse gases, and from the waste of raw materials.'

3 Guidance on benefits and quantifying them

3.1 Introduction

This section provides our comments on the guidance on benefits to consumers and how to quantify them. We highlight several elements that we consider to be relevant such as the categories of benefits (section 3.2), the need to quantify these (section 3.3), and considerations when quantifying the benefits, both in the case of greenhouse gases (section 3.4) and in relying on consumers' willingness to pay (section 3.5). Lastly, we share some considerations when quantifying and discounting the benefits for future consumers (section 3.6).

3.2 Different categories of benefits

In the first instance, we note that it would appear to be reasonable to align the benefit categories across the European Commission and the CMA, to the extent that this is feasible.[3] Doing so would give corporates that are active in both in the UK and the EU a single framework when it comes to the types of benefit.

It appears in paragraph 5.15 and beyond that the CMA intends to align with the draft revised Horizontal Guidelines from the European Commission in making a distinction between individual use benefits (in para. 5.17), indirect use benefits (in para. 5.18) and collective benefits (in para. 5.20). It would be helpful to confirm this interpretation of the alignment between the UK and EU guidelines (especially on the collective benefits, as this paragraph is part of a different subsection in the guidance document).

Additional guidance would be useful as follows. Irrespective of whether the CMA is referring to the equivalent of the collective benefits as used by the European Commission in paragraph 5.20 or whether that paragraph applies to all categories of benefits, we would appreciate more guidance on when the CMA considers that consumers affected by the restriction are substantially the same, or substantially overlap. To us, it is unclear when this threshold of substantial overlap is met.

[3] Notwithstanding that the two have different policies in place when it comes to climate change agreements. See European Commission (2022), 'Antitrust: Commission invites comments on draft revised rules on horizontal cooperation agreements between companies', press release, 1 March, https://ec.europa.eu/commission/presscorner/detail/en/ip_22_1371

The CMA uses an example that appears to come from the European Commission Decision of 23 May 2013 in Case AT.39595, *Air Canada/United Airlines/Lufthansa*.

However, this case does not—at least not in the public decision—provide the required guidance on when there is substantial overlap between the consumers affected and consumers in related markets, nor what 'considerable commonality' (see quote below) implies in practice and how corporates should show this.

In this case, **the parties were able to demonstrate considerable commonality** between the Frankfurt-New York passengers – the group that suffers from the competitive harm under Article 101(1) of the Treaty and enjoys the in-market efficiencies – and the passengers who fly on related behind and beyond routes and, thus, benefit from the reduction of the double marginalisation on those trips. The Commission preliminarily accepted to credit the out-of-market efficiencies accruing to the passengers who travel both on the Frankfurt-New York route and related behind and beyond routes in its assessment under Article 101(3) of the Treaty.[4] [emphasis added by Oxera]

3.3 When is there a need to quantify the benefits?

As discussed further below, the requirement of quantifying the benefits of the agreement (to balance them against the potential negative effects of the agreement) can be challenging. We therefore welcome the CMA making the point that:

[i]n many cases, it will not be necessary to quantify the benefits precisely. In particular, this will be the case if it is clear that the benefits are of a sufficient scale to offset (or more than offset) the harm to competition, for example, because the agreement will only result in a limited price increase or reduction in choice, and it is obvious that the benefits will be significant (paragraph 5.23)

While we appreciate that the CMA is being pragmatic and does not impose an obligation on parties involved to always quantify the benefits, the current guidance may not be sufficiently clear to parties. Specifically, corporates may feel uncomfortable making the judgement call themselves on whether it is clear that the benefits are of a 'sufficient scale'. It could help to provide some examples of where the

[4] European Commission Decision of 23 May 2013 in Case AT.39595, *Air Canada/United Airlines/Lufthansa*, para. 76.

benefits are obviously significant enough to remove the need to quantify them.

An example is the proposed agreement between Shell and TotalEnergies, where the Dutch ACM considered the fair share criterion and decided that, in this case, a quantitative analysis of cost versus benefits was not applicable.[5] The authority did consider that '[t]he application of the fair share criterion does not lend itself for a quantitative estimation of costs and benefits in this specific scenario', and that 'based on a rough estimate, the sustainability benefits clearly outweigh the costs'.[6] In this agreement, the sustainability benefits took the form of storing 22 million tons of CO_2 per annum in depleted gas fields (and hence reducing an equivalent amount of CO_2 emitted in the air).

3.4 Quantifying environmental benefits—greenhouse gases

One of the requirements to benefit from the exemption of the cartel prohibition is the need to demonstrate that the benefits are substantial enough to offset any negative impact on competition.

The CMA states in paragraph 5.25 that 'in relation to greenhouse gas emission reductions, there are established instruments for carbon pricing such as the UK Emissions Trading Scheme, which may be applied to convert the reduction in greenhouse gas emissions into monetary values'. This is helpful. It would also be helpful to provide more guidance, however, as depending on which instrument or methodology one uses, the price for a tonne of CO_2 equivalent can vary substantially.[7]

As we know from our advisory work in relation to climate change, the outcome of quantifying the reduction of carbon emissions depends on the applicable public environmental policy standards, and can change over time. One option would be for the CMA to align its guidance with the methodology used by the UK government. See the box below for details.

[5] Oxera has been supporting the parties on this matter. All information on the case that is provided here is based on public sources.
[6] Authority for Consumers and Markets (2022), 'No action letter for the Agreement between Shell and TotalEnergies regarding a joint marketing initiative for CCS services (project Aramis)', 27 June.
[7] There is a large degree of variation in the prices of carbon allowances and offsets. Price differentials arise on different platforms for pricing and trading carbon units; due to different methodologies (e.g. BEIS' 'target-consistent' valuation approach); as well as with certification of quality. The (unsubsidised) price of negative emission technologies, especially engineering-based technologies, like direct air capture, is likely to significantly exceed traded EU UK or ETS prices until large-scale deployment is achieved.

Specifically, since 2009 the UK government has used the 'abatement cost' method as its approach to carbon valuation for policy appraisal and evaluation.[8] This method is also described, among others, in the report commissioned by the Dutch and Greek competition authorities that the CMA refers to.

Box 3.1 Greenhouse gas emissions values applied by the UK government

Greenhouse gas emissions values ('carbon values') are used across government for valuing impacts on greenhouse gas emissions resulting from policy interventions. They represent a monetary value that society places on one tonne of carbon dioxide equivalent (£/tCO2e). They differ from carbon prices, which represent the observed price of carbon in a relevant market (such as the UK Emissions Trading Scheme). The carbon value projections that are undertaken up to 2050 by the government, and regularly updated, are based on a Marginal Abatement Cost (MAC) or 'target-consistent' valuation approach. This involves setting the value of carbon at a level that is consistent with the level of marginal abatement costs required to reach the targets that the UK has adopted at a UK and international level.

The government uses these values to estimate the monetary value of the greenhouse gas impact of policy proposals during policy design, and also after delivery.

We note that the marginal cost of carbon abatement changes over time—for example, as emission targets change; as the 'quick wins' in decarbonisation are eliminated over time; and as changes in the costs of deploying (new) decarbonisation technologies are experienced.

[8] UK Government (2021), 'Valuation of greenhouse gas emissions: for policy appraisal and evaluation', policy paper, 2 September, www.gov.uk/government/publications/valuing-greenhouse-gas-emissions-in-policy-appraisal/valuation-of-greenhouse-gas-emissions-for-policy-appraisal-and-evaluation

To provide some context, we note that the UK government's valuation of carbon is £252t/CO2e in £2020 prices (central estimate) in 2023, using the abatement cost approach. By way of contrast, the traded price of carbon as per the UK Emissions Trading Scheme is currently around £75t/CO2e.

Source:
(UK government guidance on carbon pricing): UK government (2021), 'Valuation of greenhouse gas emissions: for policy appraisal and evaluation', policy paper, 2 September, www.gov.uk/government/publications/valuing-greenhouse-gas-emissions-in-policy-appraisal/valuation-of-greenhouse-gas-emissions-for-policy-appraisal-and-evaluation

(Current UK ETS pricing on 5 April, using data from ICE): Ember, 'Carbon Price Tracker', https://ember-climate.org/data/data-tools/carbon-price-viewer/

As has been the case in the UK and in other jurisdictions, the methodologies used by governmental bodies to quantify environmental benefits are subject to change, and the environmental policies of national governments are constantly evolving as they set increasingly ambitious targets to help achieve net zero targets. The combination of changes to the methodologies and increasingly ambitious greenhouse gas reduction targets can increase the value that governments place on reducing emissions in later cost–benefit analysis.

A good example of the changing methodologies and the impact that these can have on the outcome of the assessment is the closure of the Dutch coal plants that was assessed by the ACM in 2013. See the case study in the annex.

The case study shows that, if a competition authority assesses the benefits of the agreement (how would emissions change with and without the agreement in the following years?), it also makes sense to consider how public policy (and therefore environmental benefits) would change in the following years.

Therefore, when preparing or scrutinising forward-looking quantifications of environmental initiatives, one could consider not just what types of benefit or cost are likely to occur, but also the different ways in which they could be valued. Anticipating future public policy changes is challenging, but having an awareness of what existing policies are currently under review, or where the politics is heading, can help in making more informed decisions.

As a last point, the CMA also mentions that there are techniques for dealing with uncertainty in appraising these costs and benefits (e.g. sensitivity and scenario analyses—para. 5.25). Here, the CMA refers to the Stern Review: the Economics of Climate Change (2006). The Stern Review is (still) an important source, but its specific values and findings have been superseded by others. We would therefore advise that it would be relevant to refer to research and analysis done by other agencies as well. This includes the UK's Climate Change Committee (CCC), the UN's Intergovernmental Panel on Climate Change (IPCC), and work on biodiversity and habitat loss (e.g. the Dasgupta Review[9]).

3.5 Quantifying benefits through willingness to pay by consumers

Where the agreement results in environmental benefits other than a reduction in greenhouse gases, the benefits can be quantified using a consumer survey that tests willingness to pay (WTP).

A key advantage of consumer surveys is that they can be applied both to products that are already in the market (for example, a certain fuel that is already sold) and to non-market goods (i.e. products or aspects of products that have no monetary price in the market, such as a product being produced in a more environmentally friendly manner).

A first question is which WTP one should consider. Inderst and Thomas (2021) suggested that, instead of looking at 'regular' WTP, we should look at 'reflective' WTP.[10] This represents the monetary amount that a consumer is willing to pay for a product based on additional information provided to them and additional time for deliberation. Often, in the case of sustainability agreements, the reflective WTP is higher than the 'regular' WTP. It is unclear which form(s) the CMA would accept.

A second question is what methods are available for eliciting WTP. A commonly known one is using stated preference that is used across a variety of environmental studies. Within this type, contingent valuation is a main technique (see the box below),[11] but this general method also

[9] Final Report of the Independent Review on the Economics of Biodiversity led by Professor Sir Partha Dasgupta. Commissioned in 2019 by the UK HM Treasury and supported by an Advisory Panel drawn from public policy, science, economics, finance and business.
[10] Inderst, R. and Thomas, S. (2021), 'The Scope and Limitations of Incorporating Externalities in Competition Analysis within a Consumer Welfare Approach', December.
[11] Another, relatively new methodology, is subjective wellbeing (SWB). This involves assessing people's stated experience through surveys. For example, households near to a sewage treatment works that are affected by blight and odour may report lower life satisfaction than a 'control group' further away from the works. This might then be cross-correlated with income information in the area (for the purposes of the SWB methodology) and house price information (if a hedonic approach were used). This approach can capture only use-values and is only really suitable for big and frequent issues that affect people's quality of life.

includes conjoint surveys as used, for instance, by the ACM when assessing the agreement about the *Chicken of tomorrow*.[12]

Box 3.2 The contingent valuation method

The contingent valuation (CV) method is a stated preference approach where respondents are asked directly for their WTP (or willingness to accept compensation) for a hypothetical change in the level of provision of a non-market good. CV is a survey-based stated preference technique that elicits people's intended future behaviour in constructed markets. In a contingent valuation questionnaire, a hypothetical market is described where the good in question can be traded. This contingent market defines the good itself, the institutional context in which it would be provided, and the way it would be financed. Respondents are asked directly for their WTP (or willingness to accept) for a hypothetical change in the level of provision of the good. Respondents are assumed to behave as though they were in a real market.

Source: OECD (2018), "Contingent valuation method", in Cost-Benefit Analysis and the Environment: Further Developments and Policy Use, OECD Publishing, Paris, https://doi.org/10.1787/9789264085169-7-en.

There are a number of advantages to using a stated preference approach in the context of quantifying the benefits to consumers:

- the approach is applicable to almost all non-market goods;
- the approach can capture *all* types of benefit from a non-market good or service, including non-use values (current or future);
- as lots of studies have been undertaken, there are best practice techniques for good survey design and robust valuation;
- online surveys have been increasingly popular, and have enabled biases and bias reduction mechanisms to be tested.

[12] Authority for Consumers and Markets (2014), 'Economische effecten van "Kip van Morgen" Kosten en baten voor consumenten van een collectieve afspraak in de pluimveehouderij', October.

There are, however, a number of challenges when seeking to obtain preferences for climate change abatement using stated preference methods, and more specifically contingent valuation. These relate mainly to the fact that costly action is required now to fight a threat that is uncertain in its impact in future.

3.5.1 Applying the contingent valuation method in practice

When reviewing the WTP from survey responses, the CMA should consider whether the survey is recent enough to capture current WTP, as well as the country the research was conducted in.

Research in the box below shows that it is not possible to rely on the outcome in another country without controlling for any differences with the country of interest, and the fact that the WTP for carbon abatement has increased over the past ten years.

Box 3.3 The latest research on WTP for carbon reduction

Winden et al. (2018) undertake a CV study comparing WTP for climate change mitigation in China and the USA (the world's two largest greenhouse gas polluters). On average, US college students and adults have similar WTP values. Chinese adults' WTP is about three-fifths of US adults' WTP measured in US dollars, while Chinese students' WTP is three-quarters of US students' WTP. Adjusting for the significant difference in per capita income, Chinese adult and student WTP is over twice as high that of their US counterparts. In addition, political ideology for US respondents is found to have a significant influence on WTP even when controlling for other covariates, such as environmental concern and climate change belief.

Carlsson et al. (2021) explore changing attitudes over ten years in the USA, China and Sweden. All three countries exhibit an increased WTP for climate mitigation over time. However, there is considerable divergence in climate attitudes and preferences within countries, particularly the USA. Political polarisation explains part of this divergence.

Source: Winden, M., Jamelske, E. and Tvinnereim, E. (2018), 'A contingent valuation study comparing citizen's willingness-to-pay for climate change Mitigation in China and the United States', *Environmental Economics and Policy Studies*, **20**, pp. 451–475.
Carlsson, F., Kataria, M., Krupnick, A., Lampi, E., Löfgren, Å., Qin, P., Sterner, T. and Yang, X. (2021), 'The climate decade: Changing attitudes on three continents, *Journal of Environmental Economics and Management*, **107**.

3.6 Quantifying future benefits

As some, if not most, of the benefits of a climate change agreement (or sustainability agreements in general) may materialise in the future, one should also consider the future consumers who will enjoy those benefits. We therefore welcome the CMA making the point that it is legitimate to have regard to future benefits, but that they may need to be discounted (para. 5.6).

To quantify the total sustainability effects of an agreement, future effects would need to be estimated and then discounted back using an appropriate discount rate. Two considerations are relevant here.

- Forecasting future cash flows is likely to involve a high level of uncertainty, possibly requiring non-traditional modelling techniques—such as focusing on the worst outcome, or considering multiple probability distributions of potential outcomes.[13]
- The discount rate for environmental impacts would tend to be lower than the discount rate used by corporates in business/project appraisal, if the objective is to ensure that adequate weight is placed on the longer-term and potential losses in the worst-case scenario. This was the approach taken in the Stern Review—i.e. using a low discount rate to incentivise large investments today to prevent future harm from climate change. The approach of using a low discount rate for investments in climate risk mitigation has, however, been challenged by other economists such as William Nordhaus, who argues for the use of higher discount rates to reduce the impact

[13] 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.

on current generations.[14] Accordingly, the appropriate discount rate to apply is still up for debate and further research.[15]

A1 The impact of changes to the methodology of quantifying carbon emissions

In this case study we describe an ex post cost–benefit analysis of the 2013 analysis by the Netherlands Authority for Consumers and Markets (ACM) of an industry agreement to close five ageing coal power plants for environmental reasons.[16]

While the annual environmental benefit was determined to be around €30m at the time of the ex ante evaluation in 2013 (and this was deemed insufficient relative to a projected cost of €75m), we find that the same evaluation in 2018 (a year after all the coal plants closed) would have produced an annual benefit of roughly €375m due to methodological and policy changes. This example clearly shows that the choice of method can have a significant impact on the outcome.

In terms of benefits, the ACM concluded—based on an expert analysis[17]—that the agreement would lead to reductions in carbon dioxide (CO_2), nitrogen oxides (NOx), sulphur dioxide (SO_2) and polluting particles (PM_{10}). However, the ACM did not take into account any benefits from the annual reduction in CO_2 emissions due to a 'waterbed effect' (as explained below). Using the then-preferred evaluation method, the remaining benefits were quantified to amount to €29.3m—substantially lower than the estimated costs. As the estimated costs exceeded the benefits, the ACM concluded that the Closure Agreement constituted an anticompetitive agreement within the scope of Article

[14] See, for example, Nordhaus, W.D. (2007), 'A Review of the Stern Review on the Economics of Climate Change', *Journal of Economic Literature*, **45**:3, September, pp. 703–724.
[15] 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. The 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.
[16] Authority for Consumers and Markets (2013), 'Analysis by the Netherlands Authority for Consumers and Markets (ACM) 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'.
[17] ECN (2013), 'Effecten van versneld sluiten van de vijf oudste kolencentrales'.

101(1) TFEU and did not fall within the exception set out in Article 101(3) TFEU.

While the estimated quantity reductions in emissions (in tonnes) remain unchanged over time, the outcome of ex ante calculations of environmental benefits, and hence the net benefit of the agreement, depends substantially on the rules and policies in place when the ex ante analysis is conducted.[18]

In particular, changes to the following three aspects would have led to a materially different conclusion:

- the valuation method used, i.e. the switch from 'abatement costs' to 'damage costs' evaluations;[19]
- the shadow price estimates (in this case, the monetary value assigned to reducing emissions);[20]
- the treatment of CO_2 emissions.

Source: Noviello, I. and Tey, S. (2022), 'Anticipating future public policy changes in environmental cost–benefit analysis', *Agenda*, March, www.oxera.com/insights/agenda/articles/anticipating-future-public-policy-changes-in-environmental-cost-benefit-analysis/

[18] For the purposes of this ex post evaluation, we have retained the ACM's assumptions about how many kilotonnes of emissions would be cut each year due to the agreement. However, we have updated how the benefit of each kilotonne reduced is valued.
[19] In 2013, when the Dutch government set a national reduction target, the preferred valuation method was based on abatement costs. The ACM therefore relied on abatement cost valuations for NOx and SO_2. However, no abatement cost valuation existed for PM_{10} emissions (as there was no national reduction target for PM_{10} at the time). The damage cost valuation for PM_{10} was therefore used instead. Just a few months after the ACM's analysis in 2013, the Dutch government announced that valuations of emissions should be undertaken using damage costs in all cost–benefit analyses. The only exception would be for evaluations related to climate change (i.e. CO_2 and other greenhouse gases), where abatement costs would still be used. CE Delft (2018), 'Environmental Prices Handbook 2017: Methods and numbers for valuation of environmental impacts'. PB and PBL (2013), 'General Guidance for Cost-Benefit Analysis (English version)'.
[20] The damages cost estimates were updated in CE Delft's Environmental Prices Handbook 2017 and presented as ranges to reflect varying assumptions. Importantly, the newly estimated shadow prices were substantially higher than the 2010 estimates.

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