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Developments in competition impact assessment since 2014 - Issues Note

- by the Secretariat -

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This document was prepared by the OECD Secretariat to serve as background material for the 75th meeting of the Working Party 2 on Competition and Regulation on 12 June 2023.

The opinions expressed and arguments employed herein do not necessarily reflect the official views of the Organisation or of the governments of its member countries.

More documentation related to this discussion can be found at:
<https://www.oecd.org/competition/assessing-and-communicating-the-benefits-of-competition-interventions.htm>.

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1. Introduction*

1. Quantifying the benefits of competition interventions is important to provide a clear and measurable estimate of the value of the activity of competition authorities. Many competition authorities calculate and publish an annual estimate of the expected benefits arising from their activities. These estimates are sometimes published in their annual reports or in a standalone impact assessment or annual performance report.

2. Authorities measure the expected impact of competition interventions for a variety of reasons. In some jurisdictions they are required to show they deliver value for money and generate benefits relative to the budget they receive, and, even when there is no legal requirement, impact assessments increase transparency, accountability and may be used to set priorities (OECD, 2023^[1]). For example, the UK Competition and Market Authority (CMA) has a target to generate at least ten times its costs to taxpayers, measured over a rolling 3-year period (CMA, 2022^[2]), the Romanian Competition Council's 2017-2020 strategy sets a target to generate benefits at least three times higher than its annual budget (Romanian Competition Council, 2020^[3]) and the Lithuanian Competition Council has an objective to generate at least five euros for each euro allocated to its activities.¹

3. The OECD Working Party No. 2 on Competition and Regulation has discussed the evaluation of the activity of competition authorities in a number of roundtables and workshops. In 2005 it held a roundtable on evaluation of the actions and resources of the competition authorities (OECD, 2005^[4]). In 2013 the OECD Working Party No. 2 on Competition and Regulation also surveyed competition authorities on whether they assess the impact of their activities (OECD, 2013^[5]), in 2014 it held a hearing on evaluation of competitive impacts of government interventions (OECD, 2014^[6]) and it published a *Guide for helping competition authorities assess the expected impact of their activities* (hereafter "OECD guide") in the same year (OECD, 2014^[7]).

4. The OECD guide is inspired by the practices of five competition authorities at the time. Almost a decade later, the number of authorities estimating the expected impact of their activities has grown and many use a methodology closely inspired to the OECD guide. Given the interest in this type of assessment, this issues paper discusses the developments in the practices of the authorities and provides the background for the roundtable on "Assessing and communicating the benefits of competition interventions" to be held on 12 June 2023. The roundtable has two main objectives. The first objective is to discuss how practices of competition authorities have evolved since 2014 and to identify areas where assumptions and methodologies used vary across authorities to discuss potential advantages and disadvantages of different approaches. The second objective is to discuss whether there is a need to update the OECD guide and incorporate the latest insights from the academic literature.

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5. The OECD guide and this issues paper focus on the methodology to assess the expected consumer benefits (or savings) arising from the activity of competition authorities. This is sometimes called ex-ante evaluation of competition interventions or impact assessment. It is supposed to be a simple calculation to estimate the expected aggregate savings for consumers, undertaken before or shortly after the decision, using data collected during the investigation.

6. This is very different from ex-post evaluations, which are often undertaken by competition authorities to assess the actual impact of investigations a suitable period after they have completed. Ex-post evaluations have different purposes, use different methodologies, they have different timeframes, and require different resources (e.g., data and amount of work). Ex-post evaluations are not the focus of this paper.²

7. Section 2. provides a brief overview of the methodology set out in the OECD guide, Section 3. discusses the developments in the practices of competition authorities and in the academic literature since 2014 and Section 4. suggests several questions for the discussion. Delegates are invited to reply to the Secretariat in writing by 20 July 2023.

2. The OECD guide

8. The OECD guide sets out the general principles and the methodology for calculating the benefits accruing from the activity of the authorities. It was developed drawing on the experience of five authorities that, at that time, were conducting and publishing a regular annual impact assessment: the Netherlands Authority for Consumers and Markets (ACM), the UK Competition and Markets Authority (CMA), the Competition Directorate General of the European Commission (DG COMP) and the US Federal Trade Commission (FTC) and Department of Justice (DoJ). A few others were undertaking similar assessments, however these focussed on a specific part of the authority's activity or were not done regularly. Examples included the competition authorities of Hungary, Mexico, Germany, and Japan. The competition authority of New Zealand trialled a similar methodology, but it decided not to adopt it because, in their opinion, a large part of the impact of its activity (such as deterrence effects) were not measurable (Davies, 2013^[8]).

9. The methodology described in the guide is designed to minimise data requirements, making use of information collected during the investigation and relying on simplifying assumptions where information is not available. It is supposed to be a simplified bottom-up estimation of the benefits generated by the overall activity of the competition authority based on an individual estimate for each case (see (OECD, 2014^[7]) and (Davies, 2013^[8])).

10. The OECD guide suggests calculating the benefits i) accrued to final consumers, ii) arising from merger and cartel decisions as a minimum (and where possible to also include abuse of dominance, market studies and other activities) and iii) generated by decisions taken over the course of the year (OECD, 2014^[7]).

11. The guide also suggests several guiding principles. A non-exhaustive list includes:

- Using case-specific information where possible to increase the accuracy of the assessment. This information can be collected or estimated during the investigation. Where information is not available, the OECD guide suggests relying on simple default assumptions. These default assumptions are conservative and were based on, but not equal to, the practices at the time of the competition authorities that were active in performing such impact assessments (see Table 2.1).
- Assuming that interventions have a positive impact. This is a reasonable ex-ante assumption as no authority would intervene if it considered that its decision would not generate benefits for consumers.
- Focussing on static consumer benefits (i.e., price), as these are easier to calculate, and an established methodology exists.
- Calculating and publishing the assessment regularly. This assessment and its publication can be used to increase transparency on the activity of the competition authority and accountability showing value for money.
- Presenting estimates both as annual figures and moving annual averages over a three-year period. Given that the number of decisions published in a single year may be affected, for example, by the length of the investigation, annual moving averages are useful to smooth out large differences in the number of decisions published over time.

- Presenting results by type of intervention where possible. The OECD recognises that this may not be always possible for confidentiality reasons. However, where possible, this increases transparency about the activity of the authority.
- Providing point estimates within a range of plausible values. The OECD guide suggests performing a sensitivity analysis using a more conservative set of assumptions and a less conservative set of assumptions.

12. The expected consumer benefits arising from a competition authority's interventions are based on three key inputs: i) size of affected turnover, ii) price effects and iii) duration of the price effect. Expected benefits are assumed to be the percentage price savings caused by the intervention, multiplied by the size of the affected turnover, and multiplied again by the estimated duration of the price effect. Depending on the type of interventions the price savings could either be a price reduction (for antitrust investigations or market studies) or the avoided price increase (for merger control). Where information on the three key inputs has not been collected or estimated during the investigation, the OECD guide suggests using the assumptions in Table 2.1.

Table 2.1. Assumptions set out in the OECD guide

Assumptions	Cartels	Abuse of dominance	Mergers
Size of affected turnover	Ex-ante turnover of the companies under investigation in the affected markets		Ex-ante turnover of all the firms in the affected markets
Price effects	10%	5%	3%
Duration (years)	3	3	2

Source: (OECD, 2014^[7])

13. The OECD guide also recommends that, when publishing their impact assessment, authorities include a clear explanation of the methodology used and its limitations. In particular, authorities should note that the benefits are estimated as static effects due to lower prices. However, competition may also increase innovation and productivity which generate significant benefits for consumers, but they are harder to quantify. The methodology also does not take into account deterrence effects generated by the activity of competition authorities, which can be large.

3. Potential issues for discussion

14. Since 2014 many more authorities have started to routinely calculate expected benefits arising from their activity using a methodology inspired by the 2014 OECD guide. Twelve competition authorities in the EU calculate consumer benefits from competition interventions and the majority follows the OECD guide.³ Among countries outside of the European Union, at least six authorities calculate expected consumer benefits, including the CMA, the FTC, the DoJ, the Brazilian competition authority (CADE) and the Japan Fair Trade Commission (JFTC). Reasons for not calculating or not publishing the benefits of competition interventions include lack of resources, limited data availability or confidentiality concerns.

15. While the key principles of the methodologies used by competition authorities are typically inspired by the OECD guide, there may be instances where their practices deviate slightly. This may be because of many reasons. For example, divergence may be driven by the different characteristics of the different jurisdictions or because the OECD guide did not suggest a specific approach in a certain area. For example, the estimates of benefits may look different across authorities because private enforcement of competition law may be more common in certain jurisdictions (for example, in the United States) compared to others. In addition, estimates can be grouped in different categories (for example, DG COMP distinguishes between anti-competitive agreements and cartels while other authorities may aggregate savings in different ways).

16. It is important to note that, while on the one hand, using common standards to assess the activity of national competition authorities is beneficial because it promotes a deeper understanding of different systems and allows comparison across jurisdictions (Kovacic, Hollman and Grant, 2011^[9]), on the other hand in certain instances it may be reasonable and appropriate for different authorities to use different assumptions, as the characteristics of competition interventions may differ across jurisdictions. Also, methodologies used by authorities are in constant evolution and while the general framework is the same, some authorities have recently updated or clarified some of the assumptions. For example, in 2020 the Spanish competition authority (Comisión Nacional de los Mercados y de la Competencia or CNMC) updated some of the assumptions that were considered too conservative and did not reflect adequately the retail impact of the authority's intervention (García-Verdugo and Gómez, 2020^[10]) and in 2022 the ACM published an update of their methodology (Dijkstra, Kopányi and Van Dijk, 2022^[11]).

17. There are several challenges when considering reviewing the methodology. First, any significant change to the methodology risk to reduce comparability of the results over time. This risk can be mitigated if authorities have data and resources available to recalculate the previous estimates using the revised methodology. However, it may not be desirable to frequently revise old estimates. Second, another challenge is to balance, on the one hand, the need to keep the guide up-to-date and incorporate insights from the economic literature and existing practices of competition authorities with, on the other hand, the original objectives of the guide, which aims at proving a simple, non-resource intensive method to estimate the expected benefits of competition interventions.

18. In the European Union, DG COMP has initiated discussions with the national competition authorities within the European Competition Network (ECN) to explore the possibility to calculate aggregate customer savings for the ECN combining the savings estimates calculated by the national competition authorities (DG COMP, 2022^[12]).

19. The next sections present a non-exhaustive list of topics for the discussion. The list is informed by the information available on the websites of the authorities and on discussions at related workshops.⁴

3.1. Type of interventions

20. The range of activities of competition authorities depend on their specific mandate and it may include antitrust enforcement, merger control, market studies and other advocacy activity (such as input on regulatory changes) and consumer protection enforcement. The OECD guide suggests calculating benefits arising from merger and cartel decisions as a minimum (and where possible to also include abuse of dominance, market studies and other activities). The OECD guide also suggests publishing results by type of intervention where possible.

21. Some competition authorities estimate the benefits of interventions other than antitrust enforcement and merger control. For example, the CMA includes benefits to consumers arising from market studies and consumer protection enforcement.⁵ Given the variety of market studies, the CMA uses *ad-hoc* methodologies that vary from case to case to assess consumer benefits arising from this activity (CMA, 2022_[2]). The ACM includes benefits from market studies and advice on regulatory changes (Kemp et al., 2022_[13]). DG COMP includes in its impact assessment the benefits of informal interventions when benefits arising from the termination or remediation of the conduct of concern can be reasonably attributed to its activity (DG COMP, 2022_[12]).⁶

22. While interventions other than competition enforcement may generate significant benefits for consumers, the nature of those initiatives is likely to vary significantly, making it hard to identify a set of reasonable common assumptions to assess the impact of these initiatives.

3.2. Appealed and overturned decisions

23. When competition authorities' decisions are appealed, it may take a long time before courts rule on the appeal. In addition, it is possible that parties appeal a decision of the authority after the expected benefits are quantified. In these instances, authorities have different options:

- Authorities may either include the expected impact of the appealed decisions in the year in which the decisions have been taken or include the expected impact once the final decision of appeal has been reached, and
- If appealed decisions are included in the year in which they have been taken and are then annulled by courts, authorities may either revise the past estimates or leave them unchanged.

24. As a general principle, the OECD guide suggests that the expected consumer benefits should be calculated for the decisions taken over the course of the previous year. On the first issue, i.e., whether to incorporate appealed decisions in the year in which they have been taken or when they become final, the guide suggests that authorities should take the approach they prefer, ensuring that the approach is consistent over time and does not lead to double counting.

25. Regarding authorities' practices, for example the ACM, the CMA and DG COMP include in the impact assessment estimates of the benefits arising from cases under appeal at the time of publication. They do that because that is the best estimate of the likely impact of their activity, benefits can be compared to the costs incurred in carrying out the case in the same rough timeframe and because it is not possible to predict whether an appealed decision will be annulled or not (see (CMA, 2022_[2]), (Kemp et al., 2022_[13]) and (DG COMP, 2022_[12])).

26. The OECD guide is silent on the second issue, i.e., whether to revise past estimates in case decisions are overturned, and current practices show a range of variation. On the one hand, overturned

decisions do not deliver benefits, making it reasonable to revise estimates from previous years. However, on the other hand, the possibility of revisions can reduce the stability of previous data points. Some authorities (e.g. ACM) recalculates the benefits when decisions are overturned (Kemp et al., 2022^[13]).

3.3. Indirect effects: deterrence effects

27. Impact assessments of competition authorities do not typically include deterrence effects which refer to the harm that might have arisen in the absence of interventions by a competition authority but that does not arise because firms have decided to change their behaviour. While the enforcement of competition law (and the communication of the enforcement) deters firms from engaging in anti-competitive conduct and evidence from the academic literature suggests that deterrence effects are likely to be large, these effects are difficult to estimate accurately. For example, a low number of interventions of a competition authority could reflect either a low ability to detect infringements of competition law or highly effective competition enforcement generating high deterrence.

28. The OECD guide does not capture the effects on deterrence. Several competition authorities have commissioned work to explore the literature to quantify them; however, these effects are typically not included in their calculation of expected benefits to consumers.⁷ (Davies, 2013^[8]) considers the absence of an estimate of the benefits from deterrence “*the most uncomfortable gap in impact evaluations*”. The Lithuanian Competition Authority have included the effects from deterrence in the calculations of consumer benefits in past annual reports (Lithuanian Competition Authority, 2013^[14]), but it appears that this is no longer the case for later reports. DG COMP includes the benefits arising from decisions about infringements that terminated less than three years before the Commission registered the case (DG COMP, 2022^[12]). DG COMP argues that, on the one hand, if the cartel terminated because of fears of an investigation of the Commission, the activity of the authority has generated benefits for consumers, and in this case, benefits could be included. On the other hand, it is also possible that the cartel terminated for reasons other than the activity of the competition authority. More generally, it can be argued that the closer is the beginning of the investigation to the end of the anti-competitive conduct, the more likely that there is a causal link between the two.

29. Deterrence can be either direct or indirect, as the activity of competition authority discourage future anti-competitive conduct i) by firms who have already infringed competition law and ii) by other firms active in the same or in other sectors. The extent to which businesses may be discouraged to engage in conduct breaching competition law is influenced by many factors. Classic models on law compliance assume that individuals decide whether to break the law based on an analysis of costs and benefits (Becker, 1968^[15]), (Anker, Doleac and Landersø, 2021^[16]). The cost is represented by the punishment multiplied by the probability of being caught, while the benefits is the gain from breaching the law (e.g. higher profits from reduced competition).

30. Based on this intuition, deterrence is greater when either the punishment (i.e., the level of the monetary and non-monetary penalties) or the perceived probability of detection are greater. The latter can be affected by the existence and effectiveness of a competition policy regime, the existence of a leniency scheme (for cartel deterrence), the history of enforcement action in the a given section (CMA, 2017^[17]), as well as by the communication of competition enforcement interventions (OECD, 2023^[1]). Deterrence effects also depend on the reputation of the competition authority, which depends among other things on its past activity (Werden, Hammond and Barnett, 2012^[18]), (Block, Nold and Sidak, 1981^[19]).

31. The economic literature has developed different methods to quantify deterrence effects on cartels. Table 3.1 shows that i) the ranges of estimates of deterrence effects on cartels are broadly consistent across different methods and ii) deterrence effects are very significant. See 4. Annex A for details on the methodologies used.

Table 3.1. Comparison of estimates on cartel deterrence

	Surveys	Statistical inference ¹	Theoretical models ²
Detected harm	1	1	1
Deterred harm	[5-28]	9.5 [7.6 - 17.1]	10.4 [6.4 – 13.8]

Notes:

¹ (Davies, Mariuzzo and Ormosi, 2018^[20])

² (Katsoulacos, Motchenkova and Ulph, 2016^[21])

Source: (Ilzkovitz and Dierx, 2020^[22])

3.4. Other potential issues for discussion

32. This section presents other potential issues for discussion.

3.4.1. Default assumptions on size of affected turnover, price effects and duration of the price effect

33. The OECD guide acknowledges the differences among the key assumptions used by the five authorities who were regularly undertaking this assessment at the time when the OECD guide was published (i.e., different assumptions on how to calculate the size of affected turnover, price effects, and the duration of the price effect where information about the specific intervention is not available) (OECD, 2014^[7]). See (Davies, 2013^[8]) for a discussion of the different practices in this area. Since 2014, the OECD understands that several authorities have revised the assumptions used, but typically details are not in the public domain. For example, among those authorities that publish their methodology, the CNMC revised in 2020 its assumption on the price effects to estimate the impact of merger interventions from 1% to 3% (García-Verdugo and Gómez, 2020^[10]).

3.4.2. Discount rate on future consumer benefits

34. The estimates of consumer benefits may relate to benefits that will arise in the future. For example, (Office of Fair Trading, 2010^[23]) assumes that an anti-competitive practice would have lasted six years since inception. This means that if the CMA stops a cartel two years after it started, benefits will be calculated for the assumed remaining duration of the cartel (i.e., four years). To reflect the fact that people tend to prefer smaller awards available earlier to larger ones available later, some authorities apply a discount factor to future consumer benefits. For example, the CMA and the CNMC use a discount rate equal to 3.5%. See (Office of Fair Trading, 2010^[23]) and (Comision nacional de los mercados y la competencia, 2016^[24]). The OECD guide does not mention discount rates.

3.4.3. Adjustment of estimates of the size of affected turnover for observed inflation

35. To calculate the expected consumer benefits a key input is the estimate of the size of the affected turnover. While this is typically calculated based on the most recent data available, it may be adjusted for the prevailing inflation rate. In periods with low inflation the adjustment may be small, however, when inflation is higher, the adjustment may be more significant. The OECD guide and the methodology documents available on the websites of the authorities do not discuss to adjust the size of the affected market for inflation.

3.4.4. Direct non-price effects

36. Impact assessments do not typically include non-price effects of competition interventions on, for example, productivity and innovation. The OECD guide acknowledges that competition interventions may also have beneficial effects on innovation and productivity, however these are more difficult to estimate, and they are not included in the guide.⁸

4. Questions for discussion

37. This chapter presents a non-comprehensive list of questions for the discussion.
- **Question 1.** Do you calculate the benefits of competition interventions?
38. If you calculate the benefits of competition interventions:
- **Question 2.** Please explain why you calculate the benefits of competition interventions.
 - **Question 3.** Do you publish an estimate of such benefits?
 - **Question 4.** Do you use a methodology inspired to the OECD guide?
 - **Question 5.** Since 2014, did you make significant changes to the methodology used?
 - **Question 6.** Do you take into account activities other than antitrust enforcement and merger control?
 - **Question 7.** Do you revise previous estimates to take into account decisions that are overturned by courts?
 - **Question 8.** Do you take into account benefits arising from decisions about infringements that terminated before the beginning of the investigation?
 - **Question 9.** What assumptions do you use about price effects and duration of price effects? Do you use different default assumptions depending on the characteristics of the case?
 - **Question 10.** Do you apply a discount rate to future savings?
 - **Question 11.** Do you adjust firms' turnover for inflation?
 - **Question 12.** Do you include direct non-price effects in your estimates?
 - **Question 13.** Do you estimate deterrence effects?
39. Finally:
- **Question 14.** Do you think the OECD guide should be updated to reflect current practices?
 - **Question 15.** Would you be interested in participating in a working group to revise the OECD guide?

Annex A.

40. Several studies have attempted to measure the deterrence effects of competition policy. This annex presents the main methodologies used to estimate cartel deterrence.

Surveys

41. Deterrence effects have been measured through surveys. This typically involves asking businesses and businesses' advisors whether plans of engaging in cartels or anticompetitive mergers were abandoned or modified before implementation because of the fear of enforcement action. Surveys find that between 5 and 28 cartels were deterred for every cartel detected (see Table A.1).

Table A.1. Estimates of cartel deterrence effects based on surveys

Source	Respondent	Period	Number of cartels deterred for every cartel detected
Twynstra Gudde (2005), Research into the Anticipation of Merger Control,	Competition lawyers and companies	2000-2003	-
Gordon, F. and D. Squires (2008), "The deterrent effect of UK competition enforcement"	Competition lawyers	2004-2006	5
	Large firms	2004-2006	16
London Economics, 2011	Large and small firms	2003-2001	28
Baarsma, B. et al. (2012), "Let's Not Stick Together: Anticipation of Cartel and Merger Control in The Netherlands"	Companies	2005-mid2010	5

Source: (Ilzkovitz and Dierx, 2020^[22])

42. These surveys present several limitations. For example, legal advisors may underestimate the deterrence effects, as they may not be aware of all business' initiatives. Moreover, as any other survey data, there may be a difference between the responses and the actual behaviour of respondents. Finally, the population responding to these surveys is not randomly selected.

Statistical inference

43. Competition enforcement and merger control may reduce harm either by deterring new anticompetitive conduct from arising in the first place or by shortening the length or the harmfulness of the conduct that goes undeterred and undetected. Statistical inference methods focus on the number of deterred cartels and on indirect deterrence (rather than on the harm of cartels and on recidivist deterrence).

44. When measuring deterrence, one of the main challenges is that deterred cartels may be different from detected cartels. For instance, deterred cartels may differ in the duration of the agreement or in the overcharge they apply. Taking these differences into account, (Davies, Mariuzzo and Ormosi, 2018^[20]) estimate that deterred harm is between 7.6 and 17.1 times higher than the detected harm (the central estimate is 9.5). This suggests that, similarly to the results based on surveys, the deterrence effect of cartel enforcement is likely to be significantly larger than its direct benefits.

Theoretical models

45. Another strand of the literature uses theoretical models to describe cartel formation and breakdown, and quantify the deterrence effects of cartel enforcement. A key determinant of deterrence effects is the history of competition enforcement action of competition authorities. Every time an authority detects and stops anticompetitive behaviour, it sends a signal which spreads among market players, and it can be amplified by the interaction among them. The larger the intervention (e.g., measured by the affected market size or the fine), the stronger the signal.

46. (Katsoulacos, Motchenkova and Ulph, 2016^[21]) model cartel formation and breakdown. In their model the enforcement activity of a competition authority is characterised by a probability to detect anti-competitive conduct and two probabilities that, when the cartel is detected, cartel participants change their behaviour either in the short term or in the long term respectively. This is because (Katsoulacos, Motchenkova and Ulph, 2016^[21]) assume that detection does not necessarily determine the end of the cartel activity and firms may re-engage in anti-competitive behaviour, either in the short term or in the long term. Their estimate of deterred harm depends on the choice of several parameters (e.g., the probability of detection). They estimate that the deterred harm is between 6.4 and 13.8 times higher than detected harm (the central estimate is 10.4).

47. (Dierx et al., 2023^[25]) model deterrence as the result of the diffusion of information about the competition authority's interventions. By enforcing competition law, competition authorities send signals to market participants. The model's parameters are calibrated using data about the activity of the European Commission. The authors then simulate the macroeconomic impact of competition policy enforcement, and they find that, using data about the European Union, under the baseline scenario, a continuation of the activity of enforcement of competition law by the European Commission at the same pace as in 2012-2021, would lead to an increase of GDP between 0.33 and 1.08 percentage points.

Endnotes

¹ See press release Competition Council of Lithuania [Competition Council of the Republic of Lithuania](#)

² The OECD Working Party No. 2 on Competition and Regulation has previously held several roundtables and workshops on ex-post evaluation. For example, in 2011 it held a roundtable on impact evaluation of merger decisions (OECD, 2011^[31]), in 2015 and 2016 it held two workshops on ex-post evaluation of competition enforcement decisions (Duso and Ormosi, 2015^[33]) and (Kwoka, 2016^[34]), and it published the OECD guide on ex-post evaluation of competition agencies' enforcement decisions in 2016 (OECD, 2016^[32]).

³ Based on discussions with the European Commission.

⁴ This reflects the existing work of authorities. Other effects of competition on, e.g., innovation, productivity and quality are not discussed in this issues paper.

⁵ This issues paper does cover the methodologies to calculate the expected consumer benefits generated by consumer enforcement action. See (Office of Fair Trading, 2010^[23]) and (Kemp et al., 2022^[13]) for two methodology on how to calculate benefits generated by consumer enforcement activity.

⁶ For example, the Commission may exercise its discretion to close a case after the party terminates the conduct under investigation before the authority publishes a decision, but a case file has been opened and there has been some communication about the case (DG COMP, 2022^[12]).

⁷ Several authorities have done and encouraged worked to quantify deterrence effects (e.g., CMA, ACM, DG COMP). For example, (DotEcon, 2018^[37]) assessed awareness of five antitrust investigations of the OFT/CMA and of competition law more generally. DotEcon found a link between CMA/OFT interventions and greater levels of awareness and understanding of competition law. In January 2023 DG COMP published a call for tenders to provide an update on existing survey-based evidence to estimate the scale of the deterrence effects of EU competition policy enforcement. [eTendering - Data \(europa.eu\)](#).

⁸ Some competition authorities are integrating environmental effects into competition enforcement. For example, in 2020 the Dutch ACM has started to take into account sustainability considerations when assessing potentially anti-competitive agreements. When firms collaborate to promote sustainability, the negative effects from collaborating are compared with the benefits arising from increased sustainability. If the latter outweighs the former, sustainability agreements restricting competition may go ahead. When assessing the impact of such agreements, the benefits for consumers are the sustainability gains minus the negative effects because of the restriction to competition. In 2021 the ACM published an update to its methodology on estimating benefits (Dijkstra, Kopányi and Van Dijk, 2022^[11]) to explicitly include these

effects in the calculation of direct consumer benefits arising from competition interventions. At the time of writing this note, the ACM has not applied in practice this aspect of the methodology.

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