CCPC Impact Assessment

Estimating the Consumer Benefits of the CCPC's Competition Enforcement and Merger Control, 2017-2020

CCPC

Coimisiún um Iomaíocht agus Cosaint Tomhaltóirí
Competition and Consumer Protection Commission

Table of Contents

1. Introduction[1]

1.1 This paper provides a high-level assessment of the consumer benefits delivered by the CCPC's competition enforcement and merger control work over the period 2017-2020. It is an *ex-ante* assessment of activities and interventions. It sets out, on the basis of internationally accepted and widely used assumptions, the benefits which are estimated to have occurred as the results of those activities. Its purpose is to identify the expected value to consumers of those activities, relative to the costs and resources required to carry them out. It differs from an *ex-post* - evaluation which focuses on the actual outcomes which have occurred, and seeks to understand and assess the decisions that were made and the impacts that occurred.

1.2 This is not a comprehensive assessment of the consumer benefits of the full range of the CCPC's work, which also includes consumer protection, product safety, informing and advising consumers about their rights, provision of financial information and education, and other functions.[2] Internationally, a consistent and comparable approach to measuring the benefits of competition work exists, and has been applied here. The evidence base is less well developed in consumer protection and product safety, and for this reason these areas will be considered as part of subsequent CCPC research.

1.3 The central scenario, which is the midpoint of the high and low scenarios described in section 4, gives an estimated €56.91 million financial benefit to consumers, or €14.23 million per year, for the CCPC's merger control work over

[1] The CCPC is grateful to Professor John Fitzgerald, and to Adriaan Dierx, Senior Expert, Ex-post Economic Evaluation of Competition Policy Unit, DG COMPETITION, European Commission, for their very helpful feedback and comments on this report.

[2] For more information about the CCPC's functions, activities and vision, please see its Strategy Statement.

that period. The central scenario gives an estimated €8.91 million financial benefit to consumers, or €2.23 million per year, for competition enforcement work.

1.4 A cost benefit analysis was also carried out. In the central scenario, a Net Present Value (NPV) of €56.67 million and a Benefit Cost Ratio (BCR) of more than 7 have been estimated, indicating strongly positive net benefits.

1.5 The CCPC makes a number of recommendations for future impact assessments and research:

- **Recommendation 1:** This work should be carried out on an annual basis. It should continue to cover a period of several years to account for the fact that a significant proportion of the CCPC's work focuses on large, multi-annual cases, and therefore output levels are not always stable annually. Relevant data from cases should be gathered as the cases are ongoing, to maximise efficiency and ensure the most relevant data is used.

- **Recommendation 2:** Further research should be undertaken in order to try to improve the accuracy of impact assessments of competition enforcement. For example, investigating whether specific case data or analysis can be utilised instead of the standard assumptions. Or whether it is possible to distinguish benefits by type of decision or commitments.

- **Recommendation 3:** This work provides value by estimating and communicating the expected consumer benefits of the CCPC's merger and competition enforcement work. However, it is not an assessment of the efficiency or effectiveness of that work, nor is it an evaluation of the decisions which were taken. It is important that these are assessed by an ongoing programme of post-project reviews and ex-post evaluations.

- **Recommendation 4:** This type of analysis can yield useful insights into the outcomes of a competition authority's interventions. For example, how much consumer savings accrues from different intervention types, or in different economic sectors? It will require conducting impact assessments for a number of years before these kinds of questions can be explored, but it will be very useful for the CCPC to consider, when sufficient data does exist.

1.6 This report is set out as follows:

- Section 2 provides a description of the CCPC's activities which are covered by this paper;
- Section 3 sets out some key principles to be applied when developing quantitative impact assessments;
- Section 4 contains a review of the international literature for estimating the ex-ante benefits of competition enforcement work, and sets out the methodology for estimating the CCPC's impact in this area;
- Section 5 sets out the results of the consumer benefit calculations; and
- Section 6 sets out some recommendations.

2. CCPC Activities

2.1 This section sets out the CCPC's activities in competition enforcement.[3]

Competition

2.2 The CCPC has primary responsibility in Ireland for enforcing EU and national competition law. Competition between firms reduces 'market power'—the ability of a firm to raise prices above a competitive level. Market power also reduces incentives to increase good/service quality, or to innovate. Market power can exist for structural reasons—high entry costs for example—or can exist due to 'anti-competitive behaviour' such as price-fixing.

2.3 The CCPC's role is to ensure that consumer welfare is not reduced either by anti-competitive behaviour by firms or by fixable structural issues. The CCPC:

- Conducts investigations and takes criminal and civil actions against breaches of competition law;
- Must be notified about proposed mergers and acquisitions above a financial threshold, and assesses them to determine whether they are likely to result in a substantial lessening of competition; and
- Conducts research and market studies to better understand potential competition issues within those markets and how to remedy them, as well as working with businesses to inform them how to comply with competition law.

2.4 These functions are intended to ensure that anti-competitive behaviour (such as price-fixing or abuses of dominance) is deterred or stopped, that mergers which could substantially lessen competition are deterred, modified or prohibited, and that markets where competition is not working optimally can be identified and improved. The ultimate outcome for consumers, then, should be lower prices , higher quality and greater choice of goods and services for consumers.

[3] These are the areas of the CCPC's responsibility being considered in this report. The CCPC's work is considerably wider than this. Future versions of this report may consider a wider range of activities, for example market studies.

2.5 Table 1 is a summary of the CCPC's competition enforcement and merger control work in the period 2017-20:

Table 1: A summary of CCPC outputs, 2017-2020

	2017	2018	2019	2020
Criminal convictions	1	0	1	0
Criminal investigations referred to DPP	0	1	1	0
Civil competition investigations	5	4	5	4
- Of which concluded	1 (1 with commitments, 0 with court proceedings brought)	1 (1 with commitments, 0 with court proceedings brought)	1 (0 with commitments or court proceedings brought)	1 (1 with commitment enforced by Section 14B Court order)
Mergers notified	72	98	47	41
- Merger Determinations made	68 (4 required commitments, 0 prohibited)	95 (5 required commitments, 0 prohibited)	49 (4 required commitments, 0 blocked)	43 (1 required commitments, 0 blocked)

- Extended Merger Investigations	9 (0 required Phase 2)	14 (3 required Phase 2)	9 (2 required Phase 2)	15 (2 required Phase 2)

CCPC

3. Key Principles

Cost Benefit Analysis

3.1 Cost benefit analysis (CBA) is an approach used to estimate the impact of an intervention. The Public Spending Code '*Overview of Appraisal Methods and Techniques*' (DPER, 2012) describes its purpose as "to assess whether or not the social and economic benefits associated with a project are greater than its social and economic costs". The results of a CBA are most commonly presented in the form of a Net Present Value (NPV – the difference between the discounted costs and discounted benefits) or a Benefit Cost Ratio (BCR – the ratio of discounted benefits to discounted costs).

Ex-Ante vs Ex-Post

3.2 The estimated benefits captured are ex-ante benefits, in that, as set out by the OECD's '*Guide for helping competition authorities assess the expected impact of their activities*', they relate to "likely future effects that have yet to be observed, or of averted effects that can only be estimated as they will never be observed" (OECD, 2014).[4]

3.3 As a result, the estimates do not consider observed outcomes in the market following the intervention, nor do they assess whether the CCPC's interventions were correct or optimal. These ex-post evaluations are very important exercises for competition authorities to carry out, but are not suited to attempting to quantify the value of the organisations outputs as a whole.

Conservative Estimates and Sensitivity Analysis

3.4 Given the ex-ante nature of the estimates, where judgements on assumptions need to be made around, for example, affected turnover, price effects, durations

[4] While the estimates are being made after interventions, and in some case a number of years after interventions, they rely on ex-ante information and assumptions.

the CCPC adheres to international practice (see (Davies, 2013)) in seeking to ensure that the estimates are conservative.

3.5 In addition, given the general uncertainty around impacts resulting from a lack of empirical data, the CCPC has undertaken sensitivity analysis using a range of assumptions used by different competition authorities. The range itself is intended to be conservative, but also reflects that this is not a precise exercise.

Price Base and Discounting

3.6 The CCPC uses the Consumer Price Index to inflate affected monetary figures to 2020 values, where necessary. In addition, in accordance with the Public Spending Code's guidance (DPER, 2019), the CCPC has discounted consumer savings in each future year by 4%.

4. Measuring the Impact of the CCPC – Competition

Scope of Analysis

Types of Intervention

4.1 This analysis will be focused on the CCPC's direct competition enforcement work (cartels and civil enforcement) as well as mergers assessments. Activities such as encouraging business compliance or issuing guidance or warnings have been excluded as, while these are important and valuable activities, it is difficult to identify and quantify the specific potential harms that may have been avoided or prevented.

4.2 In addition, competition enforcement cases which did not lead to commitments, court proceedings or fines[5][6], and merger cases which were cleared unconditionally, are excluded from this analysis.

Timeframe

4.3 (OECD, 2014) suggests that the results of the impact assessment should be presented "both as an annual figure and as an annual moving average over three years".

4.4 The CCPC decided that estimating the consumer savings, and CCPC costs, over a three-year period, would be an appropriate approach. As the CCPC is a small organisation, the number of cases per year is small and can vary substantially in relative terms, making annual figures unsuitable. Furthermore, it was decided that using a four-year timeframe would be suitable for the analysis this year, as 2020

[5] As set out in Table 1, no CCPC investigations were referred to the courts in the timeframe.

[6] The CCPC has not previously had the power to levy fines. However, the Competition (Amendment) Bill 2022, which will transpose Directive (EU) 2019/1 ('The ECN+ Directive'), will grant the CCPC this power, meaning this may be a relevant consideration in future versions of this analysis.

is not a representative year, due to the impact of the COVID-19 pandemic on the organisation's work.[7]

Consumer Welfare or Total Welfare?

4.5 It is the CCPC's function to promote and protect the interests and welfare of consumers. The benefits which accrue to consumers include lower prices, increased choice or quality, and potentially reduced psychological detriment. The CCPC's work also can impact upon businesses. For example, merger control and competition enforcement can create a fairer playing field in a market, to the benefit of, for example, smaller competitors or potential entrants. It can also have a negative impact on market participants by stopping or modifying planned mergers, by stopping profitable anti-competitive behaviour and through the direct costs (legal, etc) of being a party in a merger or competition case.

4.6 In this analysis, the benefits will be limited to the CCPC's impact on consumer welfare. This is primarily because competition law in the EU and Ireland is focused on consumer welfare. This approach is consistent with the OECD's guidance (OECD, 2014), as well as national guidance including the approach followed by the Competition and Markets Authority (CMA) in the United Kingdom (OFT, 2010).

Types of Benefits

4.7 It is important to note that the approach set out below attempts to estimate direct financial benefits to consumers. It is beyond the scope of this analysis to capture impacts of the CCPC's interventions on any reduced psychological detriment to consumers of improved competition, such as reduced stress from the risk of negative outcomes or the inherent utility consumers may get from more choice. The approach also does not capture the dynamic benefits which might accrue through, for example, increased competition fostering greater innovation and productivity.

[7] This four-year time assessment period is likely to continue to be used until 2020 is no longer within scope of a three-year period. And a similar consideration may need to be made regarding 2021, in future updates of this analysis.

4.8 It is also beyond the scope of this approach to identify the 'deterrent effect' of the CCPC's activities. Companies may be incentivised not to breach competition law, due the risk of being detected and punished. Similarly, they may choose not to go ahead with potential mergers or acquisitions if there is felt to be a significant risk of the CCPC blocking them. These benefits are inherently 'hidden' and therefore difficult to quantify.

4.9 (CMA, 2017) surveyed the literature on the deterrent effect, finding that "overall, the literature suggests that the deterrent effect of competition law enforcement is significant and can be larger than its direct impact", that "surveys estimate deterrence ratios[8] to be between 4.6:1 and 28:1 for cartels" and that "having a merger control regime in itself prevents anticompetitive mergers from being proposed (with surveys suggesting that around 4-18% of potential mergers are abandoned and 2-15% are restructured due to deterrence)." The CCPC notes that the range of these results suggest significant uncertainty, and/or a large regime-specific effect, which is further justification for not incorporating an estimate of deterrent effects into this analysis. It is nevertheless reasonable to suggest that the omitted benefits of the CCPC's competition activities are substantial. This is consistent with our principle of being conservative in our estimates, but it is still worth noting that the true benefits of the CCPC's work are likely to be significantly greater than those which have been estimated.

Measuring Consumer Welfare Benefits

4.10 As set out in Section 1, the primary benefits of competition policy and competition enforcement work accrue to consumers in the form of a combination of reduced prices, increased quality, reduced search costs and/or greater amounts of choice. The total change in these benefits is the total change in 'consumer surplus'.

4.11 A key concept in CBA is monetising impacts. This refers to estimating monetary values for non-financial impacts, in order to be able to directly compare them with each other, and with costs (which are usually financial). As this analysis is ex-ante and outcomes have not yet been observed, the CCPC will use a simplifying

[8] The number of cartels that don't form or are abandoned per cartel that is caught by the competition authority.

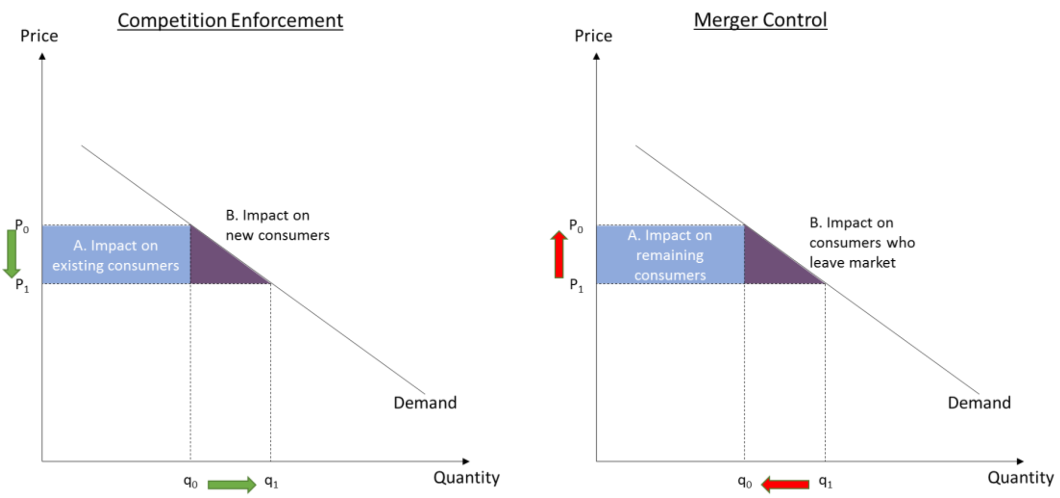
assumption that the benefit to consumers is price-related. I.e. the benefit is either a price increase avoided in the case of merger control, or a price reduction achieved through competition enforcement. As long as the quantum of benefits is evidence-based in relation to empirical studies of competition interventions of the same types, this is an appropriate approach.

4.12 There are two broad effects on consumers of a price change:

- First, there are the consumers who will purchase the product at either price level. For these consumers the impact is the change of price.
- Second, there are the 'marginal consumers'. These are those consumers who will enter or exit the market because of the price change.

4.13 Figure 1 illustrates the intended consumer surplus impact of competition enforcement and merger control, respectively. For competition enforcement, the outcome is that a harmful anti-competitive behaviour has been stopped, leading to a reduction in the price level, from p_0 to p_1. This should also lead to an increase in demand levels, from q_0 to q_1. The consumer impact, therefore, is represented as the sum of A, the impact on existing consumers, and B, the impact on new consumers. Merger control is designed to prevent a lessening of competition from occurring, and a resulting price increase of p_1 to p_0, and a consequent reduction in demand from q_1 to q_0. Again, the consumer surplus impact is A + B.

Figure 1: Consumer impact of competition activity



4.14 Measuring the impact on existing / remaining consumers is calculated as:

$$A = q_0 * (p_0 - p_1)$$

With the assumption that the demand function is linear, the impact on new or existing consumers is calculated as:

$$B = \frac{1}{2} * (q_1 - q_0) * (p_0 - p_1)$$

This means that total consumer welfare impact can be calculated as:

$$A + B = \frac{1}{2} * [(q_0 * (p_0 - p_1)) + (q_1 * (p_0 - p_1))]$$

4.15 This function can be estimated using data regarding turnovers in the affected market, along with assumptions around the price increase removed or avoided, and the price elasticity of market demand[9]. This can be used to derive the calculations for the annual impact of the CCPC's competition enforcement interventions. These are set out in Table 2.[10]

Table 2: Formula for calculating annual impact of CCPC competition interventions

Mergers cases	Cartels / Civil enforcement
$\frac{1}{2} * [affected\ turnover] * [price\ increase\ avoided] * [2 + (market\ demand\ elasticity) * (price\ reduction\ achieved)]$	$\frac{1}{2} * [affected\ turnover] * [price\ increase\ avoided] * [2 - (market\ demand\ elasticity) * (price\ increase\ avoided)]$

Duration of Effect

4.16 The formula above enables us to estimate the annual benefit of the intervention. It is necessary to determine the appropriate assumptions for the duration of the price effect that has been avoided or prevented. This may be more (or less) than a year. It depends on how long it would be expected to take for a market to be 'corrected' by entry, or an innovation or technological change.

[9] The price elasticity enables us to estimate the impact the price effect would have had on market demand. That is, the impact that a change in p has on q.

[10] They differ between mergers and cartel/civil enforcement cases because, as per **Error! Reference source not found.**, the *observed* turnover for mergers is q_1 while for cartel/civil enforcement it is q_0.

Case-Specific Assumptions

4.17 Having identified the theoretical approach to calculating changes in consumer surplus, to assess the competition impacts of specific interventions made by the CCPC, the following need to be estimated:

- the size of the affected turnover;
- the price increase removed or avoided;
- the price elasticity of market demand; and
- the expected duration of the price effect.

4.18 The affected turnover is, in principle, the total turnover of all parties competing in the relevant market(s). However, for reasons of conservatism, as well as information availability, the CCPC will use the following assumptions, as recommended by (OECD, Guide for helping competition authorities assess the expected impact of their activities, 2014):

- in cartel and abuse of dominance cases, the ex-ante turnover of the companies under investigation in the affected market(s);
- in merger cases, the ex-ante turnover of all the firms in the affected market(s).

4.19 As this is ex-ante analysis, the CCPC does not have empirical evidence on price or demand effects. The following assumptions were made:

- Price effect size and duration[11] assumptions are taken from the meta-analysis of other Competition Authorities' approaches, and are set out in Table A 1 and Table A 2 in Appendix A.
- The price elasticity assumptions are the same as (OFT, 2010), with the exception of the 'low' assumption for cartel and civil enforcement cases, which are the CCPC's own and have been chosen to be as conservative as possible.

[11] The EU Commission assesses each individual case to determine the most likely price effect duration. They score each case on a number of factors to determine which of three possible duration assumptions is most appropriate. The CCPC will consider more case-specific assumptions in future iterations of this analysis.

4.20 The collected assumptions are set out in Table 3.

Table 3: Assumptions used for impact assessment of competition activity[12]

	Affected Turnover	Price Increase (Low)	Price Increase (High)	Price elasticity (Low)	Price elasticity (High)	Price Effect Duration (Low)	Price Effect Duration (High)
Cartel cases[13]	Turnover in relevant market of companies under investigation	10%	15%	0	-2	3 year	6 years
Civil enforcement cases	Turnover in relevant market of companies under investigation	5%	10%	0	-2	3 year	6 years
Merger cases	All firms' turnover in the relevant market	3%	5%	-0.5	-2	2 year	3 years

[12] Based on the information set out in Appendix A. Figures from the US agencies have been excluded as they appear to be outliers compared to other organisations.

[13] This may be conservative. A study by (Connor, 2014) indicates that the median price effect and duration of cartels which he analysed were higher than assumed here.

5. Consumer Savings by Type

Merger Control

5.1 From 2017 to 2020 the CCPC issued 255 merger determinations. Fourteen mergers (5.5%) were cleared with commitments. Over the time period ten mergers (71%) were cleared with commitments consisting solely of behavioural remedies. Two of these decisions required full phase 2 investigations before they were cleared with commitments. Four clearances resulted in structural remedies being required before the merger was permitted. Two of these mergers were cleared primarily with structural remedies[14] and two required a mix of structural and behavioural remedies.[15] Of the mergers that resulted in structural remedies, two decisions required a full phase 2 investigation.

5.2 Broadly speaking, the approach of this analysis to mergers which are withdrawn following notification is to include these in the analysis if and only if they have been withdrawn following the merger advancing to a phase 2 investigation, and there is no reason to believe that there are external factors behind the withdrawal which have nothing to do with the CCPC assessment. In this time period, two mergers were notified and subsequently withdrawn. One of these was withdrawn shortly after being notified and has been excluded from the analysis. The other, M/20/003 Link Group/Pepper (see footnote 16), was withdrawn in Phase 2, and has been included in the analysis.

Table 4: Merger Decisions 2017-2020 (Phase 2 in brackets)

Year	Cleared	Cleared with Behavioural Remedies	Cleared primarily with Structural remedies	Cleared with Structural & Behavioural Remedies	Blocked

[14] M-18-063 Berendsen (Elis), Kings Laundry and M/17/012 – Mediawatch Limited t/a Kantar Media / Newsaccess Limited

[15] M/18/036 Enva/Rilta and M-18-009 BWG 4 Aces

2017	68	3	1	0	0
2018	95 (3)	3 (1)	0	2(1)	0
2019	49 (2)	3 (1)	1 (1)	0	0
2020	43 (2) [16]	1	0	0	0

5.3 The central scenario, which is an average of the high and low scenarios described in section 4, gives an estimated €56.91 million financial benefit to consumers, or €14.23 million per year.

Table 5: Consumer Impact of Merger Control, 2017-2020 (€millions), Central Scenario

	Central Scenario
Total	€56.91
Average per year	€14.23

5.4 Based on the low price effect and duration scenarios described in Section 4, for the period 2017 to 2020 the estimated direct financial benefit to consumers from the CCPC's merger regime was €32.27 million over the time period, or €8.07 million per year. The high price effect size and duration scenario indicates that the merger regime saved consumers €81.55 million, or an average of €20.39 million per year.

5.5 The largest contributor to the 2017-2020 benefits estimate was the CCPC's intervention in M-18-067 LN-Gaiety/MCD Productions. During the phase 2 review the CCPC identified a number of competition concerns in four relevant markets. Commitments were agreed which were deemed sufficient and effective in addressing these concerns. Another phase 2 review in 2019 was M-18-063 Berendsen (Elis), Kings Laundry. The commitments given in this case were primarily structural. To obtain the CCPC's approval, the merged entity was required to submit commitments that it would divest a number of contracts with healthcare customers to a suitable third-party supplier to replace the competition that would be lost as a result of the proposed acquisition. The commitments

[16] The phase 2 figure includes the merger notification M/20/003 –Link Group/Pepper which was notified 10 Feb 2020, and withdrawn in Feb 2021 following a lengthy Phase 2 investigation. It also includes the merger notification M/20/005 - ESB/Coillte (JV), for which a decision to clear with commitments was reached 5 February 2021.

specified the value and composition of the healthcare contracts (i.e. public hospitals) to be sold. The suitability of the purchaser of the healthcare contracts was also subject to the approval of the CCPC. The estimated consumer savings from the CCPC's intervention in Berendsen/Kings Laundry is significantly less that in LN-Gaiety/MCD Productions reflecting the economic size of each market. This highlights that the benefits of the merger regime will vary from year to year depending on the nature of the mergers that are notified.

5.6 It is worth noting that the standard assumptions used make no distinction between the types of commitments required. Therefore, structural commitments such as divestment of assets or companies are assumed to have the same price effect as behavioural commitments such as confidentiality agreements. While it is reasonable to suggest that these different types of commitment may be preventing different scales of consumer harm, the CCPC has followed international best practice in treating them identically. Nevertheless, this may be a useful area for future research.

5.7 While the assumptions on effects and duration were the same for behavioural and structural remedies, due to data limitations with respect to some mergers cleared with behavioural commitments, the CCPC only applied the impact to the relevant turnovers of the parties subject to the commitment rather than all parties in the relevant market. In cases where the CCPC believed it to be unlikely that both parties were equally constrained by the other the CCPC only used the turnover of the smaller party. This has the effect of reducing the relative impact of these decisions, reflecting the conservative nature of the assumptions used.

5.8 As set out in Section 4, these estimates do not include any estimates of the potential deterrent effect. The CCPC notes the cited survey evidence that suggests between 6% and 33% of mergers are abandoned or restructured to avoid or mitigate a merger investigation. This suggests the deterrent effect could be up to 50% of the impact of merger cases which do get notified, though a deterrent effect is likely to depend to a strong degree on the effectiveness of the specific competition authority, and also it is not clear whether deterred mergers share the same average characteristics (for example firm size) as those which are notified. Therefore, the CCPC has not included an estimate of a deterrent effect.

Competition Enforcement

5.9 From 2017 to 2020 the CCPC secured undertakings in five civil competition enforcement cases. Three of these cases led to informal non-binding undertakings with the parties, one case resulted in a voluntary binding undertaking given to the CCPC, and one case resulted in a Section 14B Court Order.

Table 6: Competition Enforcement Decisions, 2017-2020

	Decisions	Outcomes
2017	2	1 Voluntary binding commitment given to CCPC Informal non-binding commitment agreed with CCPC
2018	2	1 Voluntary binding commitment given to CCPC 1 Informal non-binding commitment agreed with CCPC
2019	-	-
2020	2	1 Binding under Section 14B Court Order 1 Informal non-binding commitment agreed with CCPC *1 extension to voluntary binding commitments*

5.10 The central scenario, which is an average of the high and low scenarios described in section 4, gives an estimated €8.91 million financial benefit to consumers, or €2.23 million per year. Based on the high price effect and duration scenario described in Section 4, for the period 2017 to 2020 the estimated direct financial benefit to consumers from the CCPC's competition enforcement regime was €13.89 million, or an average of €3.47 million per year. The low-price effect, size and duration scenario indicate that the merger regime saved consumers €3.94 million over the time period, or €0.98 million per year.

Table 7: Consumer Impact of Competition Enforcement, 2017-2020 (€millions), Central Scenario

	Central Scenario
Total	€8.91
Average per year	€2.23

5.11 The biggest contributor to the estimate of the impact of the CCPC's civil enforcement was a CCPC investigation into ticketing, which resulted in commitments from Ticketmaster. In some cases, estimating the economic impact of each case was not possible because the turnover was not obtained by the CCPC. This is because some CCPC interventions focus on preventing potential anti-competitive behaviour e.g. potential collusive action, and not on investigating whether anti-competitive conduct had taken place.

5.12 As set out in Section 4, these figures do not include any estimates of the potential deterrent effect. The CCPC notes the cited survey evidence that suggests a deterrence ratio for cartels of between 4.6:1 and 28:1, which means that for every cartel that operates, between 4.6 and 28 do not operate specifically due to the risk of detection and enforcement by the competition authority. This suggests the true impact of competition enforcement could be an order of magnitude larger than the impact of cases that were taken. However, a deterrent effect is likely to depend to a strong degree on the effectiveness of the specific competition authority, and it is also unclear whether this deterrence ratio would apply similarly to cases such as abuse of dominance. Therefore, the CCPC have not included an estimate of a deterrent effect.

Cartels

5.13 While the CCPC has secured a conviction for a cartel offense during the period 2017-2020[17], the turnover data needed to estimate the impact of this conviction was not gathered as part of the case. Ensuring that this data is collected as part of an investigation in future is a recommendation of this report (see Section 6).

Cost-Benefit Analysis

5.14 Table 8 outlines the costs of the CCPC's merger control and competition enforcement work over the period 2017-2020. In total, they amount to €9.18 million or an average of €2.3 million per year.[18]

Table 8: CCPC Costs for competition enforcement and mergers, 2017-2020 (€millions)

2017	2018	2019	2020	Total
€2.14	€2.19	€2.32	€2.54	€9.18

5.15 Table 9 sets out the results of the cost benefit analysis. The Central Scenario is an NPV of €56.67 million and a BCR of more than 7, indicating strongly positive net benefits. The High Scenario indicates a net cost of the CCPC, with an NPV of €86.28 million and a BCR of 10.42, while the Low Scenario gives an NPV of €27.05m and BCR of 3.95.

Table 9: Cost-Benefit Analysis, 2017-2020 (€millions)

	Central Scenario
Discounted Benefits (€millions)	€65.82
Discounted Costs (€millions)	€9.16

[17] See https://www.ccpc.ie/business/enforcement/criminal-enforcement/criminal-court-cases/commercial-flooring-cartel-conviction/

18 Based on analysis of CCPC financial data. It includes direct staff costs for the Competition Enforcement and Mergers Division, plus an allocation of a proportion of Legal Services, Corporate Services and non-pay costs.

Net Present Value (€millions)	€56.67
Benefit Cost Ratio	7.19

6. Next Steps

6.1 This is the first CCPC Impact Assessment of the benefits of the work of the organisation to consumers. Building on international research in the area, a methodology to quantify the benefits to consumers of the organisation's competition enforcement work has been developed, and detailed consideration was given to quantifications of the benefits of consumer protection and product safety work.

6.2 The CCPC makes a number of recommendations for future impact assessments and research:

- **Recommendation 1:** This work should be carried out on an annual basis. It should continue to cover a period of several years to account for the fact that a significant proportion of the CCPC's work focuses on large, multi-annual cases, and therefore output levels are not always stable annually. Relevant data from cases should be gathered as the cases are ongoing, to maximise efficiency and ensure the most relevant data is used.

- **Recommendation 2:** Further research should be undertaken in order to try to improve the accuracy of impact assessments of competition enforcement. For example, investigating whether specific case data or analysis can be utilised instead of the standard assumptions. Or whether benefits can be distinguished by type of decision or commitments.

- **Recommendation 3:** This work provides value by estimating and communicating the expected consumer benefits of the CCPC's merger and competition enforcement work. However, it is not an assessment of the efficiency or effectiveness of that work, nor is it an evaluation of the decisions which were taken. It is important that these are assessed by an ongoing programme of post-project reviews and ex-post evaluations.

- **Recommendation 4:** This type of analysis can yield useful insights into the outcomes of a competition authority's interventions. For example, how much consumer savings accrues from different intervention types, or in different economic sectors? It will require conducting impact assessments for a number of years before these kinds of questions can be explored, but it will be very useful for the CCPC to consider, when sufficient data does exist.

A. Appendix A

Table A 1: Price increase assumptions used in impact assessments

	Office of Fair Trading (UK) (OFT, 2010)	Federal Trade Commission (US) (Davies, Assessment of the Impact of Competition Authorities' Activities, 2013)	Department of Justice (US) (Davies, Assessment of the Impact of Competition Authorities' Activities, 2013)	Authority for Consumers & Markets (Netherlands) (ACM, 2014)	Bundeskartellamt (Germany) (Bundeskartellamt, 2016)	EU Commission[19]
Cartel cases	10-15%	n/a	10%	10%	10%	10-15%
Civil enforcement cases	10%	1%	1%	5%	N/A	5-10%
Merger cases	Simulated	1%	Simulated (if not, 1%)	3%	N/A	3-5%

Table A 2: Price effect duration assumptions used in impact assessments

	Office of Fair Trading (UK) (OFT, 2010)	Federal Trade Commission (US) (Davies, Assessment of the Impact of	Department of Justice (US) (Davies, Assessment of the Impact of Competitio	Authority for Consumers & Markets (Netherlands) (ACM, 2014)	Bundeskartellamt (Germany) (Bundeskartellamt, 2016)

[19] Based on a presentation by the EU Commission at a European Competition Network meeting.

		Competition Authorities' Activities, 2013)	n Authorities' Activities, 2013)		
Cartel cases	6 years	N/A	1 year or number of months for shorter lived	3 years	3 years
Civil enforcement cases	6 years	2 years	1 year	3 years	N/A
Merger cases	2 years	2 years	1 year	3 years	N/A

References

ACM. (2014). *Outcome ACM - Berekeningsmethode van de outcome van ACM.* The Hague: ACM.

Bundeskartellamt. (2016). *Effective Cartel Prosecution.* Bonn: Bundeskartellamt.

CCPC. (2014). *Consumer Detriment Survey 2014.* Dublin: CCPC.

CMA. (2017). *The deterrent effect of competition authorities' work - Literature review.*

Connor, J. (2014). *Price Fixing Overcharges, 3rd Edition.*

Davies, S. (2010). *A Review of OFT's Impact Estimation Methods.* London: Office of Fair Trading.

Davies, S. (2013). *Assessment of the Impact of Competition Authorities' Activities.* Paris: OECD.

DBEIS, OPSS. (2020). *Insights into product recall effectiveness - Based on experimental evidence.* London: BEIS.

DPER. (2012). *Public Spending Code - Overview of Appraisal Methods and Techniques.* Dublin: Government of Ireland.

DPER. (2019). *Central Technical References and Economic Appraisal Parameters.* Dublin: Government of Ireland.

OECD. (2014). *Guide for helping competition authorities assess the expected impact of their activities.* Paris: OECD.

OECD. (2020). *Measuring consumer detriment and the impact of consumer policy - Feasibility Study.* Paris: OECD.

OFT. (2010). *A guide to OFT's Impact Estimation methods.* London: Office of Fair Trading.

OPSS. (2020). *Office for Product Safety and Standards Delivery Report 2019/20.* OPSS.

UBILGS. (2015). *The Impact of Local Authority Trading Standards in Challenging Times.* Department of Business, Innovation and Skills and The Trading Standards Institute.