Positive Impact 07/08

Consumer benefits from competition enforcement, merger control, market studies and market investigation references, and scam busting

July 2008

CONTENTS

1   EXECUTIVE SUMMARY

Introduction

1.1   This document describes the OFT's impact estimation work, focusing on the measurement of direct benefits to consumers. The purpose of this exercise is to measure the OFT's performance towards the 5:1 target agreed with HM Treasury - delivering direct financial benefits to consumers of at least five times its cost to the taxpayer, per year, on average, over the period 2008 to 2011.

1.2   We estimate that the OFT has saved consumers £326m per year on average over the period April 2005 to March 2008. The table below compares the above consumer savings estimate to the total OFT spend over the financial year 2007/8 estimated at £59m[1] indicating that we have met the 5:1 target for this period. The benefit-cost ratio is around 6 if we compare estimated consumer savings with OFT's total costs and around 10 if we compare them with total costs of areas covered by impact estimation.

Table 1.1: Estimated consumer savings and OFT costs for 2005-2008

	Annual estimated consumer savings (2005-08)[2]	OFT costs 2007/8	Benefit/Cost ratio
Total	£326m	£59m	6
Costs of areas covered		£32m	10

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[1] This is the total OFT expenditure minus costs of Consumer Direct and Consumer Credit Licensing which are funded separately and are not included within the 5:1 target.

[2] Consumer savings from the OFT's projects are estimated as an annual average for the period 2005-2008 except for market studies and abandoned mergers as these have been included for the first time.

1.3   The above consumer savings estimate only includes the direct impact of our work in the following areas: scams, mergers, enforcement of competition law, and market studies and reviews and market investigation references (MIRs).

1.4   Many of the beneficial outcomes of the OFT's work are not quantifiable in the time-frame available, and are not included in the total benefits shown in Table 1.1. For example, any psychological detriment averted by our actions, deterrence effect of our competition enforcement work, and impact of increased competition on productivity.

1.5   The estimated consumer savings in this report are ex ante and based on the best information available at the time of estimation.[3] Where evidence is weak, the assumptions underlying the estimates are conservative.

1.6   The following sections explain the underlying methodology used by the OFT to estimate the direct impact of its work on consumers over the three financial years 2005 to 2008.

1.7   We briefly discuss the key findings of our commissioned research into the deterrent effect of our competition enforcement and of research into the impact on productivity of ending resale price maintenance on books. Both were published in 2007/8.

Results

1.8   The OFT and the Competition Commission (CC) together operate the merger and market investigations regimes. We therefore consider estimates of consumer savings as a whole for these areas.

1.9   The total consumer savings from the merger regime is estimated at around £368m per year on average for the period 2005 to 2008. £115m of this may be attributed to the OFT which includes an 80 per cent share

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[3] The estimates are ex ante to the extent that the full impact of the completed projects is not observable..

of consumer savings from undertakings in lieu[4] (UILs) and abandoned mergers and 20 per cent from mergers blocked or amended by the CC following a reference.

1.10   We estimate that consumers directly saved £77m per year on average over the period 2005 to 2008 from the OFT's work on enforcement of competition law, that is, investigating cartels and other commercial agreements, and abuse of dominant position.

1.11   We estimate that consumers directly saved £12m per year from the OFT actions to stop illegal scams.

1.12   We estimate that consumers directly saved £266m per year as a whole from the market investigations regime. This includes market investigation references carried out by the CC, and market studies and reviews of undertakings and orders done by the OFT. We include market studies where the OFT's recommendations were implemented (rather than market studies published) over the financial year 2007/8. The estimate of consumer savings attributed to the OFT in this area is £122m per year.

Differences from Positive Impact 06/07

1.13   Positive Impact 07/08 builds upon the methodologies and assumptions set out in Positive Impact 06/07. For example we continue to take as given that all market interventions conducted by the OFT, and not overturned on appeal, are warranted; we implicitly assume that the institutional structure is sufficient to ensure that any incorrect decisions or planned decisions are identified and corrected.

1.14   This year, however, impact estimation covers more of the OFT's work. In particular:

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[4] Undertakings in lieu or UILs are cases where the OFT accepts binding undertakings from the merging parties as an alternative to referring the merger to the CC. The undertakings must be aimed at preventing or remedying the adverse competition effects identified.

- We include the impact of our work on abandoned mergers – that is, mergers that are abandoned once we refer them to the Competition Commission.

- For CA98, we estimate benefits on the basis of cases that have resulted in an infringement decision or in which the parties have admitted their involvement in the infringement as part of an agreed resolution. Where a resolution has been agreed with the parties but an infringement decision has not yet been issued, or where there is an ongoing parallel criminal investigation, we have accounted by imputing only part of the benefit to the period 2005-2008. The rest of the benefit will be allocated to the year in which all of the investigations have been completed.

- We include the impact of our market studies work.

- We split the impact of our work on market investigations with the Competition Commission (along the same lines as for mergers).

- We discuss the wider benefits of our work arising through the deterrent effect and briefly touch upon our impact on productivity.

Conservatism of our results

1.15   The impact estimates presented in this document are highly conservative because:

- We do not cover the impact of much of our work - non-scam consumer protection enforcement, consumer education, competition advocacy, consumer codes approval scheme, or the support we provide to Trading Standards services across the country.[5]

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[5] Previous evaluations have looked at some of those areas: the Consumer Codes Approval Scheme, October 2006, OFT 870, the Car Warranties market study, June 2006, OFT 852; support for Trading Standards in using Part 8 of the Enterprise Act, December 2006, OFT 549; and the use of the Consumer Direct database by Trading Standards services, February 2007, OFT871.

- We only include the direct financial impact of our interventions.[6] We do not estimate the impact of any psychological detriment averted by our actions.

- We cannot generally quantify the dynamic effects of increased competition on innovation, and efficiency/productivity.

Structure of document

1.16 Section 2 describes the broad methodology that applies to all the estimates of consumer savings presented. Consumer savings resulting from the work of Scambusters, merger control, competition law enforcement, and market studies and MIRs are presented in sections 3 to 6 respectively. In section 7, we discuss some of the wider benefits in the form of deterrent effect resulting from our work. Section 8 explains how we estimate the costs incurred by the OFT in each of the areas. Section 9 compares estimated consumer savings with costs incurred by the OFT and concludes.

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[6] While we do not include it in our aggregate estimate of consumer savings, we do estimate the impact of our deterrence effect in chapter 8. For further details see: 'The deterrent effect of competition enforcement by the OFT', November 2007, OFT963.

2   METHODOLOGY

Introduction

2.1   We have widened the scope of our impact estimation work in Positive Impact 07/08. In addition to the areas covered in the last Positive Impact, we also estimate the impact of our market studies work. We have also for the first time included impact estimates of mergers abandoned on referral to the CC. We present the benefits from mergers and market investigations as benefits of a joint regime of the OFT and Competition Commission.

Figure 2.1: Areas of OFT's work covered by Impact estimation (2005-2008)

	Positive Impact 2005/6	Positive Impact 2006/7	Positive Impact 2007/8
Mergers	✓	✓	✓
Enforcement of competition law	✓	✓	✓
Scambusters	✖	✓	✓
Market studies and Market Investigation References	✖	✖	✓
Consumer education	✖	✖	✖
Non-scam consumer protection enforcement	✖	✖	✖
Competition Advocacy	✖	✖	✖
Consumer Codes Approval Scheme	✖	✖	✖
Partnership work	✖	✖	✖

(OFT projects and programmes)

2.2   In estimating impact, we have been conservative in our assumptions and have based our estimates on the best information available at the time.

We will revise the estimates upwards or downwards if necessary as we gather more data while monitoring impact or carrying out ex post evaluations.[7]

2.3   We view our current methodology as a work in progress and will continue to develop it. We are open to changes to the methodology that could improve the way we estimate impact in the coming years, as long as these are based on robust evidence or sound academic research.

2.4   We are looking at ways to subject our impact estimation methodology to an external review. Some elements of our methodology are already reviewed by academic experts and feedback on impact estimation methods is actively sought by presenting at conferences in the UK and abroad.

Baseline assumptions

2.5   In general, we have followed the approach set out in Positive Impact 06/07 as we believe it to be fit for purpose, making minor changes where appropriate.

2.6   The OFT's goal is to make markets work well for consumers. For this reason, and in line with other competition authorities around the world, we estimate the benefit to consumers of the OFT's actions. We do not estimate the potential loss to business of the OFT's decisions.[8]

2.7   We only include the direct financial impact of our interventions in our aggregate estimate of consumer savings. We do not estimate the impact of any psychological detriment averted by our actions.

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[7] For further details please see 'Approach to calculating direct benefits to consumers', March 2008, OFT 955.

[8] We intend to gain a better understanding of regulatory costs while carrying out future evaluations wherever possible but we do not plan to incorporate estimates within our impact estimation work.

2.8   We cannot generally quantify the dynamic effects of increased
       competition on innovation, and efficiency/productivity.

2.9   We focus solely on estimating the impact of market interventions
       undertaken by the OFT. We take as given that all interventions not
       overturned on appeal are warranted. We assume that the institutional
       structure is sufficient to ensure that poor decisions, or planned
       decisions, are identified and corrected.

2.10   Where possible, we base our estimates on information obtained during
       our investigations. This information has already gone through a rigorous
       process of internal peer-review and the threat, and at times the actual
       procedure of external review by the Competition Appeals Tribunal (CAT).
       Where the relevant information is not clearly contained in the case
       documents, we have made assumptions based on international best
       practice, academic research, and case officer expertise.

2.11   All of our general and case-specific assumptions are conservative. We do
       not claim that estimates of our impact exactly capture consumer
       savings. Rather, by using conservative assumptions that are supported
       by the available evidence, we ensure that it is unlikely that less than our
       estimate has been saved.

2.12   We use the Consumer Price Index to take account of inflation. All figures
       are in March 2008 prices and are rounded to the nearest one million
       pounds.

2.13   We discount future consumer savings at the Social Discount Rate of 3.5
       per cent.[9]

2.14   We have agreed an 80-20 rule to split impact estimates with the
       Competition Commission for the merger regime and market
       investigations. The majority of impact would go to the 'main actor'

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[9] Treasury Green Book 'Appraisal and Evaluation in Central Government', Chapter 5.
   http://greenbook.treasury.gov.uk/chapter05.htm

body. In the merger regime for example, the OFT would be the main body where undertakings are accepted in lieu of reference, whereas the CC would be the main body if the merger was referred. The CC would be the main body for market investigation references while the OFT would be for market studies that could get referred to the CC and reviews of orders and undertakings.

3   SCAMS

Introduction

3.1   The OFT's Scambusters team was established in June 2005 to reduce consumer detriment caused by scammers. It does this by:

> Aim 1: Continuing to target scams causing the greatest consumer harm through direct action
>
> Aim 2: Empowering consumers through greater awareness
>
> Aim 3: Working with key service providers to disrupt scammers' route-to-market.

3.2   In this section, we estimate the consumer savings that have resulted from the direct interventions of the Scambusters team (aim 1).[10] We estimate that as a result of the OFT's direct intervention against scams, consumers have saved £33m over the 34 months the Scambuster team has been operating, which equates to £12m per year.

3.3   This is very likely to be a conservative estimate of consumer savings since:

- We only estimate the impact of one aspect of Scambusters' work. We do not estimate the consumer savings that have come from Scambusters' education campaigns (aim 2) or its coordination with key service providers (aim 3).

- We exclude from our calculations cases for which we cannot give a reliable estimate of historic detriment arising from a particular case. Of those cases where the OFT obtained assurances, formal undertakings or a court injunction, where there was some uncertainty, we adopt a conservative estimate.

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[10] For a fuller explanation of the methodology see Positive Impact 06-07 (OFT 928).

Methodology

3.4   We use figures for the historic financial detriment caused by scams to derive a forward-looking estimate of money saved by consumers due to the OFT's interventions. Estimates of consumer savings for each scam are based on three pieces of information: the estimated flow of historic detriment from the scam, the expected future duration of scam without the OFT's intervention, and an adjustment factor to take account of the likely effectiveness of the intervention in preventing future consumer detriment.

3.5   It is possible that multiplying the flow of historic detriment by expected duration will give upwardly biased estimates of the consumer savings from the OFT's intervention because the OFT's intervention may not stop a scam outright. The adjustment factor corrects potential upward bias of the estimates and accounts for any factors on a case-by-case basis that may limit the OFT's effectiveness in stopping future detriment. This adjustment factor is zero per cent if the intervention is fully effective and would go to 100 per cent if not effective at all.

3.6   The flow of historic detriment is an evidence-based estimate while the other two pieces of information are necessarily based on the expert judgment of the Scambusters team.

Discrete and Continuous scams

3.7   The methodology to estimate impact of our work on discrete and continuous scams is broadly the same. The differences lie in how we define the variables used to calculate the consumer savings.

3.8   The benefit of intervening against continuous scams arises from savings to consumers that would have suffered harm if the scam had continued. By intervening here, scammers are put out of action as they are prevented from continuing to disseminate misleading marketing material. We attempt to capture this by using the amount of time the scammer would have continued to operate without the OFT's intervention. The historic duration is defined as the number of months the scam has lasted

until the OFT intervened. The expected future duration is defined in terms of the number of months the scam would have continued.

3.9   Episodic scams, such as misleading mailings, consist of a number of discrete episodes, that is, a number of distinct promotions. The benefit of intervening against episodic scams can be estimated by accounting for the number of future episodes that the OFT intervention has prevented and the potential detriment that would have been caused in each episode. We use evidence of the historic flow of detriment to estimate the detriment caused in each episode.

3.10   In practice, the line between discrete and continuous scams is not as clear as one might think. For example, where misleading mailings are disseminated on a weekly basis it is inappropriate to characterise them as discrete events since the duration between consecutive scams is very small. Therefore we have categorised scams that fall into this grey area as continuous rather than discrete.

Results

3.11   The table below contains a scam-by-scam breakdown of how consumer savings from direct OFT interventions were calculated. The names of the scams have been anonymised to protect commercial confidentiality. The savings are aggregated to give a figure for total consumer savings.

Table 3.1: Scam-by-scam breakdown of consumer savings due to OFT action

Scam name	Flow of Historic financial detriment (£m) per episode	Detriment estimated per	Expected duration without OFT intervention	Adjustment factor (per cent)	Consumer saving (£m)
Case 1	0.69	month	12	0	8.32
Case 2	0.42	month	8	60	1.38
Case 3	0.25	promotion	8	0	1.86
Case 4	0.74	promotion	4	30	2.11
Case 5	0.17	month	10	50	0.88
Case 6	0.03	month	12	50	0.18
Case 7	0.01	month	12	0	0.07
Case 8	0.43	promotion	6	0	2.60
Case 9	0.19	promotion	6	0	1.14
Case 10	0.05	promotion	1	70	0.01
Case 11	0.14	promotion	4	40	0.33
Case 12	0.12	promotion	3	50	0.18
Case 13	0.45	promotion	2	10	0.81
Case 14	0.20	month	24	90	0.49
Case 15	0.20	month	24	50	2.39
Case 16	0.08	promotion	5	10	0.38
Case 17	0.96	month	24	65	8.10
Case 18	0.67	promotion	3	70	0.60
Case 19	0.07	promotion	9	50	0.33
Case 20	0.03	month	36	30	0.60
Total Consumer Saving (£m)					**33**

3.12   At present, reasonably reliable evidence of historic detriment is not available for about one in five cases of scams successfully targeted by the Scambusters team. The overall pool of knowledge about scams and scammers is small compared to that concerning other areas of the OFT's work given the inherent difficulties in identifying the perpetrators and accurately quantifying consumer losses, particularly where scams originate from overseas.

4   MERGERS

Introduction

4.1   Whereas most other interventions by the OFT cause a change in a market, interventions resulting from merger control work to prevent market structure from changing. One way to estimate the impact of a decision to block a merger is to use an economic model to simulate how prices, demand, and market share might have changed were the merger to have gone ahead.

4.2   Positive Impact 06/07 used a detailed methodology based on merger simulation to estimate the consumer benefit from merger control. We have followed that simulation methodology here. The estimates of consumer benefit resulting from this methodology represent conservative point-estimates rather than lower-bound estimates reported in Positive Impact 05/06.[11]

4.3   In Positive Impact 06/07 we estimated consumer savings from proposed mergers blocked or amended by the OFT and the CC. This year we have also included consumer savings from mergers that are abandoned on referral to the CC.

4.4   Here, we only estimate the direct consumer benefits of merger policy. We have also published research by Deloitte into the deterrent effect of the UK competition regime, including mergers. This work is described in section 8.

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[11]The 'conservative point' estimate of consumer savings from a merger intervention is our best estimate using the merger simulation methodology, where any assumptions made to run the model are conservative.

Methodology

Apportioning benefits between the OFT and CC regime

4.5   The OFT is the first stage in a two stage merger control regime. Subject to certain limited exceptions, the OFT has a duty to refer a merger to the CC for further investigation if it believes that a relevant merger situation has been created and that it is, or may be, the case that the merger has resulted, or will result, in a substantial lessening of competition (SLC). If certain conditions are satisfied, the OFT may also accept binding undertakings from the merging parties as an alternative to making a reference to the CC. For mergers that are referred, the CC, after further investigation, will decide whether to clear, amend or block the merger.

4.6   Allocating the consumer savings between the OFT's first stage and the CC's second stage is necessarily arbitrary. As a matter of procedure, we have agreed with the CC that the OFT is responsible for estimating consumer savings from UILs of a CC reference and of mergers abandoned after referral to the CC and that the CC estimates the consumer savings from mergers which they block or amend. This way the body closest to the final decision is responsible for estimating the decision's impact.

4.7   We have then agreed to apportion the benefits of merger policy according to an 80-20 rule. The body closest to the final decision is allocated 80 per cent of the estimated consumer savings while the other is allocated the remainder. As such, the OFT is allocated 80 per cent of the consumer savings resulting from undertakings in lieu of reference and abandoned mergers; and 20 per cent of the consumer savings resulting from any CC intervention.

Abandoned mergers

4.8   For 2007/8, we have for the first time estimated the consumer savings resulting from mergers which are abandoned on referral to the CC. Since the merger is abandoned before the CC makes a decision, we cannot make the implicit assumption that all of these mergers would have given

rise to consumer detriment, since we cannot assume that they would have generated a CC finding of SLC.

4.9   Instead, we assume that there is a 50 per cent probability that the merger would have resulted in consumer detriment (that is the CC would have made an SLC finding). This assumption is based on the CC hit rate, the proportion of mergers referred to the CC by the OFT for which the CC finds that the merger may be expected to result in an SLC. Consequently we estimate the consumer savings resulting from abandoned mergers using the same methodology as for UILs, but then divide the final estimates by two.

Scope of merger simulation

4.10   Our merger simulation methodology, in its current state, is best suited to estimating the unilateral effects of horizontal mergers where firms compete on price or quantity. It is not currently suited to modelling vertical mergers or coordinated effects.

4.11   Due to time and resource constraints we have only used merger simulation to estimate the impact of the UILs received by the OFT during the financial years 07/08 and 06/07. For each merger we estimate a lower, mid, and upper estimate of consumer savings to reflect uncertainty in inputs.

4.12   We have not simulated the mergers which resulted in UILs for the year 05/06, for mergers abandoned on referral to the CC, and for one merger which resulted in a UIL in 07/08 for which the simulation methodology was not appropriate.[12]

4.13   We estimate consumer savings for the cases that we do not simulate by the following method:

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[12] The relevant market in this case had certain features which meant the simulation methodology was unsuitable.

- Calculating the weighted average of the percentage of market turnover accounted for by our low estimates of consumer detriment

- Applying this average to the turnover of the relevant markets that we have not modelled.

Mathematically:

$$CS_j = T_j \times \frac{\sum\limits_{i=1}^{N} \dfrac{CS_i}{T_i}}{N} \tag{1}$$

Where:

CS_j	=	Consumer savings from unsimulated undertaking j;
T_j	=	Turnover in relevant market in unsimulated undertaking j;
N	=	Number of simulated undertakings
CS_i	=	Consumer savings from simulated undertaking i;
T_i	=	Turnover in relevant market in simulated undertaking i;

4.14 For abandoned mergers, we use this methodology but then divide the resulting estimate by two.

4.15 For two specific cases, we have not used the above methodology to estimate consumer savings as these mergers had certain features which

required more conservative assumptions. We have instead estimated consumer savings by relying on the judgment of case officers to make more conservative assumptions. In both cases the resulting estimates are lower than would have been the case had we applied this methodology.

Merger simulation

4.16   The simulation methodology involves using economic models to simulate how prices, demand, and market share might have changed were the merger to have gone ahead.

4.17   Simulating the effect of a merger is a three step process of comparative statics:

>   Step 1: Calibrate the models to describe as accurately as possible the pre-merger state of the market

>   Step 2: Use the calibrated models to predict what effect a change in market structure would have on price and demand. Compare the pre- and post-merger price and demand estimates to assess the likely impact of the merger

>   Step 3: Multiply this by an estimate of the amount of time it might take for entry and other market changes to correct for any anti-competitive effects of the merger (usually two years).

4.18   Steps 1 and 2 predict the effect of the merger on price and demand which can be used to estimate annual consumer savings. In order to estimate the total consumer savings arising from merger control we also need to estimate how long these effects would last. Step 3 converts our estimate of annual consumer savings into total consumer savings. Off model adjustments may also be necessary during step 3 to accommodate any properties of the merger or market not picked up by the models.

4.19 A more detailed description of the models and process can be found in the companion document *Consumer savings from Merger control*.[13]

Results

Undertakings in lieu of a reference and abandoned mergers

4.20 Table 4.1 summarises the total estimates of consumer savings from undertakings taken by the OFT in lieu of a reference to the CC and from mergers abandoned on referral to the CC for the years 05/06 to 07/08. Three mergers were simulated in 06/07 and three in 07/08.

Table 4.1: Estimated consumer savings from undertakings in lieu and abandoned mergers

	Total market turnover	Total consumer savings
UILs 07/08 (simulated)	£233m	£29m
UILs 06/07 (simulated)	£385m	£67m
UILs not simulated and abandoned mergers	£1,177m	£86m
Average 05-08		**£69m**[14]

CC Decisions

4.21 The CC published an estimate of the impact of their merger decisions in their Annual Report. The CC adopts the assumption that decreased competition, and its effects on market outcomes such as prices, would have lasted for three years after the CC intervention.[15] To obtain total

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[13] See 'Consumer Savings from Merger control: Merger simulation for Impact estimation' April 2007, OFT 917.

[14] This figure is not the average of the three figures above as we have only included abandoned mergers from this year.

[15] Competition Commission 2005/2006 Annual Review, page 5.

consumer savings, the CC multiplies its annual estimates of consumer savings by three. We, however, have discounted the CC estimates by 3.5 per cent per year and converted them to 2008 prices to be consistent with our own estimates. The figures published by the two bodies are not immediately comparable because of the differences in approach but they are derived from the same data. Table 4.2 summarises the total consumer savings from decisions made by the CC after referral.

Table 4.2: Consumer savings from CC decisions

Financial Year	Discounted CC estimates of total consumer savings[16]
05/06	£94m
06/07	£11m
07/08	£791m
Total	**£896m**
Average 05-08	**£298m**

Summary

4.22   Table 4.3 summarises the consumer savings apportioned to the OFT arising from merger control for the financial years 2005 to 2008.

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[16] These are CC's total consumer savings estimates (that is annual estimates multiplied by three) discounted by 3.5 per cent and then converted to 2008 prices. The estimates for 2007/8 are provisional estimates provided by the CC in anticipation of their 2007/8 Annual Review that were available at the time of drafting this report. One case included in 2007/8 is under review at the CAT. Therefore, the CC estimates for 2007/8 may need to be updated in next year's Positive Impact. For details on CC estimates for 05/06 and 06/07 see Competition Commission Annual Review for the two financial years.

Table 4.3: Consumer savings from OFT merger control

	Average savings per year	Percentage to OFT	Consumer savings apportioned to OFT
UILs and abandoned mergers	£69m	80	£55m
CC decisions	£298m	20	£60m
Total	**£368m**		**£115m**

4.23   During the past three financial years the OFT and CC merger regime has saved consumers £368m. £115m of this is apportioned to the OFT.

5 ENFORCEMENT OF COMPETITION LAW

Introduction

5.1 The OFT conducts a range of activities to ensure that the Competition Act (CA98) is enforced and implemented by formally investigating anti-competitive practices and giving informal advice.

5.2 Under Enterprise Act 2002 (EA02) we have additional powers in cartel investigations to target individuals using criminal and civil sanctions.

5.3 We estimate the direct financial benefit to consumers from competition enforcement at £77m per year on average for the period 2005-08.[17] We do not include in this estimate the benefits arising from deterrence, precedent setting, or informal advice.

Methodology

5.4 Over the financial years 2005-2008 all the CA98 investigations concluded by the OFT were Chapter 1 horizontal agreements (cartels). We have broadly followed the methodology set out in Positive Impact 2006-07 for estimating their impact.

5.5 Consumer savings are estimated for those cases where an infringement decision has been issued or the parties have admitted their involvement in the infringement as part of an agreed resolution. In the latter case, only a portion of the total benefit is imputed and the rest will be imputed once the infringement decision has been issued or, where there is an ongoing parallel criminal investigation, once all investigations have been completed.

[17] We rely on a combination of academic research and international best practice to estimate the likely impact of our interventions in all cases, irrespective of whether the infringement decision included a finding of effect. For the avoidance of doubt, the inclusion in these figures of consumer savings estimates for those cases where the decision was based solely on the anti-competitive object of the parties' conduct should not be treated as constituting or implying a formal finding as to the effect of the infringement.

5.6   This approach does not impact on the total benefits estimated for a particular case but just on how we allocate them across years of the Spending Review period (2008-2011).[18]

5.7   We estimate consumer benefits as follows:

- First, we estimate the annual impact (*a*) on consumers of price-fixing by multiplying the turnover (*t*) of the affected goods and services by the price increase (*p*) caused by agreement. Mathematically:

$$a = t \bullet p \qquad\qquad (2)$$

- Second, we estimate future consumer savings (*f*) by multiplying the annual impact by the number of years (*c*) we believe the cartel may have remained operational, but for the OFT's intervention, and adjusting to take account of the social discount rate (*ρ*). Mathematically:

$$f = \sum_{s=1}^{c} a / (1+\rho)^s \qquad\qquad (3)$$

5.8   Below is an overview of our methodology.[19]

Turnover

5.9   The colluding parties' turnover in the relevant market for the affected goods and service is used to estimate consumer benefits unless the case officers believe this to be inappropriate.

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[18] This is the period covered by OFT's Comprehensive review settlement agreed with HMTreasury.

[19] For a fuller exposition refer to 'Positive Impact 2006/07' July 2007, OFT 928.

Price rise

5.10 Ideally, the price rise caused by the agreement has been identified during the investigation. Where this information has not been identified, case officers may be able to estimate a likely price effect, perhaps from price analysis. At other times we rely on a mixture of case officer intuition, international best practice, and recent academic research.

5.11 Where anti-competitive practices represent price-fixing, market sharing or bid-rigging and case specific information is not available, we adopt the estimated price rise of 10 per cent. Academic evidence suggests that this is likely to be highly conservative.[20]

5.12 Practices that restrict competitive pressure but do not consist of price-fixing, market sharing or bid-rigging agreements also lead to consumer harm. There is uncertainty as to the likely impact of such practices and, in the interest of presenting a conservative estimate of impact, we adopt a lower default price increase of five per cent. (This is consistent with Positive Impact 06/07).

Time

5.13 To estimate the additional duration of the cartel but for the OFT's intervention we use a methodology that defines expected future duration as a function of the historic duration of a cartel.

5.14 Specifically, using data from Connor and Zimmerman (2005)[21] we find that if the duration of the cartel was seven years or less so far, it can be expected to last an additional six years.[22] If the duration of the cartel

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[20] For more information see 'Positive Impact 06/07' July 2007, OFT 928.

[21] 'Determinants of Cartel Duration: a Cross-Sectional Study of Modern Private international Cartels' Jeffery E. Zimmerman and John M. Connor. Purdue University Working Paper, April 2005.

[22] Other research in this area show similar results as outlined in Positive Impact 06/07.

was more than seven years, it can be expected to last 1.4 times the time it has already lasted minus three and a half years. However, this assumption is modified to be more conservative where case officer's judgment suggests otherwise.

Results

5.15 The OFT's interventions saved consumers £230m on aggregate between the financial years 2005 and 2008. This works out as an annual average consumer saving of £77m on a discounted basis.

6   MARKET STUDIES AND MARKET INVESTIGATION REFERENCES

Introduction

6.1   In this section, we explain how we estimate the impact of market studies, MIRs, and review of orders and undertakings - an area that we have included this year for the first time in the Positive Impact calculations. Given the wide variety of projects that are covered under this heading, the exact methodology may differ from case to case. However, we outline a broad approach that ensures that assumptions are consistent and that the inclusion of projects is based on objective criteria.

6.2   In estimating consumer savings, we consider the impact of the market investigations regime as a whole and include impact of market investigation references carried out by the CC.

6.3   Overall annual consumer savings from market studies, market investigation references, and reviews of undertakings and orders are estimated at £266m for the three year period 2005 to 2008.[23] Of this, £122m has been apportioned to the OFT. This includes a proportion of

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[23] In principle we want to capture relevant projects over the last three financial years (2005 to 2008) but given that this is a new area, the estimates we present are for the projects where recommendations were implemented over the last financial year. Unlike other areas where impact estimates are averaged over three years, impact estimates of the OFT's market studies are the total estimated consumer savings for the year 2007/8. CC estimates are presented as an annual average over 2006-08 and include those MIRs where the CC published findings/ recommendations over the period.

consumer benefits from CC's intervention apportioned to the OFT based on a 80:20 split that we have agreed with the CC.[24]

6.4   The estimated consumer savings for OFT market studies and review are *ex ante* and based on the best information available at the time of estimation. We may, however, revise the benefit cost ratio for each reporting period as new information becomes available.[25] For example, where evidence is weak, the assumptions used to estimate benefits are conservative. As we continue to embed impact estimation, monitoring, and evaluation in our project work, though, these estimates, and related assumptions, will increasingly be based on information obtained through monitoring key indicators at agreed milestones and actual evaluations.[26]

6.5   The aggregate estimates exclude projects where the benefits to consumers are difficult to measure. We therefore expect the estimate for consumer savings for the market studies area as a whole to be conservative. We only include those market studies where the OFT's recommendations have been implemented over the relevant financial period, starting with 2007/8.

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[24] For market investigation references carried out by the CC, 20 per cent of impact is apportioned to the OFT and 80 per cent to the CC. For the OFT market studies and reviews of undertakings and orders that involve or could involve the CC, 80 per cent is apportioned to the OFT and 20 per cent to the CC. For fact finding reports, and studies where referral to the CC is not considered as a possible option, the OFT is attributed with 100 per cent of the impact.

[25] For more information see 'Approach to calculating direct benefits to consumers' March 2008, OFT955.

[26] We commission in-depth analysis of some of our projects. These ex post evaluations of impact are less frequent than monitoring. They will sometimes be conducted more than three years after project completion, when the full effects of an intervention have, or should have, taken place. So in some cases they will not feature in our estimates of impact for the purpose of the '5:1' target. As such, the value for money ratio for CSR cannot rely only on project evidence from ex post evaluations, but also has to involve impact estimation and monitoring of market developments.

Approach

6.6   The impact estimates in this section cover direct benefits to consumers from OFT market studies, reviews or undertakings and orders and MIRs.

6.7   We include those market studies where the OFT has made recommendations that were implemented in 2007/8 and those that are likely to have had an impact on consumers within the relevant period, for example, the launch of a consumer awareness campaign.

6.8   The approach used to estimate impact is outlined in the OFT document - Approach to calculating direct benefits to consumers (March 2008, OFT955). Typically, we develop an impact estimation plan for each project that sets out the outcomes that the project will achieve, an estimate of impact, and a plan to monitor whether the impact occurs. We plan to update the impact estimates upwards or downwards if we obtain better data in the process of monitoring. The OFT is committed to carrying out an ex post evaluation of at least one market study per year. Results from any in-depth evaluation work will also be used to update the impact estimates where possible. However ex post evaluations are less frequent than monitoring and are sometimes conducted three years after project completion and in such cases do not feature in our estimates of impact for the purposes of the 5:1. We would therefore rely more on information obtained through monitoring.

6.9   We aimed to be broadly consistent with other areas covered in this document in our approach to estimate impact of our market studies work. However, we allowed some flexibility to account for the varied nature of projects covered in this area.

6.10   For example, we typically aim to estimate consumer savings from an estimate of market size (turnover in the relevant market for the affected products), an impact variable (the percentage change in price), and the likely duration of the impact. This reflects our approach to estimating consumer savings from competition enforcement. Where relevant an adjustment parameter would be included to account for factors other than the OFT intervention that might affect the market. However, this is

not always possible and for one study included this year, consumer savings were calculated as a certain percentage of estimated consumer detriment averted due to the OFT intervention.

6.11   Data on turnover are generally available to the market studies team. Some of the other variables may be judgment-based estimates derived using team members' expertise and best information available at the time of estimation. Over time, because of the embedding process, these estimates will be based as much as possible on monitored data and evidence from *ex post* evaluations.

6.12   When we include impact estimates of reviews of orders and undertakings, we will make sure that we do not re-claim benefits from the original investigation to avoid any double-counting.

Results

6.13   The table below sets out consumer savings from the OFT and CC interventions.

Table 6.1: Consumer savings from market studies/market investigation references/ reviews of undertakings and orders[27]

	Estimated annual consumer savings for 2007/8	Estimated annual consumer savings apportioned to the OFT for 2007/8
OFT studies	£98m	£88m
SME banking review	£50m	
Internet shopping study	£48m	
CC studies	£168m	£34m
Total	**£266m**	**£122m**

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[27] Estimates of consumer savings from OFT studies are given for the financial year 2007/8. CC estimates are presented as an average over the period 2006-08. For details on CC's estimates see 'CC Annual report and Accounts 2007-08'.

7   WIDER BENEFITS

Introduction

7.1   In Positive Impact in previous years, we have focused on estimating direct benefits to assess whether we are meeting the 5:1 target agreed with the Treasury. Another high level target is to demonstrate the wider benefits of the OFT's work, such as deterring future anti-competitive behaviour and increasing consumer and business confidence in markets.

7.2   Below we discuss the key findings from our research into the deterrent effect of competition enforcement. Towards the end of this section, we also touch upon our work on the evaluation of the impact on productivity of the ending of retail price maintenance in books.[28]

Deterrent effect of competition enforcement

7.3   The OFT commissioned Deloitte[29] to find evidence of the scale of the deterrent effect of our competition law decisions and the merger control activities of the UK competition authorities.[30]

7.4   At the time of the publication of the Deloitte report we published a discussion document[31] which asked views on many of the issues raised by the research. The responses received showed significant support for the Deloitte's methodology. The paragraphs below briefly describe the

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[28] For further details please see 'An Evaluation of the impact upon productivity of ending resale price maintenance on books', February 2008, OFT 981.

[29] For further details please see 'Deterrent effect of competition enforcement by the OFT', November 2007, OFT 962.

[30] For mergers, the deterrent effect of the competition authorities was examined across both institutions due to the difficulty of disentangling the OFT's impact from that of the CC.

[31] For further details please see 'The deterrent effect of competition enforcement by the OFT. Discussion Document', March 2008, OFT 963a.

key findings of the Deloitte report, together with potential implications for consumer savings.

Key findings

7.5 Deloitte adopted a survey approach; surveying UK companies and senior competition lawyers separately between September 2006 and March 2007. This was supplemented with interviews with competition lawyers, economists and managers with compliance responsibility between May 2006 and November 2006.

7.6 Deloitte used survey responses to measure the scale of deterrence. They calculated ratios of agreements and initiatives abandoned or significantly modified due to the risk of an OFT investigation, to those which resulted in a CA98 decision for the period 2000 to 2006. Mathematically:

$$A_c : E_c \hspace{4cm} (4)$$

Where:

A = number of initiatives existing or proposed that were abandoned or modified.

E = number of CA98 decisions

C = CA98 area e.g. cartels, commercial agreements or abuses.

Scale of deterrence

7.7 Table 7.1 gives the ratios estimated by Deloitte of the scale of deterrence.

Table 7.1: Deterrence ratios

	Legal survey	Company survey
Cartels	5:1	16:1
Commercial agreements	7:1	29:1
Abuses	4:1	10:1
Mergers	5:1	-

7.8   The company survey's ranking is similar to the legal survey results, but the ratios are much larger. One possible explanation for the higher ratios is the existence of deterred activity on which external advice is not taken.

7.9   For mergers, the legal survey suggests that over the period 2004-06, at least 5 proposed mergers were abandoned or modified on competition grounds before the OFT became aware of them for each merger blocked or modified following interventions by the UK competition authorities.

7.10   If we apply the ratios from the legal survey to our estimates (£192m) of direct effect of competition enforcement and merger control over the years 05/06 to 07/08 we find that benefits to consumers would be at least a further £960m per year. This figure should be viewed as an approximation that provides a guide of the scale of the deterrence effect rather than an absolute value.[32] It is based on the average deterrence effect of our competition enforcement between 2000 and 2006, and thus may be different from the marginal deterrent effect of our current competition enforcement.

7.11   Currently, we have no information on the marginal deterrent effect of our actions but we hope to commission research on this in the future.

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[32] The findings are empirical rather than of a relationship between direct impact and deterrence. We also do not know whether the initiatives/mergers abandoned or modified are larger or smaller than the ones undergoing an investigation.

Productivity

7.12   The OFT also commissioned research by the Centre for Competition
        Policy at the University of East Anglia to evaluate the impact upon
        productivity of the ending of retail price maintenance (RPM) on books.
        This research found that the ending of the RPM led to new entry from
        supermarkets and internet sellers resulted in a positive contribution to
        the industry productivity, with industry productivity increasing by as
        much as one third between 2001 and 2005. So far, new entry has not
        stimulated an increase in the productivity of existing bricks and mortar
        retailers. On the contrary, they have suffered negative productivity
        changes due to their inability to downsize and consolidate in line with
        declining output. This may though be expected to change over time.

8   COSTS

Introduction

8.1   In this section we present the OFT's costs for the year 2007/8. We report on the total cost of the OFT (excluding Consumer Direct and Consumer Credit Licensing)[33] which is used to inform the 5:1 target, and on the costs of the individual areas for which we have estimated the consumer savings above.

Total costs

8.2   The total cost of the OFT (including running costs, litigation costs and capital) minus direct operating costs attributable to Consumer Direct and Consumer Credit licensing for the year 2007/8 is £59m.

Partial costs

8.3   The table below presents cost estimates for the areas for which we have estimated consumer savings: scams, mergers, competition enforcement and market studies. These estimates give an idea of the relative expenditure on each of these areas.

8.4   These costs include direct salary costs of project teams, other costs such as consultancy costs, as well as share of overhead and management costs in proportion to employee headcount.[34]

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[33] CCL is self-funded areas and resources for Consumer Direct are ring-fenced. Neither are included within the 5:1 target agreed with HMTreasury.

[34] OFT Annual Report 2007/8 reports the estimated consumer savings of £326m and costs of £26m under objective 1. These differ from the partial costs reported below. The objective 1 costs in the OFT Annual report include costs of Consumer Protection enforcement and Consumer credit that are not included in our partial cost estimates. However, we have included overheads and management costs that are not covered under objective 1.

Table 8.1: Annual costs by area for financial year 2007/8

	Annual OFT costs
Scambusters	**£1**
Merger control	**£5m**
Competition enforcement	**£18m**
Market studies	**£8**
Total	**£32m**

9   CONCLUSIONS

9.1   The table below summarises our estimates of consumers savings and costs for each of the areas of the OFT's work covered in this report.

Table 9.1: Estimated annual consumer savings and OFT costs for 2005-2008

	Estimated average annual consumer savings over 2005-08[35]	Annual OFT costs for 2007/8	Benefit/Cost ratio
Scams	£12m	£1m	
Mergers	£115m	£5m	
Competition enforcement	£77m	£18m	
Market studies	£122m	£8m	
Total benefit relative to OFT partial costs	£326m	£32m[36]	10
Total benefit relative to OFT total costs	£326m	£59m[37]	6

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[35] Consumer savings from the OFT's projects are estimated as an annual average for the period 2005-2008 except for market studies and abandoned mergers as these have been included for the first time.

[36] This includes costs of areas included in this report for which we estimate impact.

[37] This is total OFT costs minus costs of Consumer Direct and Consumer Credit Licensing.